Building Sound Finance in Emerging Market Economies

Edited by
Gerard Caprio,
David Folkerts-Landau,
and Timothy D. Lane

Proceedings of a Conference held in Washington, D.C.
June 10 - 11, 1993

International Monetary Fund
World Bank
In the process of transition from central planning to a market economy, one of the key tasks facing authorities is to create the conditions for a sound financial system. Price stability, which can come only with stable macroeconomic management, is essential for market activity—and finance—to flourish. Needed improvements in fiscal and monetary policies, however, must go hand in hand with structural reforms, including reforms of the financial system and restructuring of the real sector. If the essence of transition is to increase the private sector's share of economic activity, the task of the financial sector is to fund this process, that is, both to mobilize funds by offering attractive rates of return and to allocate capital to its most efficient uses based on the signals sent by the market. Building a sound, efficient financial system is thus critical to ensuring that prudent macroeconomic policies will translate into sustained economic growth.

The importance of structural reforms in the financial area has been clearly recognized through the Fund's extensive technical assistance programs in many economies in transition, as well as the World Bank's support for financial and real sector restructuring. It is likewise essential for our institutions to be engaged in this process at another level: the development, discussion, and dissemination of ideas. Transition is a new phenomenon, one that can benefit from the application of general principles, combining the insights of economic analysis with the experience of both industrialized and developing countries, as well as the early experience of the economies in transition themselves. It is in this spirit that the Conference on Building Sound Finance in Emerging Market Economies was held, under the auspices of the Fund and the World Bank.

The conference attracted a distinguished gathering of academic experts and policymakers from both industrialized countries and economies in transition, as well as staff members of the two international financial institutions. The papers presented during the conference, which are collected in this volume, provoked lively and thoughtful discussion—a good part of which is included here—on a wide range of issues. These included methods of dealing with the legacy of bad debts, the appropriate design of a payment system, fostering a financial structure best suited to the changing landscape that will characterize transitional economies over the next decade, and an analysis of disruptions in credit supply that have been seen in
some economies in transition. Although, in the end, there are still many questions on which there is not general agreement, the exchange of views has been useful in advancing our understanding of these issues.

MICHEL CAMDESSUS
Acknowledgments

The papers collected in this volume were presented at the Conference on Building Sound Finance in Emerging Market Economies, which was sponsored jointly by the International Monetary Fund and the World Bank and held at IMF Headquarters in Washington, D.C., June 10-11, 1993.

The editors are especially indebted to Elin Knotter of the Fund's External Relations Department, who edited the entire manuscript and coordinated the production of this volume. Norma Alvarado provided expert word processing assistance.

Finally, the editors thank all the participants in the conference, who contributed to two days of stimulating discussions.
Contents

Foreword ......................................................... v
Acknowledgments ............................................. vii

1. Introduction
   Gerard Caprio, David Folkerts-Landau, and
   Timothy D. Lane ........................................ 1

Part I. Old and New Debts

2. Financial and Enterprise Restructuring in Emerging
   Market Economies
   Steven M. Fries and Timothy D. Lane ............... 21
   Comment—Georg Winckler .............................. 47

3. Dealing with Bad Debts—The Case of Poland
   Stefan Kawalec, Slawomir Sikora, and
   Piotr Rymaszewski ..................................... 51

4. Financial Underdevelopment and Macroeconomic
   Stabilization in Russia
   Barry W. Ickes and Randi Ryterman ................. 60
   Comment—Jacek Rostowski ............................ 84

Part II. The Central Bank and the Payment System

5. Payment System Reform in Formerly Centrally
   Planned Economies
   David Folkerts-Landau, Peter Garber, and
   Timothy D. Lane ....................................... 91

6. The Russian Payment System
   Bruce J. Summers ..................................... 113
   Comment—David B. Humphrey ........................ 129

Part III. Creating a Sound Financial Structure

7. The Role of Financial Institutions in the Transition to a
   Market Economy
   Hans J. Blommestein and Michael G. Spencer ...... 139
   Comment—Jacob S. Dreyer ............................ 190
The following symbols have been used throughout this paper:

- to indicate that data are not available;
- to indicate that the figure is zero or less than half the final digit shown, or that the item does not exist;
- between years or months (e.g., 1991-92 or January-June) to indicate the years or months covered, including the beginning and ending years or months;
- between years (e.g., 1991/92) to indicate a crop or fiscal (financial) year.

"Billion" means a thousand million.

Minor discrepancies between constituent figures and totals are due to rounding.

The term "country," as used in this paper, does not in all cases refer to a territorial entity that is a state as understood by international law and practice; the term also covers some territorial entities that are not states, for which statistical data are maintained and provided internationally on a separate and independent basis.
Building a sound, efficient financial system is at the heart of the transformation from central planning to a market economy. The vital function that the financial system performs in a market economy in allocating resources over time is well recognized. Perhaps even more important is the financial system’s role in coordinating economic activity: the cost of finance and its availability for a particular use is fundamental in determining which productive investments are undertaken. Financial discipline—the condition that debts incurred must eventually be repaid—is essential in ensuring that investments undertaken are socially efficient. At the same time, control through the financial system permits decentralization in decision making—the hallmark of a market economy: provided that some entrepreneur or group of investors is prepared to assume the risks of undertaking a project with borrowed funds and that some lender believes that the loan will be repaid, the project can go ahead.

In the world of central planning, finance plays a passive record-keeping role, while the allocation of resources is controlled mainly by the central plan itself. In this environment of soft budget constraints, the solvency of participants is irrelevant to lending decisions: the criterion under which credit is granted is that the activity for which the funds are needed must be stipulated in the plan. With the abolition of central planning, a coordination vacuum emerges. To fill this vacuum, it is necessary that the conditions be established under which lending is rationed by price and constrained by borrowers’ solvency—that is, that there be sound, market-based finance.

Building sound finance in emerging market economies requires more than observing and imitating the institutions of mature market economies. There are at least four additional considerations that justify further investigation. First, there is the need to come to grips with the legacy of central planning—and, to a certain extent, of the sojourn
Gerard Caprio, David Folkerts-Landau, and Timothy D. Lane

in the no-man's land between plan and market. In many countries, a sizable portion of enterprises and financial institutions are already insolvent, owing to the debts accumulated not only under central planning but also in most cases in the succeeding period of output collapse. This legacy implies that suddenly imposing hard budget constraints on all agents is an unworkable solution—and indeed is unlikely to be tried—because of the immediate, widespread, and largely arbitrary bankruptcies that would result.

A second consideration is that finance may play a critical role in transforming the economy itself, as distinct from serving a working market economy. In particular, finance is—or can be—crucial in facilitating the transfer of ownership from state to private sector, and in determining what kind of structure to establish to ensure that privatization results in genuine changes in the way enterprises are run.

A third issue is that formerly centrally planned economies typically face more severe constraints than do mature market economies: given their limited financial and human resources, they cannot incorporate every detail of a sophisticated financial system. This makes it important not to import institutions wholesale but to assess carefully which features of the financial system are basic and which are secondary—and particularly, which features depend on the pre-existence of other institutions. For example, establishing sophisticated money and securities markets may depend on the pre-existence of efficient banks—in which case the latter should be given priority and the others left until later. Most would agree that one should resist the dazzle of high-tech finance and concentrate on the basics, but there is room for disagreement on which features are indeed basic.

A final problem is that the financial systems prevalent in advanced market economies are by no means all alike, and so there continues to be debate on which version should be emulated. Discussions in the context of emerging market economies have brought to the fore the differences between various systems—and in particular, advice from Anglo-Saxon countries tends to be different from that coming from either Continental Europe or Japan. It is important to assess which features of these alternative capitalist systems would be useful for formerly centrally planned economies and which might be less appropriate.

These are some of the issues that have guided research and discussion of financial sector reforms in emerging market economies. These

---

1Here, as in many areas, the exception that proves the rule is east Germany, which because of its own particular circumstances has adopted an existing system lock, stock, and barrel.
themes also run through the papers collected in this volume. The papers are the proceedings of a conference sponsored by the IMF and the World Bank held at IMF headquarters on June 10–11, 1993. Participants included staff members of these two sponsoring institutions, as well as academic experts and policymakers both from formerly centrally planned economies and from developed market economies. The participants were chosen to give a wide range of insights into the issues involved in building a financial structure suitable for economies in transition.

The papers were organized around four main topics. The first is the problem of old and new debts—not only how best to clear up bad debts but how to ensure that new debt is properly priced. The second is the development of a sound and efficient payment system, particularly with regard to how to limit the associated credit risks. The third is the development of an appropriate financial structure—including the respective roles of banks and other financial institutions in the financial system, the problems of supervision and regulation, and the issues involved in bank privatization. The fourth is the importance of credit in the development of the real economy. In the remainder of this overview paper, each of these topics will be discussed briefly.

Old and New Debts

Establishing a sound financial structure in emerging market economies typically means trying to enforce financial discipline in the face of widespread insolvency. Enterprises had often accumulated large debts under central planning, which turned into bad debts for reasons that are mentioned in the paper by Steven Fries and Timothy Lane, and elaborated in Georg Winckler's comments. In most cases the debts have been substantially augmented during the transition. There have been proposals for a general write-off or socialization of debts—a solution that recommends itself because these debts are to a certain extent an artifact of the old order and do not convey much information about the potential profitability of the enterprises. The issue is less clear cut for debts incurred—and still being incurred—after the demise of central planning as a result of the supply and demand shocks associated with transition, the enterprises' inexperience in dealing with a market economy, and the heightened incentive to borrow associated with negative real interest rates. In

Debt socialization implies that the debts are no longer the liability of the enterprise but of the state itself. See Calvo and Frenkel (1991).
addition, the increased autonomy of state enterprises without effective enterprise governance, which gave enterprise insiders (such as workers and managers) scope to appropriate its resources at the creditors' expense, can contribute to a debt buildup.

The case for a sweeping solution to the debt problem, such as a general cancellation of old debts, is based on the desirability of avoiding widespread bankruptcies while avoiding the moral hazard problems associated with banks whose loan portfolios are riddled with bad debt—as well as with enterprises that continue to operate while already insolvent. Although the case for some kind of debt reduction in most countries is persuasive, there are also some disadvantages, as noted in the paper by Fries and Lane. Canceling the debts may itself pose moral hazard problems, either by creating the expectation of a further cancellation, or simply by transferring resources to enterprise insiders who can then appropriate them. Existing debts, provided that they are not too large to service, may play a valuable disciplining role, forcing enterprises to turn over some of their cash flow. This may be a particularly important consideration in economies that are in the early stages of transition, where there may be severe fiscal constraints owing to the loss of tax revenue from state enterprises, the time required to introduce new forms of taxation, and the absence of financial markets that would permit nonmonetary financing of a deficit. These considerations argue for a selective, case-by-case solution to the debt problem.

Important alternative ways of implementing a case-by-case solution exist, however. One form—a centralized debt workout agency—is discussed in the paper by Fries and Lane. A centralized agency like the German Treuhandanstalt could concentrate expertise in dealing with problem loans and make decisions in each case on whether to restructure the debts or liquidate the indebted enterprise. Such an outside body could perhaps cut through the informal networks carried over from the old system that are widely viewed as perpetuating the status quo—making the problem more transparent by reducing banks' incentives to roll over bad loans to avoid acknowledging them. Such a body could also take into account some of the wider social implications of its decisions.

However, as Georg Winckler points out, it is important not to view a debt workout agency as a "deus ex machina." A centralized agency also faces important constraints, several of which are mentioned in the Fries and Lane paper. In particular, it would face the same limitations on human resources, the same political pressures to keep permanently loss-making enterprises afloat, and the same budgetary constraints as would the individual creditors. There are also moral
hazard problems associated with taking the bad debts off the banks' books, as argued in the paper by Stefan Kawalec, Slavomir Sikora, and Piotr Rymaszewski, who suggest that removing the problem loans from the banks' books may make things too easy for them and may inhibit their learning. If banks are to start to behave truly like banks, they have to start developing collection capabilities, and this might be accelerated by having them deal with the problem loans themselves. Such was largely the motivation for the Polish approach to dealing with bad debts, which, as detailed by Kawalec, Sikora, and Rymaszewski, involves the banks heavily in the workout process. Banks are to establish workout departments, and are given a range of options for dealing with the bad debts, including debt restructuring or write-downs, debt-equity swaps, liquidation, or sale of the loan on the open market. The choice between the two solutions depends mainly on a judgment of which type of institution—a centralized agency or the individual bank—is more likely to be able to resist the political and insider pressure against needed restructurings and, where appropriate, liquidations, and which is more likely to be able to assemble the needed expertise to assess the prospects of companies that on paper are insolvent. This judgment would no doubt depend on the political, legal, and institutional environment of the country in which it is implemented.

One form of existing debt that has attracted particular attention is the explosion of interenterprise arrears, notably in Russia in 1992. These arrears were to a certain extent a voluntary phenomenon, disintermediation associated with a tightening of banking sector credit, as argued both in the paper by Barry Ickes and Randi Ryterman and in comments by Jacek Rostowski. Ickes and Ryterman note the particular prevalence of interenterprise arrears within groups of companies that are well aware of one another's activities. One may interpret this, as the authors do, as reflecting the efficient use of information about the creditworthiness of companies with which a firm has direct dealings; alternatively, it may be viewed as mutual assistance within the insider networks carried over from the old regime—with a government bailout at the end of the road. In particular, even if interenterprise arrears had a negative nominal expected return, enterprises producing inputs for which their customers could not pay may have believed it to be more advantageous to ship the

3 The latter solution appears to entail a "market for lemons" problem, since the banks would presumably sell the loans that, based on their own information, they believe are worth no more than the price offered—which in turn must be low enough to reflect buyers' low valuation of the loans that the banks are prepared to offer for sale.
goods anyway and hope to collect later through a clearing of arrears rather than facing the disruption associated with stopping production. The existence of large stocks of interenterprise credit may complicate the establishment of financial discipline, as pointed out by Rostowski, to the extent that companies may claim (possibly with some justification) that they are unable to pay owing to arrears in their payments receivable from other companies. It may also make it more difficult to resolve the bad loan problem, possibly requiring a multilateral approach that goes beyond the workout of bank loans.

Along with resolving the bad loan problem, it is important to maintain financial discipline during the transition. Here, Ickes and Ryterman discuss a controversial proposal made by Ronald McKinnon. Sorting enterprises into two categories, the first are given decision-making autonomy but are required to self-finance, and the second are kept under tight central control and kept afloat with credit. Ickes and Ryterman argue that the cash flow constraint that this would impose on the liberalized enterprises would be unduly severe, particularly given the uncertainties about the timing of receipts that result from the insufficiently developed payment systems in these countries. In the same vein, Fries and Lane emphasize the need for providing financing for the restructuring of enterprises, which typically requires investments that would yield returns in the future. If restructuring is to be guided by market incentives, it would be desirable to provide financing for privately owned firms, if this is compatible with a prudent assessment of risk by lending institutions. Fries and Lane accordingly suggest various expedients for easing the credit constraints—such as equipment leasing and bank financing for the purchase of shares in privatized firms. Such arrangements would facilitate the transfer of ownership and control into private hands, despite the limited wealth of the population, and would help finance the needed restructuring.

**Sound and Efficient Payment Systems**

A payment system is the arrangement through which "good funds"—the items generally acceptable as final settlement for transactions—are delivered to sellers of goods, services, or assets. Almost universally, these acceptable items are limited to currency, deposits at the central bank, or deposits of other banks. The scarcity of these media, when combined with an inappropriately designed payment mechanism, can slow the tempo of transactions. On the other hand, a payment system can encourage a larger flow of pay-
ments by allowing participants to use credit to settle their transactions, thereby imposing excessive credit risk on the system.

The design of a payment system always involves some compromise between the goal of maximum speed and volume in settling payment orders and that of controlling the usual moral hazard problems by limiting the credit provided through the payment mechanism. This tension is inevitable and is resolved in industrial countries in different ways: some insist on a tight limitation of credit risk on the payment system whereas others provide large amounts of credit to generate maximum flows. The choice of the best combination on the payments volume-credit risk frontier has depended on the demands made by the financial system of the individual economies, but most industrial countries are now moving toward limiting credit risk on their payment systems.

The two papers presented in the session on the payment system by Summers and by Folkerts-Landau, Garber, and Lane both describe in detail the principles and technical factors surrounding the proper operation of a payment system. These considerations include the distinction between clearing and settlement and the nature of finality of payments; the trade-off between gross settlement and net settlement; the operations of a clearinghouse; the relationship between the nature of the payment system and the institutions in the money markets; the need for clarification of the legal status of payment media; and the nature of the communication and transportation system for bank advices and documents. The discussions of these issues in both papers can best be described as a characterization of the parameters that establish the position of a country's payment system on the payments volume-credit risk frontier.

Both papers further apply the principles of sound operation of a payment system to an analysis of the institutions of the economies in transition. Specifically, Summers considers the problems of the Russian payment system, while Folkerts-Landau, Garber, and Lane concentrate on similar issues in the East European context, notably the Polish case. In both Russia and Eastern Europe, the payment system problems are almost identical, except that Russia has the added problem of clearing and settling cross-border payments with the other countries of the ruble zone.

The countries in transition to market economies have inherited payment systems with the drawback both of permitting excessive credit to participants and hindering the flow of transactions. In the monobank systems that predominated under the communist regimes, the making of payments to suppliers took on primarily a financial accounting role and was not a means of disciplining the actions of
the participants in the payment system. Credit in the form of float or explicit loans was freely granted by the monobanks to enterprise payors that were short of funds, and all payments were guaranteed. In this environment, because speed of settlement was not an issue, the infrastructure of clearing and settlement of payments remained primitive. Payment orders and checks can still take weeks to settle, so credit must inevitably be granted to payees to cover imbalances, which can create either credit or debit float. But because payment is not certain, lack of sufficiently fast settlement may constrain transactions, forcing many of them onto a purely cash basis.

As the payment systems of the economies in transition are generally inefficient, some reform proposals would permit a greater volume and speed of payments without compromising the soundness of the system. For example, Summers suggests creating availability schedules for funds depending on typical clearing patterns across cities to avoid large fluctuations in float. Both papers recommend that a banking firm should have a single, consolidated account at the central bank rather than individual accounts for each branch. Banking firms would then be much less likely to run payment imbalances at the central bank, and accounting could be decentralized from the books of the central bank to those of the banking firm. Similarly, both papers recommend technical improvements in the communications and transportation systems used by the banks to process payment orders; and Summers recommends changes in the legal system to define clearly the rights and responsibilities of users of checks and to deter counterfeiting.

Other policy proposals encounter the trade-off, alluded to earlier, between the speed and volume of payments and the credit risk to which the system is exposed. Advice on these issues depends on the nature of the financial system that is desired and the authorities' taste for risk. For example, for large-value interbank payments, the authorities might opt for a gross settlement system—in which each payment order is accompanied by the final settlement medium such as deposits at the central bank. Under gross settlement, no credit is provided directly through the operation of the payment system. Since banks must have a positive deposit in the central bank before the system will process a payment order, banks will have a relatively large demand for reserves. Such a system will restrict payment volumes, especially if there are active financial markets generating wholesale payment flows. Alternatively, the authorities might opt for a net settlement system—in which only the net of all the day's payments and receipts must be settled at the end of the day. Such a system permits a larger volume of payment orders to be processed
with fewer deposits at the central bank. Nevertheless, this gain is provided by increasing the credit risk on the system and absorbing the risk of a systemic crisis if one of the participants in the clearing defaults.

In line with developments in industrial country payment systems aimed at eliminating systemic risk, Summers recommends the choice of a gross settlement system for the economies in transition. Folkerts-Landau, Garber, and Lane point out the trade-off inherent in the choice between gross and net settlement and indicate that the choice will depend on the kind of financial system that the authorities ultimately want to develop. Nevertheless, they too warn of the moral hazard that arises if credit is provided on the payment mechanism. This caution is especially applicable in economies in which the solvency of the financial institutions participating in the payment system is chronically in doubt.

Creating a Sound Financial Structure

The next important question is how to structure a sound financial system that could provide firms with the necessary financing while playing a key role in corporate governance. This issue would remain even if all the pre-existing bad debt problems were solved. Some unresolved questions in this area include how much transitional economies should rely on bank versus nonbank financing; how banking can be made safer; whether universal banking is a sensible choice for transitional economies; and whether bank privatization is part of the solution, and if so, when and how should it be accomplished.

McKinnon’s view, noted above, is that bank lending should not be relied on as a source of finance during the transition process, as the riskiness of the environment, the absence of skilled bank supervision (and bankers), and moral hazard problems probably mean that lending will be unprofitable and misguided. Adherents to this school of thought also argue that because of the scale of the privatization effort that will be a key part of the transition process, stimulating the development of capital markets is the first order of business, and that banking is unimportant or irrelevant to transition. They have added fuel to this debate by proposing a technologically sophisticated—and expensive—payment network to facilitate nonbank finance.

In contrast, most of the participants in the session on creating a sound financial structure emphasized the importance of banks in the transition process, though they disagreed about appropriate policies in the financial sector. As Blommestein and Spencer argue, banks are
important because they provide short-term working capital and
occupy a key position in the payment process. Without the provision
of "good funds" from the central bank, as well as commercial banks' readiness to provide "lender-of-first-resort" funds to other financial institutions, trade in commodities and financial assets will probably be far less than it would be otherwise. Banks also are important because of their role as gatherers of information in an environment that is anything but transparent. Whereas in advanced economies the profusion of information has recently begun to allow the "securitization" of financing formerly conducted through nontradable bank loans, the underdevelopment of information markets—the absence of reliable accounts and of accountants and auditors—as well as the difficulty in enforcing contractual agreements makes securitization a futuristic solution to finance in emerging market economies.

A principal point of contention for those concerned with putting the banking sector on a sound footing is restructuring of banks. Many observers, including Blommestein and Spencer, recognize that banks are important and that when they are allowed to operate with negative net worth the likelihood of suboptimal decisions emerges. However, a marked divergence of views from that point emerges. Blommestein and Spencer make the case that banks must be restructured early in the transition process, whereas others argue that restructuring should be delayed until the conditions are in place to ensure that they will not be rapidly decapitalized again.4

One way to sort through these issues is to focus on the condition of the banking sector on the eve of reform and what is being asked of it in transitional economies. As is commonly recognized, financial intermediaries mobilize savings, make payments and facilitate transactions, select firms to finance, monitor firm managers and provide some form of corporate governance, and facilitate risk management. Before the onset of the transition process, so-called banks in the economies in transition did not perform these functions but rather passively fulfilled the goals and directives of the planning ministry.5

---

4See Levine and Scott (1993) and Caprio and Levine (1994) for a discussion of when to restructure banks. In many regions, including Eastern Europe, bank restructuring without more fundamental reforms—including improving supervision and regulation, raising capital requirements, and training bankers—has proved to be short-lived; some restructured banks and banking systems have lost their new capital in short order. This argument is not against recapitalization, but it does suggest that it should occur later in the reform process.

5The degree of passivity undoubtedly varied, but the only country in the second half of the 1980s to which this generalization does some injustice is Hungary, where the transition process commenced earlier in the decade.
Often one large savings bank charged with mobilizing resources transferred the funds to the central bank, which then allocated them among the few specialized lending banks. Lending banks in turn did little to screen firms or to monitor their loans, as the risk was born by the government, which regularly reimbursed the banks for any losses. Other financial products and services designed to reduce or trade risk were largely absent, except for some insurance of commercial risks for trade-related industries.

Given this base, what are banks in transitional economies being asked to do? Economies in transition by definition have small but growing private sectors and large and shrinking state-owned enterprise (SOE) sectors. However, in most cases the private economy does not appear instantaneously but rather emerges over time, while the SOEs show no signs of disappearing. An important job for the financial system, in addition to mobilizing resources and facilitating payments, is to allocate resources between these two disparate parts of the economy. A quick and complete restructuring of the banking system might then not be needed and might not stand any chance of success, unless and until the nonfinancial sector was being immediately restructured and privatized as well. If the private sector is to remain small for a while, the urgency for bank restructuring and privatization appears to diminish. Moreover, in most economies new, small firms do not get bank finance but rather resort to self-finance until, having reached a more moderate size, they have achieved a track record and have accumulated some collateral.

One could envisage that the needs of the newly emerging private sector would be served by new (private) banks, including foreign and joint venture efforts, with perhaps some parts of the former state banking sector being split off and privatized also. The state-owned banking sector that remains—not a banking sector as is known in market economies, but more of a "hospital" or restructuring arm of the government budget—would be charged with carrying out the government's wishes for the SOE sector. An important job would then be to ensure that the share of credit going to the SOE sector declined over time.

The notion that the entire state-owned banking system cannot be "fixed" overnight is also featured in the paper by Millard Long and Samuel Talley. This paper recommends that a special license, of International Standard Bank (ISB), should be awarded to a handful of banks meeting rigorous criteria. This controversial proposal, designed for Russia, is intended to apply to a situation in which there has been essentially free entry. Its goal is to create a number of "good" banks that would ultimately become the core of the future
Russian banking system. The plan would operate by offering banks a combination of carrots—allowing them to advertise their special license, borrowing at a lower rate from the discount window, perhaps lower deposit insurance premiums and easier approval of branch applications—and sticks—higher initial capital, meeting the Basle capital adequacy guidelines, an annual audit by qualified firms, adequate loan loss reserves, and tight limits on single borrower exposures.

One critique of the plan argues that it is a good idea that does not go far enough. Although an 8 percent risk-adjusted capital adequacy ratio might be appropriate for well-diversified and macro-economically stable countries of the Organization for Economic Cooperation and Development (OECD), recent debate suggests that regulators believe that it may not be high enough even in the OECD context. The same ratio may be dangerously low when applied to economies in transition. Although it is difficult to find historical examples similar to the transition process, it is useful to recall that in the nineteenth century, capital/asset ratios in U.S. and German banks were often 25 percent and higher. One might well ask whether it can be convincingly argued that today's emerging market economies are any less risky than the U.S. and German economies during their industrialization effort. This critique would then imply that if the ISB approach is adopted, extremely high capital ratios must be imposed.

A second critique, offered by Garber, Lindgren, and Schiffman, asserts that the plan is impractical and perhaps even misguided. Regarding practicality, they maintain that because the supply of qualified supervisors is insufficient, a significant lag in verifying ISBs' compliance with the requirements would occur, and they doubt that even sincere bankers could comply with the commitments that they would be required to make. On a more fundamental level, these critics are concerned that the formation of ISBs could prompt a run on the non-ISBs, and that it is detrimental to give preferential treatment to one class of institution. Raising the capital requirements substantially above those required by the Basle committee would answer some of these critiques—it would certainly reduce the number of institutions needing supervision. Still, it is not possible to dismiss

---

6Another suggestion that the 8 percent standard is too low even in OECD countries is the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) in the United States, which accords wide powers to banks satisfying a 10 percent risk-adjusted capital ratio, with limitations on powers increasing as capital falls from this level.

7See Tilly (1966) (for Germany) and Hammond (1957) (for the United States).
these concerns, as they are legitimate issues, particularly about the phasing in of such a system.

A policymaker might be inclined to ask what are the alternatives in a truly "wild west" banking environment. One response might be to let the "market" work, that is, to allow depositors to lose their funds and thus serve as monitors of the banking system. This laissez-faire view presumes that depositors can monitor banks, which are inherently nontransparent institutions, and that it is practical to deny at least partial deposit insurance to economies in transition.Officials might well reason that passing on large losses to depositors would evoke calls to halt or reverse the reform process. If neither of these presumptions holds, some method for selectively limiting entry and increasing the franchise value of bank licenses will help to improve the incentives facing bankers and induce them to invest in making their institution safe and sound.

Another important issue for policymakers is the activities that banks should be allowed to undertake. Many of the economies in transition—in particular those in Eastern Europe and Central Asia—are attracted by the German model of universal banking and have granted universal banking powers to the banks. David Scott advocates delaying the emergence of such institutions until both banking and supervisory skills are sufficiently developed. Nonbanks—institutions not funded by deposits—could provide the skills to help with the restructuring process and with equity finance. In effect, as noted by George Kaufman, this model is the U.S. banking system of the 1940s to the 1970s, and he basically argues that it is appropriate for economies in transition if one deals satisfactorily with the deposit insurance issue. Some might argue that whereas the bankers in economies in transition may not be the best finance professionals imaginable, they are the only ones around. Given the paucity of financial expertise in these economies, the banks might be the best hope for exerting rational corporate governance and should accordingly be allowed to take an equity position in enterprises. Scott does not contradict this, but nonetheless suggests that banks should be prohibited from underwriting, trading, or distributing corporate debt or equity securities.

---

8 See Caprio and Summers (1994) for a discussion.
9 Given the underdeveloped banking and supervisory skills, Kaufman's views on structuring capital requirements and deposit insurance to allow supervisors sufficient time to intervene before bank capital is exhausted are quite consistent with the remarks above on the desirability of a high capital ratio.
Although disagreement on the limits that should be placed on banks' powers abounds, perhaps the most convincing compromise was offered by Winckler, who noted that nations' position in this debate depends on how they view the trade-offs between transparency, economies of scale and scope, and concentration in finance. Outsiders may have little to contribute to the debate other than to note that the trade-offs exist and how to cope with the choices.

Less controversial is the argument that a market-oriented financial system needs private banks at the heart of the banking system and that therefore at some point some parts of the state-owned banking system will need to be sold off. Unfortunately, few countries have much experience with bank privatization, but Guillermo Barnes was able succinctly to recount some of the very practical lessons of greatest interest to the authorities in formerly centrally planned economies. In addition to presenting the mechanics of the process, he argued that authorities should start with small banks, as officials learn much in the process and will thereby make fewer costly mistakes. They can also establish a track record for honesty and transparency that will have positive externalities for other parts of their program. He also asserted the need to build up the supervisory system so that it will be ready for a large private banking sector. On economic grounds, the authorities in economies in transition do not have to privatize their banks within the short time span (13 months) observed in Mexico, but there is no substitute for getting started. As argued above, this may initially involve selling off only small parts of the state-owned banking system, relying on new entrants to fill out the remainder of the private banking group.

The Provision of Credit

Many of the papers in this volume have illustrated, in various applications, the role of financial discipline in guiding the allocation of resources during and after the transition to a market economy. But some observers have sounded a cautionary note, in the context of the output declines that occurred in Central and East European countries in the early 1990s. Guillermo Calvo and Fabrizio Coricelli argue that if financial discipline is imposed too early, severe macroeconomic consequences may result. In their interpretation, an important ingredient of the output decline was that central banks indicated that they would no longer be willing to provide unlimited and automatic credit. This change in the role of the central bank led to a vacuum in credit markets that could not immediately be filled, given the absence of the
information, trust, rules, and institutions needed to enable a private credit market to function. No private mechanism was immediately available to offset the decline in the stock of credit associated with the price jumps that followed price liberalization at the onset of the reform programs.

Calvo and Coricelli focus on enterprises' response to a reduction in liquidity, which they associate with credit. They assume that enterprises face a liquidity-in-advance constraint, requiring liquidity in proportion to output. Prices are assumed to increase exogenously, while the nominal quantity of liquidity or credit is limited, leading to an output collapse. The liquidity crunch may to some extent be offset through lower wages, with the firm in effect borrowing from its workers. However, assuming that there is some floor to wages, or that for some other reason workers are unwilling to lend enough to the firm, output will nonetheless decline. An expansion of interenterprise arrears would partly offset the effects of the credit contraction, but the imperfection of private enforcement mechanisms may limit the scope for interenterprise arrears without a government guarantee.

The analysis of Calvo and Coricelli focuses mainly on the macroeconomic aspects of credit provision as an explanation of output decline. In addition to the aggregate decline in real credit the authors discuss, the distribution of credit among firms may also have played a role in the output decline. More generally, their argument points to the difficulty of establishing working credit markets in economies in transition and its importance for economic activity. However, the quantity of output is not the only criterion by which economic policy should be judged, and even if one accepts the view that a credit crunch was responsible for the output decline, this has to be weighed against the view, discussed earlier, that financial discipline may influence significantly the composition and efficiency of production. Moreover, as the authors acknowledge, macroeconomic solutions to a liquidity crunch may not work: for instance, increasing the nominal quantity of credit may undermine the disinflation effort and thus further decrease the real quantity of credit. This leaves the policymaker with a dilemma: how to impose financial discipline without drying up the credit that is needed to finance economic activity.

In China, not only does finance appear initially to have played a lagging role, but it also has presented quite the opposite case from the

---

10 They assume that firms do not have access to international capital markets but that workers do.

11 See the comment by Rudiger Dornbusch.
Calvo-Coricelli credit crunch. The Chinese reform strategy, implicitly or explicitly, has featured a reliance on nonstate firms as the engines of growth. As with virtually all young firms in any economy, these nonstate enterprises have relied heavily on self-finance, with workers and township and village residents taking equity in their firms. A high initial savings rate helped fuel this process. The Chinese financial sector benefited substantially from relatively little financial repression: except for a brief inflation spike, real interest rates on deposits have remained positive or zero since 1980. This absence of significant repression probably contributed to the high savings rate, which has underwritten the self-finance boomlet. In addition, China has benefited from a large amount of foreign direct investment, which has financed investment especially along the southeast coast. Shahid Yusuf also argues that recently some signs indicate that bank financing is on the rise, as might be expected as firms mature and become more established.

China has not yet experienced the credit crunch discussed by Calvo-Coricelli; both the high savings rate and capital controls make it easier for many demands for investment to be satisfied. However, as investment demand rises in the nonstate sector, and as it becomes necessary to rein in monetary growth to check inflationary pressures, conflict between the state and nonstate sectors may well arise, rendering some type of crunch more likely. However, the main problem that the central bank will face will be reining in the expansion when a significant amount of liquidity exists in the system. This can become an important issue in transitional economies where many of the tools of monetary policy are lacking. A resort to direct controls, while effective in the short run, risks being so blunt as to reduce growth sharply, though, to be sure, a continuation of accelerating inflation would damage the real economy even more.

Summary

Many of the issues raised above underline what has been learned in developing countries, namely, that financial reform is a process, not an event. It is a process because it takes time to build skills and institutions and to change incentives. And financial systems do not function in a vacuum, but rather depend heavily on, and in large part reflect, the nonfinancial sector. Since the latter's transformation takes more time than was thought at the start of the transition process, it is not surprising that financial reform is slow going.
Nonetheless, efficient financial intermediation will make an important contribution to improving the allocation of resources which, after all, is the goal of the transition process. It is to be hoped that the lessons and discussion set out by this conference and others like it will accelerate the transition process and help to build sound financial systems in transitional economies.

References


PART I

Old and New Debts
Building sound financial systems is fundamental to developing viable market economies where central planning once prevailed. In a market economy, it is the financial system that channels savings among alternative uses, either through competing intermediaries or in markets, guiding the composition of economic activity and its rate of expansion. Accompanying this provision of financing are various forms of control over the use of capital—the voting rights of shareholders, restrictive covenants in lending agreements, and shifts in control associated with bankruptcy. Within the discipline thereby imposed, a market economy permits a large degree of decentralization. The transformation from a centrally planned to a market economy thus entails, in large measure, a shift from bureaucratic administration to financial control.

Financial restructuring in emerging market economies is not only limited to building a sound financial system that effectively controls the use of capital. The economic and financial structure of state-owned enterprises (SOEs), including their privatization, is also of crucial importance. For the transformation to a market economy to enhance efficiency, it must change the organization and deployment of productive resources—including paring down large SOEs from their often vast scale and scope and liquidating chronic loss-making enterprises. In the void created by the breakdown of bureaucratic administration, strengthening financial control can be an important means of achieving this economic restructuring. Enforcing existing

---

1This is a revised version of the paper that was prepared for the conference. The authors thank Georg Winckler, the discussant, and other conference participants for helpful comments on the earlier draft. The views expressed are those of the authors, and do not necessarily represent those of the International Monetary Fund.
debts can be used to force inefficient SOEs to shed physical assets, while providing new financing to support enterprise sell-offs and leasing can facilitate the transfer of productive assets into the nascent private sector. However, the financial structure of new private firms, which shapes the incentives faced by their owners, creditors, and managers, should reflect their preferences rather than those of a central authority.

Because of both the discipline imposed by a sound financial system in a market economy and the need to provide finance for economic restructuring, an overhaul of the financial systems in emerging market economies is of pressing importance. This overhaul includes not only an upgrading of the physical and human capital of banks and other financial institutions, but also a fundamental shift from finance as the passive record-keeping mechanism under central planning to finance as the primary instrument of control over the use of capital.

The legacy of bad loans from the era of central planning and the early period of transition to a market economy, however, severely hampers the overhaul of both state banks and SOEs in some emerging market economies. These doubtful loans were made mostly to SOEs by state banks; in some cases, they constitute substantial proportions of both state bank assets and enterprise liabilities. State banks are also hindered by the sectoral and geographical concentration of their loans that resulted from their typical origins as either regional offices of monobanks or as specialized financing agencies for particular industries.2

This paper examines alternative approaches to building sound financial structures in some emerging market economies. The foremost task is to resolve the bad loan problem and to recapitalize insolvent state banks. By restoring an incentive for banks to price accurately the risks of new lending, the resolution of bad loans would be an important first step in strengthening financial control. However, this endeavor is only part of the task at hand; the remainder is to provide financing that facilitates the economic restructuring of SOEs. A comprehensive strategy may combine discipline derived from enforcing existing loans to SOEs with adequate funding for new forms of ownership, including financing for enterprise sell-offs and leasing.

2The “pocket banks” in the former Soviet Union, which were established largely to channel funds—usually central bank credit—to particular state enterprises are an extreme example.
Origins of the Bad Loan Problem

Although loan defaults did not occur under central planning, the origins of the current bad loan problem in some emerging market economies can be traced to the old system. Under the monobank structure, a single bank performed both commercial and central banking functions. In commercial banking, a monobank typically played a passive role, providing book-entry credit to SOEs for all investment projects approved under the central plan and disbursing cash for payment of wages. An attempt was usually made to maintain a strict separation between cash and credit money: the former was used for wages and household consumption and the latter for interenterprise transactions. Since credit money could not be spent without the planners' approval, and credit could be created automatically with the planners' approval, the lending decisions of the monobank were not guided by the opportunity cost of funds or by the ability to repay. The concept of bad debt was therefore irrelevant. Because the enterprise sector as a whole was typically solvent—being the main source of revenue for the government—the creditworthiness of individual SOEs was not of primary concern to planners.

In many of the centrally planned economies, the initial reform efforts scaled back central planning and granted more autonomy to SOEs. At the same time, more banks were created. In some countries, such as Poland, the monobank's commercial banking functions were devolved onto newly created commercial banks, whereas in others, such as Russia, many new banks were established. However, bank operations adapted slowly to the greater degree of decentralization. Without both the constraints imposed by central planning and effective financial control, SOEs stepped up their borrowing. Sharply negative real interest rates in some countries further stimulated this effort. Moreover, where high real interest rates prevailed, the adverse selection may have impeded the efficient allocation of credit. Since banks had not begun to discriminate between borrowers' creditworthiness, high interest rates may have discouraged borrowing by solvent enterprises whose managers and workers expected to have a stake in the firm, whereas those SOEs whose debt far exceeded their assets may have been undeterred, never expecting to have to service the new lending (see Dooley and Isard, 1992). Restrictive credit policies, compounded by shortcomings in credit and payment systems,

3Also, in some countries, such as Poland, official policy sanctioned interest capitalization.
may also have contributed to the overall deterioration of the enterprise sector in some countries (Calvo and Coricelli, 1992 and 1993).

The large shocks to which SOEs in Central and Eastern Europe were subjected in the early 1990s were another source of the bad loan problem. First, price and trade liberalization worked to undermine the profitability of the enterprise sector: SOEs that had produced goods subject to shortages, purchasing inputs at controlled prices and selling their output under conditions of excess demand, suddenly hit the demand constraint. Many enterprises faced a large contraction in demand and were unable to adapt to altered market conditions (Blanchard and others, 1991; and Borensztein, Demekas, and Ostry, 1993).

Second, the breakdown of trade among the countries of the former Council for Mutual Economic Assistance (CMEA) and among the states of the former Soviet Union exacerbated the plight of the enterprise sector (Rodrick, 1992). This breakdown was intensified by deep distrust among some of these countries and because the previous pattern of trade had been to some extent artificially promoted in the interest of maintaining fraternal relations among the socialist countries (Wolf, 1990). The shocks affecting the enterprises, together with the banking system's failure to discriminate according to creditworthiness, contributed to substantial further accumulations of bad debt after some reform programs had begun.

The pattern of lending in the initial period of reform illustrates three aspects of the lack of financial control. First, many SOEs were confronted with permanent changes in their economic setting—in their input prices and in markets for their outputs—that would not permit them to survive in their present form; nevertheless, these SOEs continued to receive bank credit that enabled them to perpetuate chronic loss-making activities.

Second, reflecting the breakdown of central control of SOEs, some enterprise managers may have used their access to credit to buy industrial peace by granting higher wages (Coricelli and Lane, 1993) or to further their own interests, expecting that the debts would be serviced by someone else. Third, the explo-

---

4 In some cases—notably Poland in 1990—rapid inflation early in the reform programs boosted the profitability of SOEs, as they earned profits on inventories and foreign currency deposits, and as real (product) wages fell owing to the incomes policy. These profits were subsequently reversed, however. See Lane (1991).

5 Hughes and Hare (1991) estimate that between one-fourth and one-third of SOEs in Bulgaria, the former Czechoslovakia, Hungary, and Poland were producing negative value added at world prices.

6 The diversion of credit for personal use was not limited to SOEs, as Poland's 1991 Art B scandal demonstrates (Folkerts-Landau, Garber, and Lane, Chap. 5 of this volume). This scandal is a reminder that in addition to the incentive problems of
sive growth in interenterprise arrears after initiation of reform pro-
grams may also point to the lack of financial control, although some
growth in this form of credit may have reflected normal business
practices (Clifton and Khan, 1993; and Ickes and Ryterman, 1993).

Why did banks not exercise a greater degree of financial control after
the initiation of reforms? First, they had no clear-cut incentive to maxi-
mize profits, since they remained under state ownership. Even where
their profits were shared with employees, uncertainty about how long
this arrangement would last may have given them a very short-term
perspective. Second, those banks that were themselves insolvent had
no incentive to withhold credit from unworthy borrowers. Under these
circumstances, lending to enable insolvent debtors to service their obli-
gations could be rational, since it enabled the troubled banks to report
the loans as performing, and thereby postpone the day of reckoning
(Mitchell, 1993). Third, the quality of information on outstanding debts
was very poor, because few facts were available on which to assess the
long-term viability of SOEs or even the quality of their receivables from
other enterprises. Finally, the strength of insider networks and custom-
ary relationships may have perpetuated lending patterns established in
the era of central planning.

The bad loans in emerging market economies are a serious problem
because they distort the incentives of both creditors and debtors.
Banks whose bad loans are so large that they are insolvent do not
make efficient lending decisions, since at the margin no incentive
exists to price accurately the risks of new loans. Under these circum-
stances, a serious moral hazard problem could arise, as managers of
state-owned banks would see little benefit from prudent lending rela-
tive to a high-risk gamble that could keep them in business. More-
over, as long as banks are saddled with such a large proportion of
nonperforming assets that they have negative net worth, they cannot
be privatized. Bad loans also pose a similar moral hazard problem for
insolvent SOEs, destroying the incentive for maximizing enterprise
profits and significantly impeding their privatization (Levine and
Scott, 1993).

Fiscal Constraints in Emerging Market Economies

To eliminate quickly the moral hazard problem associated with the
debt overhang and to pave the way for privatization, sweeping solu-

---

SOEs, there is the danger of outright fraud, which existing supervisory structures
may be inadequate to prevent.
tions to the bad loan problem have been suggested. These involve either debt cancellation—eliminating claims of state banks on SOEs and of SOEs on one another—or debt socialization—replacing existing bank loans to SOEs with claims on the government’s budget (Calvo and Frenkel, 1991; Begg and Portes, 1993; Calvo and Kumar, 1993; and Levine and Scott, 1993). However, any such solution to the bad debt problem must take into account its impact on the fiscal position of the government overseeing the transition to a market economy. This impact arises largely from the extent to which the government guarantees deposits in state banks, which usually account for the bulk of the private sector’s claims on the public sector.

The government’s ability to raise revenues with which to fund a bailout of depositors is limited, however. In emerging market economies, revenues are largely derived from the enterprise sectors, whose profitability has been squeezed by initial reform efforts (Tanzi, 1991 and 1993). Steps have been taken in some countries to move toward new tax bases—such as personal income tax and value-added taxes—but new forms of taxation often take time to yield much revenue.7 In parts of the former Soviet Union, this problem may be exacerbated by disagreements on the right to tax the enterprises, and on the ambiguity of property rights in general (Shleifer and Vishny, 1994). This suggests that, if a debt write-off or socialization further reduces a government’s ability to derive revenues (including debt service payments) from the enterprise sector, a heavier burden would fall on those forms of taxation that can be most readily collected, including the inflation tax (Lipton and Sachs, 1990).

The fiscal constraint would be less binding if there were well-developed markets for government securities (bills and bonds). Such financing opportunities would permit the government to achieve its desired intertemporal distribution of the tax burden. The appropriate choice of intertemporal tax incidence would then depend on anticipated improvements in tax collection and on expected increases in income over the long haul to minimize the deadweight losses from the taxation. This choice could also take into account intergenerational equity, possibly shifting to future generations some of the costs of the economic transformation from which they will likely benefit in the form of higher incomes. However, in many emerging market economies, the absence of well-developed money and securities mar-

7For instance, Hungary introduced a personal income tax and value-added tax in 1988, whereas Poland and the former Czechoslovakia introduced value-added taxes in 1993. In each case, administrative and other start-up costs were substantial.
kets limits the amount of government debt that can be sold to finance
the cancellation of old loans.

The debt socialization proposal aims to avoid large-scale sales of
government debt into underdeveloped markets by swapping these
obligations for the claims of banks on SOEs. As a first approximation,
debt socialization is equivalent to lending by insolvent banks that
benefit from an official guarantee of their deposits, substituting an
explicit liability of the government for its contingent liability. Two key
differences make debt socialization preferable, however. It is more
transparent, recognizing the transaction as a financing item in the
government’s budget rather than as a contingent liability; and it
paves the way for solving the moral hazard problem associated with
insolvent banks and SOEs.

If the debt socialization approach is followed, however, how much
debt should be socialized and what should a government do with the
claims that it obtains on the SOEs? As a starting point, it is assumed
that the state banks are to be privatized. If this privatization takes
place by selling shares in a liquid equity market, the net fiscal cost of
any debt socialization is limited to the negative net assets of the bank,
because the government recoups the amount of any excessive debt
socialization through increased privatization revenues (Begg and
Portes, 1993). However, if—as seems more realistic—banks are sold in
relatively illiquid equity markets, or if they are given away to the
public through some kind of voucher scheme, the benefits of exces­
sive debt socialization are unlikely to be fully reflected in share prices,
and thus would to some extent accrue to the new owners of the
banks.

With respect to the claims on SOEs that governments would
receive from banks, such debts could be retained at least in part to
impose financial control over the managements of SOEs and to bol­
ster government revenues. Provided that these debt contracts can be
enforced, they could be used to pry productive resources away from
inefficient SOEs. If financing for enterprise restructuring is available,
the existing debts of SOEs could be used to mop up free cash flows
that may be generated by the sale of productive assets (Jensen, 1986).
Also, with respect to profitable SOEs, the existing debts could limit
the discretion of managers over the use of operating profits. In both
cases, the existing debts of SOEs could also provide the government
with a source of revenue. However, the fiscal benefits from enforcing
the existing debts of SOEs must be counterbalanced against the
adverse incentives faced by the managers of insolvent SOEs.

A blanket solution to the bad loan problem in emerging market
economies, such as a generalized debt socialization or write-down, is
unlikely to strike the appropriate balance between quickly restoring solvency to banks and SOEs and limiting the fiscal impact of a bailout. An indiscriminate bailout would not promote the restructuring of SOEs needed to achieve more efficient deployment of productive resources and more competitive market structures. Rather, to resolve the bad loan problem, a case-by-case approach is necessary.

**Resolving the Bad Loan Problem of State Banks**

It is perhaps best to begin with the state banks, since the provision of new, high-quality loans and other services is key to strengthening financial control and to restructuring the enterprise sector in emerging market economies. With respect to the banking overhaul, several important issues must be addressed. First, the responsibility for undertaking the resolution must be assigned. Two alternative approaches are a decentralized route, in which responsibility for resolving the problem rests with the banks themselves, versus a centralized approach carried out through a specialized agency. The second issue is whether the banks should be recapitalized and, if so, how this should be accomplished. Finally, as with any bailout, the moral hazard problem must be combated, which in this case requires the privatization of banks.

**Decentralized Versus Centralized Strategies**

One approach to resolving the bad loan problem is to leave the individual banks that are so burdened to sort out the problem, as in the decentralized strategy recently adopted in Poland to address the bad loans of its nine major commercial banks. In this case, a certain portion of the banks' doubtful loans were segregated in their balance sheets and subjected to special monitoring. This approach has also been used in Argentina, Malaysia, the Republic of Korea, Thailand, and the United Kingdom (during the secondary banking crisis). An alternative approach is to carve out bad loans from the banks' balance sheets and to transfer them to a centralized agency created by the banks or the government to resolve the bad loan problem. Recent examples of this approach are the creation of the Resolution Trust Corporation in the United States, the Cooperative Credit Purchasing

---

8 A variant of this approach has been used in the United States and in some Nordic countries, where separately capitalized entities have been established to dispose of banks' problem loans.
Company in Japan, and the Spanish Guarantee Fund. This approach has also been used in Chile, the Philippines, and Uruguay.

The experience in industrial and developing countries reveals that the choice of a decentralized or centralized strategy for resolving the problem often reflects a number of factors. Foremost among them appears to be the size and scope of the problem (Saunders and Sommariva, 1993). In banking crises that involve a large number of problem banks with a substantial proportion of the banking system’s loans, the doubtful assets are often transferred to a restructuring agency. In the other cases, a more decentralized approach is typically used, in which individual institutions retain responsibility for resolving the bad loan problem. By both official and unofficial accounts, the number of troubled banks and the proportion of doubtful loans in some emerging market economies are very large, calling for the use of a centralized solution.

In addition, a number of unique factors have a bearing on the appropriate choice of a resolution strategy in an emerging market economy, some of which also weigh in favor of the centralized approach (Blommestein and Lange, 1993). First, this approach decouples the banking overhaul from enterprise restructuring and may help to sever the symbiotic relationship between banks and SOEs. Because the restructuring and privatization of large SOEs is likely to be protracted, retaining bad loans to SOEs on the balance sheets of banks may impede the banks’ overhaul. The relatively quick rehabilitation of banks’ balance sheets afforded by the centralized approach would allow the management of these institutions to turn to the business of making new, high-quality loans. Moreover, the substantial reduction in banks’ credit exposure to loss-making SOEs would be an important first step in breaking the spiral of bank lending to support these troubled enterprises. If banks are adequately recapitalized when the bad loans are removed from their books, they would no longer be compelled to roll over old loans to maintain the pretense of solvency. However, regulations to curb new bank lending to SOEs—for example, rules pertaining to large exposures—may be necessary to establish an arm’s-length relationship between banks and SOEs and to encourage the formation of broadly diversified loan portfolios.

In contrast, if the bad loans are retained on the balance sheets of

9This empirical regularity suggests that there may be some economies of scale in undertaking bad loan resolutions, but the precise source of these gains is difficult to pinpoint (for example, administrative cost savings or greater control over the disposition of assets).
banks, their close relationship with SOEs would probably be preserved, as would the banks' concentrated credit exposures. Although in principle banks could be recapitalized sufficiently to enable them to charge off the nonperforming loans, the resolution of the bad loans could require the banks to become closely involved with the managements of SOEs. This involvement would not be limited to isolated business failures, but would be pervasive, given the financial condition of the enterprise sector. The extensive commingling of banking and commercial activities has been resisted throughout much of the history of Anglo-Saxon banking (Corrigan, 1991). The two main concerns have been about conflicts of interest and concentrations of economic power. Delegating enterprise restructuring to banks may thus impede the paring down of large SOEs. However, in other countries, such as Germany, the cartelization of banking and industry has been viewed as an engine of development (Hellwig, 1991).

The second consideration that favors a centralized approach is the pace at which bank privatization could proceed. The cleaning up of banks' balance sheets would enable them to be more precisely valued and reduce the time required for due-diligence investigations before their sale. Moreover, privatization in this manner is likely to be more enduring because it makes a clear break with the past. The government could credibly argue that any losses on loans are in the first instance the responsibility of banks' private owners and managers (Levine and Scott, 1993).

Third, a centralized resolution agency may facilitate the restructuring of SOEs. One impediment to their restructuring is the diffuse control of SOEs with the loss of central government authority after the collapse of communist regimes. Workers, incumbent managers, and local governments now vie for dominant positions in these enterprises (Dinopoulos and Lane, 1992; van Wijnbergen, 1992; and Shleifer and Vishny, 1994). In bargaining with these various stakeholders, an agency backed by the government may have greater authority and leverage than banks. In principle, the agency must devise a resolution strategy that combines enough “carrots and sticks” to prevent these stakeholders from blocking the restructuring of enterprises. One possible incentive is the transfer of shares in privatized enterprises as needed to one or more of these groups (van Wijnbergen, 1992), whereas channeling new bank loans away from chronic loss-making SOEs toward enterprise restructuring is a potential way to discourage obstruction (Perotti, 1992).

The main argument against adopting the centralized approach is that the administrative demands of this solution would be difficult to satisfy in many emerging market economies, where such expertise is
in short supply. This, in fact, was the main reason why the Polish Government opted for a decentralized approach to resolving the bad loan problem of its nine largest banks (Kawalec, 1994). A centralized agency may also become a focal point for rent-seeking activities that could undermine its efforts to restructure enterprises, although individual banks would not be immune to such pressures.

**Bank Recapitalization**

Given an assignment of administrative responsibility for resolving the bad loan problem, the issues arise of whether and, if so, how, the banks should be recapitalized. The case for recapitalizing insolvent banks rests on several considerations. Two of the more important are the building of confidence in the banking system and the preparing for the privatization of state banks. Failure to protect depositors would risk financial instability and jeopardize the attempt to impose market discipline through financial control. At the same time, recapitalization is a necessary first step for the sale of banks to private investors to help combat the moral hazard problem associated with a bailout of depositors (see below). Concern over the fiscal impact of the bailout, however, could lead to the imposition of losses on depositors, especially through high inflation and negative real deposit rates, or to the adoption of inefficient schemes that attempt to hide its true cost.

Many industrial countries experienced periods of financial instability, particularly in the 1930s and in periods surrounding major wars, that involved widespread failures of financial institutions, sharp declines in asset prices, and disruptions to payment systems and credit intermediation. The perception that this instability contributed to significant declines in real activity and employment have led most industrial countries to adopt financial policies aimed at promoting financial stability and at containing the spillover effects from financial crises onto the real economy. These policies include extensive explicit and implicit guarantees of bank deposits.

The official safety net for banks and other financial institutions in industrial countries consists primarily of the central banks’ authority to act as lender of last resort, typically on the basis of collateral, and explicit deposit insurance schemes. The structure of these schemes differs widely, however, in terms of the extent of their coverage, the institutions allowed or obligated to participate, the relative roles of private and public insurance, and the extent to which insurance funds have been used. Nevertheless, in instances of financial instability, authorities typically have come quickly to the rescue of trou-
bled institutions, mobilizing both public and industry resources. For troubled banks, preserving confidence in the system has usually necessitated providing enough liquidity to protect depositors and to give time until the situation could be fully assessed and resolved in an orderly fashion (Corrigan, 1990).

In emerging market economies, the potential for financial instability is substantial. Initial reform efforts have seriously impaired the financial position of many SOEs and, in turn, that of their creditor banks. Moreover, owing to a lack of reliable accounts and financial disclosures, the distribution losses within banking systems are largely unknown to depositors. To maintain financial stability and to lay the foundation for the shift to financial control over the use of capital, many governments overseeing transitions to a market economy have pursued a policy of de facto guaranteeing 100 percent of deposits in major state banks, notwithstanding their loss in value through inflation as in Russia.10

The choice of recapitalization often reflects the trade-off among conflicting objectives, in particular maintaining financial stability versus minimizing fiscal costs.11 In industrial countries, attempts to strike a balance between these goals, however, sometimes have led to efforts aimed at concealing the true cost of recapitalizations, which often raise their ultimate costs. For example, governments can sufficiently restrict competition among banks, allowing them to earn extraordinary profits from wide net interest margins that can be used to rebuild their capital. This approach, while keeping the recapitalization costs off the government’s books, imposes an equivalent burden of distortional taxes on consumers of banking services to fund the recapitalizations. This is not in general an efficient way to distribute the tax burden. In the early stages of the U.S. savings and loan crisis, the deposit insurance agency resorted to the widespread use of loan guarantees to avoid making cash outlays. These guarantees, which weakened the incentive to collect on problem loans, ultimately proved to be very costly.

In emerging market economies, the status quo of allowing banks with negative net assets to continue operating with the benefit of a de facto 100 percent guarantee of deposits has appeal, because in part it conceals the true cost of bank recapitalizations. In such circumstances, the government effectively borrows by having state banks

10 A combination of inflation and wide interest rate margins increased banks’ net worth dramatically in Poland in the early 1990s, although this solution was temporary and probably unintended. See Lane (1991).

11 Another objective is imposition of market discipline (see below).
issue deposits and using the proceeds to fund their negative net assets. The status quo has appeal also because the interest on this borrowing is paid by creating additional bank deposits, rather than by using government revenues. However, allowing banks with negative net assets to continue their operations runs the danger of escalating the bad loan problem, because little incentive exists to collect on old loans or to price accurately the risks of new lending.

Any effort to recapitalize banks in emerging market economies thus must overcome the appeal of the status quo. One way to tip the balance in favor of explicit recapitalization is to craft a plan that to some extent replicates the present situation. Since both the banks and the SOEs fall within the public sector, banks can be recapitalized by the government exchanging its debt for bank claims on the SOEs. This balance sheet operation does not affect the consolidated net worth of the government, taking into account its commitment to depositors. Thus, in effect, this method of recapitalizing banks simply substitutes explicit government borrowing for its implicit borrowing in the form of bank deposits.

Although it is possible to craft recapitalization plans that largely replicate the status quo, any explicit recapitalization of banks would make the costs transparent. This transparency could impose political costs on the government and run afoul of attempts to achieve targets for benchmark levels of the fiscal deficit—which is of particular concern to international financial institutions. Nevertheless, an explicit recapitalization would allow the authorities to establish accountability for keeping these costs at a minimum.

Moral Hazard and Bank Privatization

In most official efforts to recapitalize troubled banks, the government’s aim of preserving financial stability cuts against the need to maintain market discipline for banks, as the losses are not confined to their shareholders and private creditors. Indeed, the fundamental dilemma is that, while official assistance can limit the impact of financial instability on real activity and employment, the expectation that such assistance will be forthcoming may alter the behavior of banks’ managers, shareholders, and unguaranteed creditors in such a way as to make future instability more likely (Lane, 1993).

In industrial countries, the moral hazard problem associated with the official safety net for banks is combated in several ways. First, replacement of the bank’s management is typically a precondition for official assistance to a troubled institution. Second, the shareholders’ claims on the bank are substantially diluted or written off in return for
government assistance. Thus, the management and shareholders of a troubled bank bear the costs of failure to the fullest extent possible. Third, to minimize the likelihood of failure, governments implement comprehensive systems of banking regulation, including capital requirements, limits on concentrated credit exposures, and prudential examination.

The present banking troubles in emerging market economies do not, in the first instance, pose precisely the same moral hazard problem as those in industrial countries, since the government is the principal shareholder in the banks. By virtue of the de facto 100 percent deposit guarantee, the government is essentially a shareholder with unlimited liability and, thus, internalizes fully the costs of the banking troubles. Also, although bank managers in emerging market economies may not have acted entirely in the interests of the government, establishing accountability at the level of bank management is hampered by the short supply of capable managers. Significant redundancies in banking industries are simply not feasible.

The first line of defense against future banking troubles in emerging market economies is thus privatization of the banks and a credible government commitment not to protect the private shareholders. The most effective preventative measure against future troubles is placing private capital truly at risk in the banking system. With private capital at stake, the banks' owners would have an incentive to ensure that risks of new lending are appropriately priced and that risk management procedures are adequate. If future losses are sustained, the private capital would serve as an initial buffer to absorb these costs, before recourse is made to public funds. The government's commitment not to protect bank shareholders in the event of future losses would be made more credible by removing the bad loans to SOEs from the banks' balance sheets before their sale (Levine and Scott, 1993).

**Overhauling State-Owned Enterprises**

The other side of the bad loan problem in emerging market economies is the restructuring or liquidation of SOEs that cannot service their debts. In principle, a bad loan can be restructured to reduce its principal amount or the present value of its interest payments. This approach typically enables the borrower to continue operating as a going concern at the expense of bank profitability over time. Alternatively, the operations of the borrower can be wound up, with the creditor receiving the proceeds from the disposition of assets. The
unpaid loan balances must then be charged off. Moreover, these two
types of resolution are sometimes undertaken simultaneously, in
which case partial asset sales are used to pay off some debts, while
others are restructured in a way that reduces their net present value.

Whereas formal bankruptcy proceedings provide one forum for
resolving bad loans, restructurings and liquidations (or combinations
thereof) can also be achieved, often at lower cost, through bargaining
between creditors and debtors. However, the credible threat of
enforcing the loan agreement (by seizing collateral) or the risk of
bankruptcy often underpins such negotiations (Huberman and Kahn,
1988; Hart and Moore, 1989). The reform of bankruptcy and related
laws would thus facilitate the overhaul of SOEs; however, the passing
of legislation and the building of administrative capacity are time
consuming (Aghion, Hart, and Moore, 1994; Mitchell, 1993). A cen­
tralized resolution agency can also perform some of the functions of
bankruptcy proceedings, as well as allow for the social benefits and
costs associated with enterprise restructuring.

Restructuring Versus Liquidation

Evidence from industrial countries, while limited, confirms the
general preconception that firms filing to restructure their liabilities in
bankruptcy tend to be larger and in better financial condition than
those seeking to liquidate. However, the net assets of both types of
firms are on average significantly negative.\(^{12}\) A study conducted for
the U.S. Department of Justice found that the average ratio of total
assets to liabilities of firms that file for Chapter 11 bankruptcy was
0.71, while that of firms that filed for Chapter 7 bankruptcy was 0.14
(Ames and others, 1983, as reported in White, 1989). The ratio of
assets to secured liabilities of these two types of firms was 1.67 and
1.0, respectively.

One reason that loss-making firms may seek to restructure their
liabilities is the ability gained to generate an adequate stream of
profits with a lighter debt burden (Fries, Miller, and Perraudin, 1993).
Such a restructuring also preserves the firm’s value as a going con­
cern (Jensen, 1989). However, if the firm’s losses are large enough,

\(^{12}\)This result contrasts with the prevalent notion in the economics literature that a
firm with negative net assets should be closed immediately. However, the option to put
the assets of the firm onto its creditors associated with limited liability of shareholders
can at least in part compensate them for the negative net assets of their firm. See Fries,
debt restructuring may not sufficiently improve the outlook for profits, in which case the firms are liquidated. The choice between informal debt restructuring and bankruptcy proceedings appears to be influenced largely by the presence of a dominant creditor. In the United States, private negotiations over debt restructuring are more likely to succeed if banks are the primary creditors and less likely to succeed if there are a number of distinct creditor groups (Gilson, Kose, and Lang, 1990). It is widely believed among practitioners that costs of informal debt restructuring tend to be less than those of bankruptcy. Similarly, in Japan, where informal debt restructurings are not uncommon, a distressed firm with close ties to a main bank tends to perform better than a distressed firm with no such ties (Hoshi, Kashyap, and Scharfstein, 1990). One interpretation of these facts is that a dominant creditor can effectively serve to keep the costs of financial distress to a minimum.

The restructuring or liquidation of SOEs is subject to several constraints, however. First, the absence of well-functioning bankruptcy procedures limits the amount of restructuring or liquidations that could be undertaken through the courts. Bankruptcy laws in emerging market economies are relatively new and untested, with Hungary, Poland, and the former Czechoslovakia enacting such legislation in 1990-91 (Aghion, 1992). Only in Hungary, where the bankruptcy law came into effect at the beginning of 1992, have there been a significant number of bankruptcy petitions. By the end of 1992, the Hungarian courts had registered 5,658 restructuring and 7,062 liquidation applications (9 percent of enterprises with 33 percent of GDP). However, only 27 percent of these cases have been completed owing to limited court capacity.

Even if the legal capacity existed, the substantial social benefits and costs associated with enterprise restructuring may point to the need for a resolution that does not focus narrowly on the interests of creditors. If prevailing structures of large SOEs, with their extensive vertical and horizontal integration, were left intact, productivity gains from a more efficient deployment of productive resources would be forgone and the risks of monopoly abuses would be high (Carlin and Mayer, 1992). In addition, the unemployment consequences of

---

13 The vast majority of the liquidations are thought to involve small firms, but precise data are not available.

14 An important lesson to be learned from the experience with privatization in industrial countries is that pro-competitive restructurings should precede privatization. See Vickers and Yarrow (1988). Moreover, Komai (1990) cautions against pseudo reforms that do not fundamentally alter the organization and conduct of the enterprise sector.
enterprise restructuring are often serious because SOEs provide housing and other social services and prolonged because of the relative immobility of workers (Dooley and Isard, 1992).

Finally, the lack of effective recourse to bankruptcy undermines the ability of banks and SOEs to reach an informal agreement on the resolution of bad loans. The absence of restrictive loan covenants that could give creditors leverage by threatening to seize collateral or to restrict enterprise operations in other ways also undermines the bargaining position of state banks.15

Resolution Agency’s Role in Restructuring

The above considerations—creditors with little leverage to restructure debt outside the courts, nonexistent or poorly functioning bankruptcy procedures, and significant social benefits and costs to restructuring—argue for a resolution approach that does not conform precisely to approaches in industrial countries. The Treuhand, a government agency charged with responsibility for restructuring and privatizing east German SOEs, provides such an example. In effect, a government agency can compensate for shortcomings in the legal framework, including corporate governance, and allow for social benefits and costs (Carlin and Mayer, 1992).

The Treuhand has among its main functions: evaluating the balance sheets of SOEs and writing off their old debts; reorganizing and closing enterprises; and setting employment and investment targets. The Treuhand called upon a team of west German managers to analyze the potential viability and balance sheets of east German SOEs. Its evaluation of viability was based on whether SOEs had marketable products, capable managements, and links with west German firms. To mitigate the initial arbitrary conditions imposed on SOEs by their inherited debts, the liabilities to the state bank of the former east German regime were written down to the point at which their equity was in line with that of comparable west German firms.16 The Treuhand’s power to restructure enterprises stems from a 1991 law that allows it to carve out parts of SOEs for sale. If necessary, the Treuhand can circumvent management opposition to restructuring by dismissal. Finally, although the net worth on the adjusted balance sheets of SOEs serves as a benchmark, the Treuhand adjusts sales

15Uncertainty about ownership claims in emerging market economies has made it difficult to offer property as collateral.
16The Treuhand estimates that about 70 percent of the old debts will be written off.
prices in privatizations according to the investments that the buyers guarantee to undertake and the number of jobs that they preserve.

Although the majority of enterprises will be restructured and privatized, recent estimates indicate that between 20 and 30 percent of east German SOEs will be liquidated. The industries slated for the greatest share of enterprise closures are mining, metal goods, leatherware, synthetics, textiles, electronics, and chemicals—all tradable goods.17 Firms may be closed by liquidation under the auspices of the Treuhand or by a more formal court liquidation. The Treuhand liquidations tend to preserve where possible the value of enterprises as going concerns by carving out those parts that are viable and negotiating their sale to new investors. In formal bankruptcy proceedings, the Treuhand loses the power to dispose of assets, and the narrow interests of creditors tend to prevail. As a result, more jobs are preserved in Treuhand liquidations (33 percent) than in formal bankruptcy liquidations (23 percent).

The Treuhand’s approach of emphasizing the preservation of enterprise employment is not necessarily feasible in other emerging market economies, however. The criteria adopted by the Treuhand have no doubt been appropriate in east Germany, where the social safety net makes unemployment very costly from a fiscal standpoint, whereas the tax base of Germany as a whole is large enough to support an expensive bailout of SOEs. The massive increase in the costs of the Treuhand’s restructuring efforts relative to initial expectations may nevertheless represent one of the drawbacks of a centralized resolution agency. It may face considerable political pressure not to liquidate chronic loss-making enterprises, even when they have little prospect of returning to profitability. However, as pointed out above, individual banks may be subject to much the same pressure under a decentralized approach.

Other aspects of the Treuhand’s approach, while suitable for east Germany, may also be less applicable to other emerging market economies. These include the heavy reliance on expertise, and the introduction of the established legal system, from west Germany. Such an extensive use of "outsiders," let alone the wholesale introduction of laws and law enforcement procedures from outside, would not be possible nor politically acceptable in other countries in transition.

These considerations suggest that, in other emerging market economies, a resolution agency may adopt a more narrowly focused and less costly approach than that of the Treuhand. For example, such a

17In contrast, enterprise restructuring and privatization is proceeding most rapidly in the construction, services, and distribution sectors.
government agency, as the holder of claims on SOEs after a debt socialization, could concentrate on enforcing these debts. This could include selling off viable parts of SOEs as going concerns and using the proceeds to pay off their outstanding debts. Enterprise assets could also be sold piecemeal to leasing companies that would, in turn, lease the structures and capital equipment to private firms. Provided that these asset sales are valued accurately (see below), this approach would effect the writing-down of outstanding enterprise debt to its market value and, at the same time, boost productivity and foster more competitive market structures. The strategy could be tailored to the agency's administrative capacity, provided that tight controls can be imposed on SOEs awaiting restructuring.

Financing for Enterprise Restructuring

While a resolution agency can play an important role in reducing the inefficient scale and scope of large SOEs and in creating more competitive market structures, such restructuring requires financing to acquire productive assets from the SOEs. In principle, the stock of private savings could be used for the purchase of these divested assets; however, their value may well outstrip the amount of private wealth, both domestic and foreign, that could be mobilized in the short run for this purpose (Aghion and Burgess, 1992). This constraint on asset sales could be eased if the government accepted claims on the cash flows generated by the assets (Bolton and Roland, 1992).

To the extent that individual wealth is mobilized to acquire assets from SOEs, asset sales may classify potential buyers by their wealth rather than by their ability to use the assets efficiently (Bolton and Roland, 1992). If ability and wealth are not highly and positively correlated, asset sales to the private sector may not achieve the maximum possible efficiency gains from redeploying enterprise assets. The potential trade-off between the ability and wealth of those that purchase enterprise assets could be eased in several ways. First, restructuring of SOEs prior to their sale would lessen the amount of wealth required to purchase a particular set of enterprise assets. Second, the provision of financing to purchasers of divested assets by banks and private investors could ease the trade-off between wealth

---

18 Burda (1991) examines the extent to which the private sector can absorb displaced workers in the former Czechoslovakia and east Germany.

19 Carlin and Mayer (1992) discuss the Treuhand's role in compensating for the lack of effective governance of enterprises.
and ability. Finally, acceptance by the government of noncash bids (claims on cash flows) for enterprise assets could provide purchasers with an alternative source of financing.

What is the appropriate financial structure to support sell-offs from SOEs? The answer depends in part on the relationship between the new firm’s owners and its managers. In an owner-managed firm, management decisions are taken in the owner’s interest, but at the expense of a potential exposure to firm-specific risks. If ownership extends beyond the firm’s managers to include outside shareholders, risk is better diversified, but the managers must be given a stronger incentive to act in the owners’ interests. Mechanisms that serve to combat this incentive problem include managerial compensation contracts based on (noisy) measures of performance, monitoring by boards of directors, and shifts in control associated with bankruptcy.

The problems of constructing incentive contracts and monitoring are particularly difficult for firms operating under highly uncertain conditions (Tirole, 1992). This consideration is particularly important in emerging market economies, in which demand and cost conditions are often volatile. For example, highly sensitive performance contracts may expose managers to substantial risks beyond their control, while ex post monitoring of whether a firm lost money because of an adverse shift in market conditions or because of poor managerial performance could be difficult. One solution to the incentive versus risk-sharing problem appears to lie with having an inside shareholder group, which may involve a majority stake (Demsetz and Lehn, 1985), to solve the incentive problem, and outside equity investors to spread the risks. Moreover, high leverage in the face of great uncertainty risks frequent bankruptcies that do not necessarily reflect managerial performance.

To achieve the desired financial structure for enterprise sell-offs, external financing in the form of bank loans and outside equity must be available, in addition to the wealth of insiders. To facilitate the provision of debt financing by banks, sell-offs could be offered free of old debts. Private equity investors could then use the unencumbered assets to attract bank loans that could be used to fund part of the acquisitions. If sufficient bank loans cannot be mobilized, the government or resolution agency could retain a debt claim on the sell-off. The appropriate degree of leverage could then be gauged from comparable divestitures for which only banks provided the debt funding.

The provision of outside equity is, even in industrial countries, difficult and costly, especially for new firms. Initial public offerings in a number of industrial countries are on average priced at substantial discounts to their post-offering prices (Smith, 1986; and Jenkinson,
This underpricing of initial public offerings reflects at least in part the limited information that investors and underwriters have about the prospects of firms tapping the equity market for the first time. This problem is likely to be more severe in emerging market economies. One solution is for the government to retain equity stakes in divested companies to achieve some spreading of risks during the initial high-risk period. These holdings could then be sold in tranches to develop a liquid market for the shares and to maximize the revenues from the sale to private investors. Public offerings of equities that are already traded on markets tend to be priced close to prevailing secondary market prices (Smith, 1986).

In addition to sell-offs, shifting economic activity to a smaller scale can be achieved by either bank affiliates or the government leasing productive assets. Leasing is partly an alternative to collateralized borrowing, which has the advantage of economizing on the amount of financing needed by the lessee (Smith and Wakeman, 1985). A lease needs financing for only the interest cost and the amount of the productive asset that is depreciated while in the lessee’s possession. Also, it has desirable incentive effects in that the lessee pays a fixed amount for use of the asset and receives at the margin the benefits from its efficient use. However, leasing has certain adverse effects not associated with outright ownership of an asset: the lessee has less of an incentive to invest in maintenance and improvement of the asset than if the asset were owned. Where it is difficult to specify such responsibilities contractually, there may be a moral hazard problem in which either the lessor or the lessee may refrain from undertaking investments that would be beneficial.

In emerging market economies, short-term leases have the desirable property of tending to lessen the need for information about the value of the asset being leased (Flath, 1980), whereas with outright sales, considerable information would have to be gathered about the value of the asset. In a period of rapid economic transition, when any valuation is highly speculative, this information could be very costly, if not impossible, to produce. With a short-term lease, the lessee only agrees to rent the asset’s services for a limited period; therefore, less is at stake in the initial valuation. In addition, the assets can be sold outright later when there is a sounder basis on which to value them.

20The retention of equity claims on the SOEs would also provide the government with a source of revenue. See Blanchard and others (1991) and Borensztein and Kumar (1991).
Conclusion

The legacy of bad loans from the passive role of finance under central planning and the early transition period, as well as the excessive scale and scope of large SOEs, substantially hinder the successful transition from central planning to a market-based economy. The overhang of debt creates several potential pitfalls for this transition: (1) insolvencies pose moral hazard problems for both creditors and debtors; (2) moral hazard problems increase the fiscal cost of the bailout that will eventually be needed; and (3) insolvencies prevent the privatization of banks and SOEs. Large SOEs tend to be inefficient in their size and scope, and failure to restructure them before privatization risks creating concentrated market structures.

This paper examines how such problems can be tackled within the fiscal constraints faced by reform governments. Priority is given to restoring the solvency of banks because of the important roles that they can play in strengthening financial control and in providing finance for enterprise restructuring. One way to restore soundness to the banking system is to undertake a case-by-case exchange of bad loans for government debt. A centralized agency could then undertake to resolve the bad loans with the SOEs and could use these loans as leverage to pry productive assets away from SOEs. For this effort to succeed, however, financing must be available to acquire enterprise assets. This effort could include insiders providing new bank loans and purchasing equity. Sources of outside equity would probably be more difficult to tap initially, and governments could retain equity stakes in enterprise sell-offs to diversify risks somewhat. Leasing could also play an important role by transferring productive enterprise assets to new private firms.

References


Folkerts-Landau, David, Peter Garber, and Timothy D. Lane, "Payment System Reform in Formerly Centrally Planned Economies," Chap. 5 in this volume.
Tirole, Jean, "Privatization in Eastern Europe: Incentives and the Economics
Comment
Georg Winckler

The paper by Steven Fries and Timothy Lane, "Financial and Enterprise Restructuring in Emerging Market Economies," is a comprehensive and well-written survey of the financial problems currently plaguing the previously centrally planned economies, especially in Central and Eastern Europe. The paper is well based on microeconomic and macroeconomic reasoning. Many of its issues will be discussed in more detail in specialized sessions over the next two days.

Owing to the paper's excellent survey and because I agree with most of its contents it is hard for me to comment critically on the paper. I would like to add only two general points and comment on one specific issue. The first general point seeks to cast further light on the cause of the current financial difficulties in Eastern Europe, whereas the second one deals with the role of universal banks in solving these problems, a role somewhat neglected in the paper by Fries and Lane.

The cause of the current problems is related to what Steven Fries and Timothy Lane call the legacy of the past. When analyzing this legacy, one has to go back to the period when the economies of Central and Eastern Europe were still centrally planned. Then, ideally, money was important only as a medium of exchange, not as an asset. The classic monobank of the old system financed enterprises so that they could pay for the variable costs of production such as labor. These funds were paid back by the receipts from sales. For households, financial or real assets, except for durable consumer goods, were of no importance. They received the wages and spent them on consumption. Investment was financed through special channels.

However, as is well known, huge imbalances occurred in this system, especially in the 1980s. To put it simply, on the one hand unsold inventories were accumulated, and on the other, a monetary overhang came into existence. When the reform programs were launched and a two-tier banking system was set up, these imbalances were taken over. The newly established commercial banks started to act as financial intermediaries, receiving the monetary overhang as deposits and inheriting the loans that had been made to state-owned enterprises. In an economic sense, unsold inventories served as collateral for the loans. As the issue of the creditworthiness of debtors did not play a role at the beginning of the reform process, the unsoundness of the financial system could be dealt with later.
There are several ways of making the system sound again. The first option is to inflate away or to (partially) confiscate the deposits. The use of inflation as a means of getting rid of financial burdens can be witnessed in many countries, but this approach is, of course, inconsistent with the effort to achieve macrostability. The confiscation of deposits was introduced, in Germany and Austria, for example, after 1945, along with currency reforms. Under the second option, deposits are preserved. Then the cancellation of bad debts has to be accompanied by a recapitalization of banks (in one or in several steps), or banks are allowed to dump these debts onto some other agency, such as a state agency. The latter approach is used in the Czech Republic.

One has to be very careful about the allocation and distribution effects that these different options entail. It is especially important to assess whether firms or households, producers or consumers, carry the burden of financial reform. In Germany and Austria after 1945, firms and banks could get rid of their liabilities, and it was the household sector that lost most of its assets. Obviously, it was of interest that firms quickly started investing and producing again; the economic loss for the households was not politically challenging.

In Central and Eastern Europe, things developed differently. For various reasons, the reforms tried to link deposits with positive real rates of interest and to make them convertible. The deposits were only partially reduced by higher prices. This decision put much pressure on the financial sector, using the liability side of the balance sheets of banks as a disciplinary device for the whole system. Disciplining the banks should ultimately discipline the indebted firms. The reform scheme of rewarding the households and disciplining the firms was, in addition, timely from a political point of view.

The basic problem with this approach, however, is that there is a conflict between granting interest-bearing, convertible deposits to households and the priority of a government keeping technically insolvent enterprises afloat. In addition, one can argue that the existence of these deposits is only an economic illusion, as they have to be taxed away or will be lost when firms go bankrupt or have their debts canceled.

My second point refers to the role that universal banks may play within the financial sector when the economies of Central and Eastern Europe are being reformed. Some recent literature stresses that...
the issue of whether banks or capital markets should provide finance to industry deserves systematic analysis, since institutional differences between financial systems may explain some of the variation between U.S., British, German, and Japanese growth patterns.

On a theoretical level (see Hellwig, 1991), what seems to be important is the interpretation of financial intermediation by a universal bank as delegated monitoring within a contractual relationship, thereby allowing firms to lengthen their investment horizon. For example, as reported by Hellwig, page 47, von Thadden demonstrates in a two-period model with "good" and "bad" types of firms, in which the long-term strategy has relatively low expected returns in the first period but relatively high returns in the second, that without monitoring, banks may see low first-period returns as proof of a "bad" firm, and hence discontinue financing: "Anticipation of such behavior induces firms to opt for the short-term investment strategy even though the long-term strategy may eventually be more profitable." Monitoring a firm, with close links between banks and industry, may avert this problem by shortening the investment horizon, since banks receive additional information about what is "good" and what is "bad."

Of course, the German or Japanese kind of linkage between universal banks and industry does not create only benefits. Close links between bank and industry managers may, for example, create insider systems, in which the method of self-monitoring no longer works. In addition, a cartelization of banks and industry may occur, thus making the bank-oriented economies less efficient than the market-driven ones.

Why may universal banks be of interest for Central and Eastern Europe? Besides the economic arguments developed in Hellwig (1991), my basic point is a sociological one. In most of the countries of this region (but also in many others of continental Europe), there is either no or only a short tradition of allocating resources via markets. Instead, there were hierarchical, bureaucratic societies. As a result, the marketization of the economy cannot be achieved just by promulgating new laws but has to be seen within the context of democratizing the society and the effective building up of appropriate institutions. Hence, until these institutions are established, insider systems, representing close bank-industry linkages, may serve as excellent monitors of the economy, which may be more effective than any monitoring by anonymous, barely organized markets. If monopoly rents exist as a result of a cartelization of the economy, these rents can

be used as shock absorbers. Of course, insider systems need outside disciplining, but this can be achieved by opening up the economy and by making it sufficiently export oriented. This export orientation seems to have helped the German and Japanese economies to become highly productive after the war.

This consideration of the role of universal banks leads me to a final comment on a specific issue raised by Steven Fries and Timothy Lane. They suggest that a centralized workout agency would have greater authority and leverage than a diverse group of banks in restructuring state enterprises. In their paper, this centralized agency somehow appears as a "deus ex machina," solving all relevant problems. In contrast, as I have tried to outline above, I see a more positive role for banks in this business of restructuring enterprises.
Dealing with Bad Debts:  
The Case of Poland

Stefan Kawalec, Slawomir Sikora, Piotr Rymaszewski

We would like to present to you the principles of the bank restructuring program designed at Poland’s Ministry of Finance. We will concentrate on the distinctive characteristics of the program as well as its controversial features, which were the subject of the most heated disputes.

Before presenting the program itself, however, we would like to say a few words about the environment in which it is being implemented. The bank restructuring program was introduced as part of the broadly instituted reform of the Polish financial sector. This reform started in early 1989 with the creation of a two-tier banking system and has gained momentum since the stabilization program of 1990 brought to the Polish economy macroeconomic stability and microeconomic liberalization, and when interest rates became positive in real terms.

The main elements of the financial sector reform are (1) introducing the proper regulatory framework; (2) improving the quality of supervision of the banking sector; (3) introducing, through corporatization and privatization, internal incentives for the more efficient performance of banks; (4) strengthening competition by opening the market to newcomers, including foreign banks; and (5) developing a modern clearing and settlement system. All of these elements are being vigorously implemented and significant progress has been achieved over the past four years.

Banks Affected by the Program

The Polish restructuring program concentrates on the nine state-owned commercial banks that were separated from the National
Bank of Poland in 1989 as part of the creation of a two-tier banking system. In 1991, the Government decided that these banks should be privatized. As the first step, the banks were transformed into joint-stock companies, with the State Treasury remaining the sole shareholder. The members of the banks' supervisory boards were selected by the Ministry of Finance, primarily from professionals in the fields of finance, law, and other relevant subjects. Thus, even before their privatization, the banks were forced to operate as quasi-private institutions. To improve their internal operations, they entered into long-term technical assistance contracts with a number of reputable foreign banks. These so-called twinning arrangements were set up with the assistance of the World Bank and the International Finance Corporation.

In April 1993, the first of these nine banks, WBK of Poznan, was privatized with a capital injection from the European Bank for Reconstruction and Development and huge oversubscription by domestic and foreign investors. Another one, Silesian Bank of Katowice, will be privatized later this year, without the prior injection of new capital being necessary. The remaining seven banks will be privatized between the beginning of 1994 and the end of 1996, having been recapitalized in 1993.

The Polish Government came to the conclusion that it could not privatize a bank unless it was confident that the bank was financially stable and its organizational structure met the necessary standards. It desperately wanted to avoid having to bail out any recently privatized institutions. Although we are very enthusiastic about bank privatization, we want to privatize each bank only once.

In 1991, the Ministry of Finance commissioned a financial portfolio analysis of the nine commercial banks. The audits, carried out by international auditing firms, revealed that although the financial situation of individual banks differed, the percentage of substandard loans was on average very high. This was true not only for loans inherited from the centralized economy, but also for loans in the private sector credit portfolio. The creation of sufficient loan-loss provisions (100 percent for "loss" category and 50 percent for the "doubtful" category) in most of the banks would result in a decrease in the banks' capital adequacy ratio (Cook's ratio) to much below the 8 percent level required by Polish prudential regulations.

**Choice of Restructuring Method**

The Polish Government turned to the World Bank, the International Finance Corporation, and the European Bank for Reconstruc-
tion and Development with an invitation to engage in the preparation of the bank restructuring program and the financial support needed for the recapitalization of the banks. The international financial institutions had agreed with the concept of recapitalization, but had initially had many doubts about the methodology of restructuring proposed by the Ministry of Finance.

During the discussions, most experts representing the international financial institutions proposed the standard approach to the bank restructuring process, which can be described as a centralized, one-time solution that aims at improving banks’ assets by transferring their bad loans to a specially created loan-recovery institution and replacing them with interest-bearing treasury bonds. We in the Government rejected such an approach.

First of all, we did not believe that a centralized, government-sponsored agency could vigorously and effectively recover bad debts. We did not believe in our ability to create, within a reasonable time, a strong institution in terms of the high quality of its staff and internal organization. Nor did we believe in the possibility of devising an adequate incentive system that would ensure the institution’s active approach toward the indebted enterprises. We also did not believe that such an institution could resist political pressure.

Second, we felt that the centralized solution did not address the causes of the problem, which we believed lay primarily in the banks’ lack of experience and expertise in handling credit activities in a market environment. By painlessly removing the burden of bad debt from the banks, the centralized approach creates a danger that a bad loan portfolio will re-emerge in the near future. It does not contribute to the growth of the banks’ experience and expertise in conducting credit operations and resolving bad debt problems.

We proposed an alternative solution, which may be called a decentralized approach. It consists of recapitalizing the banks to such a level that they will be able to create adequate provisions for the bad loans and of introducing mechanisms that will encourage and even force the banks to undertake specific actions with respect to the bad debtors. The amount of ex ante recapitalization is not dependent on the amount of bad loans to be recovered by the individual banks. This creates incentives for the bank to recover as much of the bad debt as possible.

Many experts have cautioned about the danger resulting from the fact that our proposal does not terminate the financial ties between the banks and the bad debtors. The danger consists of the possibility of the debtors financing the old debt with the new loans, and that the bank preoccupied with the old debt may be unable to introduce new
standards for its credit operations. We therefore attempted to introduce safeguards against these dangers.

The Polish Program

**Preliminary Steps**

In early 1992 the nine banks were required by the Ministry of Finance, acting as their owner, to (1) separate the loans classified by the auditors as being in the “doubtful” and “loss” categories, and (2) set up new internal organizational units (workout departments) to manage bad loan portfolios. The managers of these departments were selected through managerial contests between candidates who had not previously been involved with the credit activities of the bank whose department they would head. All of them are members of their bank’s management board. The workout departments were made responsible for developing the bad debt restructuring strategy and are obliged either to sell or to restructure—according to predetermined procedures—the loans classified as substandard.

At the same time the Ministry began work on the new Law on Financial Restructuring of Enterprises and Banks, which would serve as an administrative tool for facilitating the restructuring process. This law, which became effective in March 1993, established a framework for the restructuring program and introduced instruments permitting its effective implementation.

**Recapitalization**

The program requires the banks to create recapitalization provisions at 100 percent for “loss” category loans and 50 percent for “doubtful” category loans. The recapitalization amount was calculated ex ante on the basis of the credit portfolio analysis as of December 1991, and was set at a level sufficient to ensure that on creating the necessary provisions the banks will reach a Cook’s capital adequacy ratio of 12 percent. Because the banks have no liquidity problem, the recapitalization will be performed by means of the treasury bonds transferred to the banks in the fiscal year ended December 31, 1993.

**Duties and Limitations on Banks Subject to Recapitalization**

The Law on Financial Restructuring of Enterprises and Banks imposes on banks subject to recapitalization certain duties and limita-
tions on the loans separated from the total loan portfolio according to the audit for December 1991. These loans constitute the basis for calculating the amount of recapitalization.

The banks are obliged to complete the restructuring of these loans by end-March 1994—the deadline set by the Minister of Finance as authorized by the law. Until this deadline, the banks are not allowed to extend new credit to enterprises whose debt has been placed in the bad debt portfolio unless such credit is given in connection with a conciliation agreement. Such an agreement may be obtained as the result of a conciliation proceeding (similar to the U.S. Chapter 11 bankruptcy procedure) introduced into Polish law by the Law on Financial Restructuring of Enterprises and Banks. This provides that creditors of an enterprise unable to pay its debts can work with the management to draw up a financial and business restructuring plan. Under the conciliation agreement to implement such a plan, the creditors may reschedule claims, write off part of them, or convert them into equity in the firm. The conciliation agreement, upon signature by the debtor and creditors holding at least 50 percent of the claims of the debtor, becomes binding on all creditors.

The law requires the banks to ensure that before the March 1994 deadline one of the following events takes place:

- the loan is recovered in its entirety;
- a conciliation agreement with the bad debtor has been reached (or alternatively an arrangement agreement according to the old Polish Law on Arrangement Proceedings has been reached);
  - the debtor’s bankruptcy has been declared by the court;
  - liquidation of the debtor has been initiated either under the privatization law or under the Law on State Enterprises; or
- the debtor has regained its creditworthiness, which has been proved by at least a three-month record of servicing the debt.

If the bank fails to restructure the debt through any of the above-mentioned alternatives or decides that none of these methods is feasible, the Law on Restructuring obliges it to sell the loan in the open market before the March 1994 deadline. Public debt sale is a procedure also introduced by the Law on Restructuring that in effect suspends the bank secrecy regulations with respect to the loans in the bad loan portfolio that are offered for sale.

Incentive Mechanism

The structure of the program described shows a two-tier incentive mechanism. The first tier is provided through the creation of a quasi-private, profit-driven institution. Transformation of the banks into
joint-stock companies with market-oriented supervisory boards, the creation of workout departments operating as separate profit centers, and the prospect of privatization are all expected to stimulate appropriate responses by the banks to the restructuring program.

The second tier of the incentive mechanism is provided by the administrative supervision of the banks' compliance with the Law on Financial Restructuring of Enterprises and Banks.

**Conciliation and Debt Sale**

It might be useful to concentrate on one of the choices that the banks taking part in the restructuring program will have to make—the choice between a conciliation proceeding and the public sale of debt made in the context of timely obligatory debt restructuring.

Banks are, by nature, very cautious when it comes to conciliation involving significant debt reduction. Thus, without special incentives the banks would be unwilling to negotiate debt reduction even with those debtors that could generate a reasonable level of operational profit after the reduction.

Because the Law on Financial Restructuring of Enterprises and Banks fixes a specific timetable for the restructuring or sale of the debt, the banks in many cases will have to choose between a substantial reduction in the debt's value under a conciliation agreement and a significant discount under a compulsory public debt sale. In a public sale of a nonperforming debt, the banks can be expected to deal with two potential groups of debt purchasers. The first group consists of firms with financial obligations to the bank debtors. They may be interested in purchasing the debt to set off the claims. According to the Polish Civil Code, the mutual claims may be automatically set off against each other, without the need for either side's consent. The second group of purchasers are investors buying the debt to demand the conversion of the debt purchased for the equity of the indebted enterprise (through a new mechanism introduced by the Law on Financial Restructuring of Enterprises and Banks).

Nevertheless, when a bank offers nonperforming debt for sale, it should expect a significant discount, forcing it seriously to consider sound restructuring proposals from the debtors. The bank may conclude, for example, that a 30 percent reduction under a conciliation agreement is a better alternative than a sale at a 60 percent discount. The bank may also decide that a cash sale of a bad debt at a 60 percent discount of face value is more reasonable than accepting a 30 percent reduction under a financially dubious restructuring plan. Thus, we
hope that this mechanism will encourage the banks to enter into conciliation agreements offering good prospects for the recovery of the debtor. At the same time, the mechanism will discourage the banks from entering into economically unfeasible arrangements.

Subsidiary Government Intervention

The program, as described above, requires the banks to cease any financial cooperation with the debtor if the bank is not persuaded that such cooperation is based on sound commercial grounds. Strict implementation of the program will result in the termination of financial cooperation with a number of enterprises that are regarded by the Government as sensitive and important from the socioeconomic perspective. The goal of subsidiary government intervention is to address the situations in which sudden and unstructured liquidation of such enterprises would cause severe negative macroeconomic and social consequences of a scale that would be intolerable to the Government.

The intervention mechanism introduced will permit the Government to support the restructuring or cushion the liquidation of enterprises that are regarded by the Government as important from the sociopolitical perspective and that have been unable to reach a conciliation agreement with their creditors. Access to the mechanism is strictly limited.

To qualify for government help, an enterprise must prepare a sound restructuring proposal that envisages profound organizational and financial restructuring, or alternatively, it must prepare a liquidation plan. If the debtor submits a restructuring proposal, it must apply for corporatization; the creditors must have agreed to conduct conciliation or arrangement proceedings; and the qualifications of the incumbent management will be reassessed and appropriate actions taken.

The intervention mechanism itself will consist of financing and monitoring the restructuring or liquidation of the qualifying enterprises. The financing of this mechanism is provided for in a line item in the budget and will be supported in its entirety by the enterprise and financial sector adjustment loan that was approved by the World Bank Executive Board in April 1993 for the purpose of supporting the Government's enterprise and bank restructuring program.

We view the subsidiary government intervention as an indispensable element of the financial restructuring program. Its main goal is to isolate the banks and enterprises participating in the restructuring
program from political pressure, thus facilitating the establishment of sound commercial practices in the economy.

Budgetary Cost and Sources of Financing

In addition to the expenses of subsidiary government intervention, the Government will bear the cost of recapitalizing the banks. Even though the Government realizes that the cost of ex ante recapitalization may theoretically be greater than the cost of ex post capitalization, it is convinced that the incentives the proposed mechanism creates will result in improving the banks' financial situation and achieving a better price for the banks when they are privatized.

The total recapitalization amount for the seven banks covered by the program will reach 11 trillion zlotys (approximately $630 million). Since the banks possess sufficient liquidity, the Government will capitalize them with 15-year redeemable treasury bonds. These will be denominated in Polish currency, indexed to a basket of foreign currencies, and will bear an interest rate close to the market level. Until the privatization of the banks, the bonds will be serviced and redeemed by use of budgetary resources. After the privatization, both the interest payments on the bonds as well as their redemption will be financed through the Polish Bank Privatization Fund, which presently amounts to over $600 million. This fund is financed through grants and loans originally extended by foreign governments to support the stabilization of the Polish zloty.

Conclusion

Under the Polish program described, in contrast with the centralized approach that we mentioned, the "cleaning" of banks' assets is not accomplished overnight, but is performed in a limited time frame by the banks themselves. In addition, it is the banks that undertake the active restructuring and that adjust their organizational structure so that they will be able to deal with the problems of bad debt in the future. In the process, the banks' personnel will acquire invaluable experience in debt recovery. They will learn how better to assess credit risk—an experience that they will find of use in future credit operations. The painful experience of losses also acts as a positive incentive for more cautious and calculated activities in the future. For all of these reasons, we believe that the method chosen by the Polish Government is superior to the centralized approach, which in our view fails to affect the banks at their operational level.
By combining enterprise restructuring with bank rehabilitation, we hope to speed up privatization of both industrial companies and banks, and ensure that this is a "once-and-for-all" operation leading to the elimination of bad borrowers and the provision of new credit to the more efficient users.
Financial Underdevelopment and Macroeconomic Stabilization in Russia

Barry W. Ickes and Randi Ryterman

Macroeconomic stabilization has proved to be one of the most problematic aspects of the transition in Russia. This fact is troubling because macroeconomic stabilization is merely a precondition to the more important aspects of economic reform: creating a market economy. The introduction of the institutions of a market economy are critical for any improvement in Russian economic performance. A destabilized economy, however, inhibits the development of these institutions. That stabilization has proved to be more complex than optimists envisioned is due to many factors. In this paper, we focus on one key factor: financial underdevelopment.

Financial markets play a critical role in market economies—coordinating the behavior of savers and investors and fostering an efficient payment system. Thus, one may view them as important institutions for the market economy, once it develops. In the context of the Russian transition, however, the role of the financial sector is also critical. Unfortunately, the underdeveloped state of the financial sector in Russia has become a key roadblock in the transition to markets.

Financial underdevelopment has hindered market reform in Russia in two important ways. First, macroeconomic stabilization has been hindered because of the Government’s inability to impose a regime of hard budget constraints. This failure, we argue, can be directly related to financial underdevelopment. Second, market reform has been hindered by a lack of restructuring. With ineffective capital markets, it is hard for enterprises to raise funds for restructuring. These

1The views expressed should not be attributed to the World Bank, its Board of Directors, its management, or any of its member countries.
problems are exacerbated when policymakers attempt to implement a stabilization program in a financially underdeveloped environment. This program induces agents, especially enterprise directors, to adapt their behavior in unexpected and often undesirable ways. And these adaptations are most often inimical to market reform.

If financial underdevelopment has such serious consequences, why has it been such a low priority? One reason, no doubt, is that given the relative irrelevance of financial institutions under central planning, the importance of the financial system in the transition has caught many policymakers and observers off guard. More important, however, is the view that financial development is inimical to stabilization. We explore this argument below.

The purpose of this paper is to examine the link between financial underdevelopment and market reform in Russia. We find that the absence of efficient systems of payment and financial intermediation have had important real effects on the level of production and, consequently, on the amount of taxes collected. In addition, the absence of these systems has led to the development of an informal financial market—the interenterprise credit market—which has undermined the credibility of macroeconomic policy. Hence, we argue that the failure of the Russian Government to stabilize the economy is, in large part, due to its level of financial underdevelopment.

**Stabilization and Financial Underdevelopment**

Financial development in Russia has been arrested by the complications presented by the need to stabilize the economy. Financial discipline is critical to economic reform for incentive reasons; as long as enterprises face soft budget constraints, they have little incentive to restructure. The need to impose financial discipline on enterprises is also important for budgetary reasons. Until privatization can be completed, financial losses of enterprises result in public sector deficits. In the period between the onset of the transition and the transfer of ownership, there are good reasons to expect that this fiscal motive will be important. The demise of planning leads to a decline in coordination among enterprises. This decline in coordination reduces output and, hence, tax collection because enterprises in the former Soviet Union and Eastern Europe contribute the bulk of tax revenue. Consequently, there is a direct fiscal motive for imposing financial discipline on enterprises.
Ronald McKinnon has argued that financial development must be postponed in order to gain macroeconomic stability. In McKinnon's view, early financial liberalization reduces central financial control. Therefore, in the early stages of the transition it is better for the financial opportunities facing enterprises to be limited. McKinnon (1991, p. 139) argues that an optimal sequencing of liberalization would involve two stages:

Stage 1: Liberalized enterprises are confined to self-finance and to borrowing from the nonbank capital market.

Then, after a lapse of some years, when price stabilization has been achieved:

Stage 2: Commercial banks begin limited and fully collateralized short-term lending to liberalized enterprises according to the "Real Bills Doctrine."

McKinnon's reasoning is based on the fact that, in the early stages of the transition, state-owned enterprises lack the financial discipline to make prudent economic decisions. Premature financial liberalization affords these enterprises the opportunity to borrow from nascent financial institutions that possess neither the incentives nor the information needed to provide loans on a commercial basis. Enterprises will use these loans to raise wages, which, in turn, will fuel inflation. Hence, in the early stages of the transition, the financial opportunities facing enterprises should be limited.

McKinnon's argument is intimately tied to considerations of macroeconomic balance. McKinnon argues for financial development to lag other reforms because of the need to impose financial discipline on enterprises. Postponing financial development may impose microeconomic costs, since enterprises must operate under self-finance, but these costs must be borne to achieve macroeconomic stability.

This argument reflects what seems to be conventional wisdom, that there is a trade-off between the macroeconomic benefits of an underdeveloped financial system in terms of monetary control and the microeconomic costs of an inadequate financial system in a modern economic framework.

---

2McKinnon is nonetheless a well-known advocate of the role of financial development for economic growth.

3"Such reliance on self-finance is the simplest technique for imposing financial restraint on liberalized enterprises. Bankruptcy would be virtually automatic if their internal cash flows became negative for any significant length of time" (McKinnon, 1991, p. 139). McKinnon is clearly correct that self-finance is the most transparent rule for implementing a hard budget constraint. There are two problems, however. First, it is not clear that the inability to self-finance is the optimal liquidation rule. Second, as we explain below, it is not clear whether a government can credibly commit to such a rule under the conditions of transition.
The key point, however, is that this trade-off is illusory. One reason is that, with underdeveloped financial markets, implementing tight monetary policies is exceedingly difficult. The central bank does have greater control over the stock of money if financial markets are underdeveloped. But using this control is complex in economies in transition because restructuring and stabilization cannot in fact be separated. As we demonstrate below, financial underdevelopment weakens the credibility of a stabilizing government.

The second reason why financial underdevelopment does not contribute to stabilization is that the attempt to impose financial discipline in such an environment leads to the development of informal financial markets. These informal markets, which are impossible to regulate, increase the opportunities for tax evasion, as well as preserving structures inimical to economic reform.

Sources of Financial Underdevelopment

The primary cause of financial underdevelopment in Russia and in the former socialist economies in Eastern Europe and the former Soviet Union is the passive role of the financial system in a centrally planned economy. Although financial flows are present in command economies, they serve primarily as a record-keeping device that can be used to monitor enterprise transactions (Grossman, 1963). Nevertheless, these financial flows do create patterns of surplus and deficit in enterprise bank accounts that must be financed. Under central planning, this financing is nearly automatic and is provided by the state bank using funds from the state budget.

Because the financial system is passive in a command economy, financial flows between enterprises have little effect on resource allocation. In effect, the guarantee of the state to provide funds to finance deficits in enterprise accounts guarantees the solvency of all enterprises without regard to their creditworthiness. Consequently, the size of the surpluses and deficits have little economic meaning other than the presence of product prices that do not equate supply with official demand.

With the demise of planning and the autonomy of enterprises, financial flows must be transformed from passive to active flows. The state banking system must be transformed from a collection device to

4 This problem does not plague most countries that have underdeveloped financial systems because they usually have underdeveloped industrial systems as well. What makes Russia, and by extension other previously centrally planned economies, interesting is that the development of the latter proceeded so far ahead of the former.
an intermediary that coordinates the actions of savers and investors, allocating credit based on commercial criteria. In Russia, the former state bank, Gosbank, did smooth out the irregularity of payments and receipts—essentially providing trade credit to enterprises—but in an environment in which both payment and receipt were a response to the economic plan. Now, the newly privatized branches of Gosbank and other new private banks must create the correct system of incentives to ensure that the nascent financial sector is able to provide the basic services that are fundamental to market transactions. We describe below these basic services—settlement of accounts and financial intermediation—and their implications for enterprise behavior.

**Settlements**

A functioning payment system is so fundamental to a market economy that its role is usually taken for granted. Yet, with enterprise autonomy, it is crucial that enterprises be able to make and settle payments rapidly.\(^5\) Without the means to make payments in a rapid and certain fashion, enterprises must routinely extend credit to their trading partners, relying on their history of trade with one another as "collateral" for the loan.\(^6\) This reliance on historical relationships as a basis for obtaining credit has two important consequences.

First, it creates a powerful disincentive for enterprises to adjust. Entry into new markets requires new sources of supply and, hence, new suppliers. However, without a history of trade, these new suppliers are reluctant to sell goods without some guarantee of payment, such as payment in advance. However, if the official payment system is poorly functioning, the ability of the enterprise to pay in advance is sharply curtailed.

Second, reliance on historical relationships increases the importance of enterprise directors in traversing the complex terrain of the underdeveloped financial system. Most historical relationships are based on personal friendships between enterprise directors rather than institutional relationships between enterprises. Consequently, workers in enterprises view the individual occupying the position of director as key to the survival of the enterprise. This feature of financial underdevelopment provides many enterprise directors with a

---

\(^5\) The nature of the payment system and its role in generating interenterprise arrears is analyzed in Ickes and Ryterman (1992).

\(^6\) Enterprise directors frequently emphasize the role of "historical relationships" in discussing the financial system in Russia in 1992.
pervasive incentive to undermine the development of financial and other institutions that rely on arm's-length transactions, at least to the extent that it jeopardizes his or her employment.7

The system of payments inherited from the Soviet period was a paper-oriented system, designed to monitor the behavior of enterprises. Since financial flows under planning are a means of assessing the fidelity of an enterprise to the plan, rather than an initiator of economic activity as in a market economy, the speed at which payments flow through the system is of little importance. Consequently, the payment system that was in place at the onset of the Gaidar stabilization program in January 1992 was highly centralized and used the poorly functioning postal system to transmit payments.

This centralization forced the incredibly large mass of payments to flow through a single institution, the Central Bank of Russia, thereby delaying settlement. The Central Bank maintained a network of approximately 1,400 cash settlement centers, through which payments were made (Summers, 1992). Every branch of every bank maintained an account at its local center. Payments flowed from the various cash settlement centers and through the Central Bank itself by paper, through the public mail, creating two effects. First, the system utilized reserves inefficiently because a bank spread its accounts over various centers. Second, because payments were processed physically, the time lag was further lengthened.

The time delay in settlement exacerbated the liquidity problems of the banking sector owing to the nature of the accounting system used by the Central Bank of Russia. The account of the payor is debited when payment is made, but the account of the payee is not credited until the payment is received. In the interim, the funds are, in effect, frozen, creating what is called "payment system float" (Summers, 1992). The longer it takes for payments to be made, the larger is the float. This credit float shows up on the balance sheet of the Central Bank of Russia, but if it is not offset by the Central Bank, it results in a decline in the liquidity of the banking system. Thus, the technical delays associated with processing transactions further aggravate the problem of inadequate reserves, which, in turn, exacerbates the problems of the payment system.

The delays in settlement between banks and the difficulties that enterprises faced in obtaining working capital combined to bring the payment system to a crawl. Enterprises were often forced to wait for

---

7 Enterprises are very active in creating banks. However, as we explain in the final section, the dominant purpose of these banks is not to conduct arm's-length financial transactions, but to provide their founders with low-interest sources of credit.
receipts to be credited at the bank before they could make payments. The lag between delivery of goods and receipt of payment became larger. Hence, a mismatch existed between the timing of flows of goods between enterprises in production and the corresponding flows of payments between enterprises.

**Intermediation**

In a market economy, an important role for the financial sector is intermediation. The savings of households are deposited in banks and other financial institutions. These institutions then lend these funds to qualified enterprises for working capital and investment. At present, financial institutions in Russia do not play this role. Financial institutions are not intermediaries between households and enterprises, but rather between the public sector, via the Central Bank, and enterprises. Credit in Russia is provided to commercial banks by the Central Bank, which is then lent to enterprises.

This problem is a legacy of the prior regime. Under central planning, the Government generated investment funds by taxing profitable enterprises, then reallocated these profits across enterprises based on criteria related to economic development. The savings of individuals could be deposited in the former state savings bank, Sberbank, but these deposits did not play an important role in the provision of financial capital to enterprises.

At present, interbank markets in Russia are developing, but funds allocated through this process are still less important than funds provided by the Central Bank. Low real interest rates on deposits make the incentive for individuals to deposit their savings in commercial banks low. Under these circumstances, commodities and deposits in foreign financial institutions become more attractive stores of wealth.

The integral role of the Central Bank of Russia in the provision of credit has important implications for the allocation of credit in the economy. Currently, the Central Bank is pursuing a policy of targeting specific enterprises as recipients of low-interest loans. Commercial banks compete for these loans, using personal connections to attract the attention of the Central Bank. This feature provides commercial banks that are former branches of Gosbank with a distinct advantage, since many Central Bank staff are also former employees of Gosbank.

Another important aspect of financial intermediation is the allocation of credit to the most qualified borrowers. To perform this function effectively, commercial banks, first, must be able to assess the creditworthiness of prospective borrowers and, second, must have
the correct incentives to provide the most creditworthy of the prospective borrowers with loans.

Underdevelopment of the financial system makes adequate performance of these two aspects of credit allocation difficult. To assess the creditworthiness of enterprises accurately, bank officers must evaluate the credit history and net worth of enterprises. However, the relatively short period of transition diminishes the importance of an enterprise's credit history in this evaluation. Furthermore, without well-functioning capital markets, accurate information on the value of an enterprise's assets is not available. Consequently, bank officers are forced to base their assessment largely on the liquidity of the enterprise. However, with underdeveloped financial markets, this information is even more scant. Imperfections in the formal sector cause informal credit markets to arise, as we explain below. These markets are difficult to monitor. Hence, they complicate any analysis of liquidity.

Without adequate information to assess the creditworthiness of prospective borrowers, bank officers must rely on collateral to secure their loans. However, for many enterprises, their title to their assets is still ambiguous. Consequently, bank officers often resort to personal relationships as a basis for allocating credit. Many bank officers previously worked in Gosbank and, consequently, have a long history of relations with enterprises that were their clients in the prior regime. Again, the importance of trust in the allocation of credit has important effects on the behavior of enterprises. In particular, it makes continuity in top management critical to their survival.

Given the difficulties in assessing the solvency of enterprises one may suppose that the optimal policy is, following McKinnon, to impose self-finance, or a cash flow constraint on enterprises. This constraint would force enterprises to cover their costs out of their current revenues and retained earnings. The problem is that the replacement of soft budget constraints with cash flow constraints is an exceedingly harsh regime change, even in an economy where payments can easily be made. In an economy where payments take several weeks, or even months, to clear, moving to a cash flow constraint would be disastrous. But it is not just the lag in payments that renders the cash flow constraint impossible to implement. Given the economy's distance from equilibrium at the onset of the transition, imposing such a constraint could imply shutting down a large portion of the economy.  

8The implications of this problem on the credibility of announced changes in the monetary regime are discussed below.
Self-finance has more deleterious consequences for economies in transition than for market economies. In the transition, enterprises are unlikely to respond to the imposition of financial discipline by restraining their demand for labor and goods. Enterprises in the transition are survival oriented. We explain this behavior below.

**Survival-Oriented Enterprises**

During the early phases of the transition to a market economy, survival is the primary motivation of enterprise management. In any system, enterprises are concerned with survival, but, during the transition, the extreme uncertainty that they face induces peculiar forms of behavior.

The primary distinguishing characteristic of the survival-oriented enterprise is that it operates in an environment in flux. The enterprise in a planned economy and the firm in a market economy each operate in a relatively stable environment. By a stable environment, we refer to the status of the other "players" in the economy and to the rules that govern the survival of organizations. In a planned economy, the enterprise takes the survival of other enterprises as given, since enterprises are not permitted to fail. In a market economy, entry and exit occur, but the number of enterprises that enter or exit an industry in any period is small compared with the size of the industry as a whole. Thus, in both cases, the industrial structure can be taken as given for short-term decision making by the organization.

In the transition economy, on the other hand, the industrial structure is in a state of flux. The rules that govern the survival of the organization are no longer evident. The transition from a system with no exit to a system with exit entails a period of uncertainty as directors of survival-oriented enterprises learn how bankruptcy criteria will be implemented. Moreover, impending privatization may alter the picture as well, as the director may find himself no longer in control of the enterprise. But these uncertainties are compounded by the fact that they apply to all enterprises in the economy. It is this potentially simultaneous restructuring that makes decision making at the enterprise level so complex.

One of the most important implications of survival orientation is that it causes enterprises to resist restructuring. Enterprises are very

---

9 For a discussion of the survival-oriented enterprise, and its implications for the transition, see Ickes and Ryterman (1993b).

10 Especially if measured in terms of value added or employment.
dependent on their present network of suppliers and customers. Presently, they are very uncertain about their ability to find new suppliers and customers. By identifying strategies that enable them to resist restructuring, enterprises and their trading partners can ensure their survival. In addition, the struggle for control rights makes directors reluctant to shed workers for fear that this will hurt their chances to stay in control of the enterprise. The problem for enterprise directors is first to stay in control; only after this has been achieved can their focus be reoriented toward the longer run.

When enterprises are survival oriented, they respond to attempts to impose financial discipline differently from how we would expect a firm in a market economy to respond. In Russia, the first attempt to impose financial discipline led to an explosion of interenterprise lending. The arrears crisis is an excellent example of how enterprise adaptation to stringency may lead to unintended consequences.

**Interenterprise Credit Markets in Russia**

One of the most fascinating consequences of the Russian economic reform program has been the phenomenal growth in interenterprise arrears that took place in the first half of 1992, when they grew from less than Rub 40 billion to over Rub 3.2 trillion. We view interenterprise arrears as a response by survival-oriented enterprises to survive tight credit policies in an economy with an underdeveloped financial market.

With underdeveloped financial markets, interenterprise lending seems inevitable. Under central planning, the enterprise sector was the primary source of savings. In the early phases of the transition, household savings were inadequate to meet the needs of the enterprise sector, not just for restructuring, but even for trade credit. If financial markets were well developed, enterprise savings could be intermediated by institutions. In the Russian environment, however, the inadequacy of financial information inhibited the growth of these

---

11 For a discussion of the vertical dependence of enterprises in Russia and its relationship to industrial concentration, see Brown, Ickes, and Ryterman (1993). This dependence is clearly a force that leads to the formation of financial-industrial groups.

12 It is the same as the problem for the cowboy trying to ride a bronco (never having ridden a horse before) from Moscow to Paris. At first, the cowboy does not care whether the bronco is going north, south, east, or west. All he cares about is not being thrown off the horse. Only after the horse is under control does the cowboy turn the horse toward the sunset.

13 For more on the arrears crisis in Russia, see Ickes and Ryterman (1992, 1993a).

14 For more discussion of savings under the old system, see Ickes (1993).
markets, at least with respect to the state-owned sector, leading to the
interenterprise lending results.

Trade credit is an important component of finance in modern econ­
omies. In the United States, for example, total trade credit of nonfi­
nancial corporations was $973.5 billion in the first quarter of 1992 (United States, 1992). Trade credit was thus about the size of the
narrow money supply (M1) and about one-fifth of GNP. In an industrial
economy, firms borrow from their suppliers and customers on a
regular basis. There is one critical difference, however, between trade
credit in the United States and interenterprise lending in Russia. In
the former, the interest rates that are charged tend to be quite high,
and certainly higher than interest rates charged by banks (Jaffee and
Stiglitz, 1990, p. 879). The nominal interest rate on interenterprise
lending in Russia, on the other hand, is almost always zero, translat­
ing into a negative real rate. Trade credit in the United States is a
means of financing that firms use when they cannot gain access to
bank credit.15 The higher interest rate reflects the increased risk asso­
ciated with the loan. The fact that real interest rates are negative for
interenterprise lending suggests either that enterprises have few
alternative investments or that lending to trading partners has the
highest return for an enterprise’s survival.

The problem of large interenterprise arrears is not unique to Russia
and the former Soviet Union.16 Economic transition has severed the
connection of enterprise balances to the government budget, so that
the financial losses of enterprises may become manifested in arrears.
What distinguishes the experience in Russia from that of other previ­
ously centrally planned economies is the explosive growth in the level
of arrears. The resulting large stock of arrears proved to be a great
hindrance to economic reform.17 Arrears make privatization of state
enterprises problematic by making it impossible to assess the finan­
cial viability of relevant establishments. Also, large outstanding debts
tend to exacerbate the difficulties of enterprises seeking to secure
further credits, especially from banks. Furthermore, arrears are an
important mechanism through which the problems of some loss-

---

15 Large firms in the United States tend to have greater access to bank credit and the
commercial paper market than do small firms. Therefore, large firms often borrow from
banks and lend to small firms (Jaffee and Stiglitz, 1990, p. 879).
16 For a discussion of the Romanian case, see Clifton and Khan (1993). For Hungary
and the former Yugoslavia, see Mitchell (1993).
17 To a large extent, the growth in arrears reflects the contradictions in the reform
process. That is, arrears have risen precisely because many enterprise directors did not
believe that the program’s calls for hard budget constraints were credible. As they
continued to behave as if it was business as usual, the arrears have been the outcome.
making enterprises are spread throughout the entire economy. The rapid growth in the level of arrears indicates that this phenomenon is more than the natural mismatch of expenditure and receipts in a modern economy.

The growth of arrears in Russia is linked to financial underdevelopment in two important ways. First, the malfunctioning of the system of payments caused long delays between delivery and payment. While enterprises waited for payments to clear, their own liquidity and, indeed, their solvency was subject to payments risk from other enterprises. Delays in payments, by themselves, can cause growth in interenterprise arrears (Ickes and Ryterman, 1992).

Second, financial underdevelopment causes arrears through the loss of financial information. One role of financial markets is to enable market participants to distinguish illiquid from insolvent firms. This capacity was conspicuously absent in 1992. Consequently, enterprises were unable to borrow to finance short-term liquidity.

In an environment of underdeveloped financial markets, the financial autonomy of enterprises poses a severe constraint. Imposing hard budget constraints in such an environment essentially imposes a cash flow constraint on enterprises. This constraint is more severe than the net worth constraint that most firms operate under in market economies. Even in an interdependent economy—let alone one with a slow system of payments—imposing a cash flow constraint is probably a sufficient condition to create a large chain of arrears.

In the case of Russia, however, the cash flow constraint was not the only factor that worked in this direction. A critical factor was the survival orientation of enterprises. Survival orientation leads to arrears because the enterprise has more to fear from failure to meet payrolls than from debts to other enterprises. The consequence of the former is the very survival of the enterprise. If the director wishes to stay in control, a necessary, but hardly sufficient condition is that the enterprise stay in operation. Survival requires payrolls to be met. Delays in paying for materials could, in principle, result in delays in their delivery. But even if delays in delivery occur, the consequences for the enterprises are less acute.

The basic reason why survival-oriented enterprises refrain from restructuring is that, at present, there are better uses for their funds. Because of the high level of economic uncertainty that characterizes transition, the return to long-term investment in Russia is not always clear. This information problem is compounded because directors of state-owned enterprises, through loss of employment, may not be able to appropriate the gains from investments with future benefits. Consequently, investments that promise a rapid return and are
highly liquid are preferred. Of course, such investments are limited. One present in the current environment is speculating against the ruble.

Perhaps the best use of funds, however, is to lend to other enterprises with which historical relationships are important. This is a direct investment in survival, since the survival-oriented enterprise perceives that its survival depends on the viability of its suppliers and customers. This influence certainly works against the development of capital markets. A capital market would move funds to higher-valued uses, but this move may not coincide with higher “survival investments.”

It is interesting to note how the growth in interenterprise arrears strengthens the role of the current directors in the enterprise. Enterprises can get away with arrears because suppliers are unwilling, or unable, to cut them off. But such an informal credit market works because of the historical relationships that enterprise directors have built up over the years. If the enterprise becomes reliant on this source of finance, the enterprise director’s marginal product is significantly enhanced. Replacing the director may jeopardize the relationships that have been built up, both with other enterprises and with banks, that are critical to survival.

There is a widespread belief among observers in both Russia and the West that the arrears crisis is history. It is certainly true that the level of accumulated arrears is presently much below the peak reached in June 1992. Institutional changes, such as prepayment, have had some effect.

The system of prepayment has greatly increased the problems of enterprises. The sudden change in the system of credit has made it very difficult for enterprises to obtain inputs. Prepayment requires enterprises to pay for inputs before selling the goods produced from them. When external sources of credit are limited or inflation is high (rapidly eroding the real value of internal financial reserves), this constraint is severe.

This difficulty in obtaining inputs has two effects. First, enterprises have drawn down their inventories of inputs. During the first half of 1992, enterprises accumulated inputs, often involuntarily. When prepayment became the rule, they drew them down. In a sense, the growth of arrears allowed enterprises to develop a cushion, which they used in the summer of 1992. The stock of inventories is not unlimited, however. The second effect of prepayment, therefore, is a decline in production. This decline in itself reduces the flow of new arrears; with lower production, less interenterprise credit is needed to finance production.
The system of prepayment is not universal. Enterprise directors still give credit to customers with whom they have historical relationships. Nonetheless, one might have expected that prepayment would have had an even more disruptive effect than it seems to have had. The reason that it has not is that the Central Bank has increased its credit emissions dramatically since the summer of 1992. Between June and October, central bank credit to commercial banks trebled, from Rub 580 billion to Rub 1.5 trillion, an increase in real terms of 100 percent. These credits were then lent to enterprises, often at interest rates that were highly subsidized.

The importance of subsidized, targeted credit cannot be over-emphasized. In 1992, directed credits from the Central Bank of Russia and the Ministry of Finance to enterprises were approximately 23 percent of GDP, and most of this was concentrated in the second half of the year. These credits are typically targeted by the Government to important enterprises. The Central Bank of Russia extends credits to commercial banks for the express purpose of lending to these enterprises, at annual interest rates far below the rate of inflation, and far below the interest rate in the interbank market.

The key point is that as long as monetary policy remains loose, arrears should not be expected to grow. Arrears are the response of enterprises to tight credit policies. Moreover, institutional adaptation has taken place in Russia. The proliferation of banks that are used to acquire central bank credit suggests that the next time that credit is tightened in Russia the crisis will manifest itself differently.

---

18 This response was common among enterprise directors interviewed in October and November 1992.
19 The Economist, December 26, 1992, p. 107. Central bank credit to commercial banks is especially important in Russia because deposits from the public (except for those in Sberbank) are almost nonexistent. These credits were part of a program of directed credits targeted to industry. The credits came from the Central Bank, with an interest subsidy paid by the Government. It seems to be true, however, that the Finance Ministry borrows from the Central Bank to finance the interest subsidies.
20 Central Bank of Russia credits to industry that were “not subsidized” carried interest rates 3 percent above the Central Bank’s refinance rate. This rate was 80 percent annually in the fall of 1992. With inflation at 25 percent a month, 80 percent still seems quite a good value.
21 There are really two parts of the subsidy. First, the explicit subsidy is the difference between the central bank: finance rate and what the enterprise was charged. But the central bank rate is itself below market; hence, it embodies an implicit subsidy. One measure of this implicit subsidy is the difference between the central bank rate and the nominal interest rate that would make the real interest rate equal to zero.
The Link Between Enterprise Behavior and Stabilization

The role of financial development in macroeconomic stabilization is not well understood. Some economists argue that development undermines central financial control because it expands the variety of credit instruments that are available; hence, it weakens the connection between base money and nominal income, as velocity becomes more unstable. They argue, therefore, that financial development, as well as financial liberalization, should be postponed to a later stage in transition.

However, such an argument ignores two important effects that financial underdevelopment has on the ability of a government of a country in transition to provide macroeconomic stability. First, the absence of efficient systems of payment and financial intermediation have important real effects on the level of production and, consequently, on the amount of taxes collected. Second, the absence of these systems leads to the development of certain systemic features that undermine the credibility of macroeconomic policy.

Loss in Tax Revenues

Financial underdevelopment undermines the ability of the government to collect taxes. In Russia, the delay in payments between enterprises led to a delay in the realization of profits. It also resulted in enterprises searching for more efficient, and often unrecorded, means of transacting. This delay and decline resulted in a significant reduction in the real value of taxes collected.22

But perhaps more important and more subtle is the loss in taxes associated with the loss of output owing to financial underdevelopment. Problems in both the system of payments and the allocation of credit were significant economic shocks to enterprises. Without intervention by the government and other nonbank providers of credit, these shocks might have initiated widespread failures of illiquid, yet technically solvent, enterprises.

Enterprises responded to these shocks by creating an interenterprise credit market and other informal mechanisms to facilitate payment, such as barter and coupons redeemable for goods. Although these informal mechanisms alleviated some of the pressure created by the underdeveloped financial system, they are necessarily inferior to a well-functioning financial system. First, these informal mechanisms use real enterprise resources in their operation. For

---

example, negotiation of interenterprise credit or barter transactions or the creation of near money use the time of senior enterprise managers, which could have been devoted to supervising production. In addition, transactions involving barter require the use of physical resources, such as labor and trucks to transport the goods.

Second, these informal mechanisms tend to operate based only on local information. For example, enterprises provide credit to their trading partners, in part because they do not possess information about the creditworthiness of other enterprises. Because the allocation of credit is not based on full information, it cannot be optimal in a first-best sense.

Finally, these informal mechanisms tend to rely on personal connections to make them work. As we explain above, this reliance on personal connections dissuades enterprises from adjusting. To adjust, enterprises must break away from historical relationships and create relationships with new trading partners, new bankers, and other agents. When the principal mechanisms of payment and finance are informal, this movement away from historic relationships introduces extra costs. Consequently, financial underdevelopment provides an important motive not to adjust. In this sense, underdevelopment is responsible for the gains from adjustment and for forgone taxes.

Loss in Credibility

The central paradox facing reformers in Russia today concerns the potential cost of signaling a commitment to market incentives in an environment ripe with the potential for market failure. The decline of communism affords policymakers the chance to alter fundamentally the rules of behavior in the economy. This is advantageous if the impediment to change is expectations developed in response to the old policy regime. It is dangerous, however, when that impediment is not expectational but structural.

The idea behind a commitment to the policy mix of low fiscal deficit, tight money, and hard budget constraints is that enterprise directors will change their behavior sufficiently that the threat of bankruptcy will not have to be executed. This threat must be credible; otherwise behavior will not change. Enterprise directors must believe that the policy regime has changed.

It is apparent that hardening budget constraints is a necessary condition for economic reform, but how to accomplish this objective is
not clear. Early in the transition, it was thought by some (and still is today) that hard budget constraints could be imposed by will alone. The problem with this view is that, in the transition from planning, many enterprises will have to be shut down because they are not viable in a market context. Hardening budget constraints can alter the behavior of viable enterprises, but, for those without positive net worth under current credit conditions, the enterprise will fail no matter how vigilant the monetary authority.

More than credibility is at stake here. This fact is often forgotten when analyzing the consequences of shock therapy. Shock therapy does involve a regime change, and the comprehensive nature of the changes combined with the stakes involved may suggest that the assumption that the change is credible is warranted. But even if directors believe that the regime has changed, bankruptcies will still occur because some enterprises will not be viable in a market context.

It is useful to distinguish between two types of state-owned enterprises that are present at the onset of transition. These are enterprises that cannot adjust in a market context, the CA, and enterprises that will not adjust, the WA, because adjustment is costly. The key difference between the two types is that the lack of adjustment by the WA is a function of inadequate incentives, while the CA do not adjust because the opportunity cost of the resources they use is too high.

It is evident that the CA will shut down, but the question is when. The pace at which the CA are shut down depends, among other factors, on the stance of monetary policy. One of the costs of a strict monetary policy is that enterprise liquidations occur sooner than might otherwise happen. If the policymaker was indifferent to the timing of bankruptcy, there is no cost to a tighter policy that shuts them down quickly. But, if there are costs, the policymaker may wish to postpone shutdowns until the transition is sufficiently under way that labor can be absorbed elsewhere.

A policymaker could be sensitive to the timing of shutdowns for various reasons. Timing could be important for political reasons. The policymaker could assume that if too many enterprises shut down at once, he will be fired. An economic argument about timing could point to congestion externalities; if many enterprises are shut down at once, the resources cannot immediately be absorbed into other uses.

---

24 Shock therapy is too simplistic a term to describe the reform policies employed in Russia (or Poland), but the name, unfortunately, has stuck.

25 Ericson (1994) analyzes the problem of how to shut down enterprises optimally in the transition.
Or, social safety nets may be inadequate to cope with mass liquidations. Alternatively, the policymaker may believe that with time some of the CA can restructure, so that if bankruptcies can be delayed they can be avoided altogether.

The goal for the policymaker is to induce separation of the CA and the WA. The policymaker has some prior beliefs on the proportions of CA and WA in the economy as a whole. This probability judgment affects his or her willingness to commit to the tight money regime. If the proportion of CA is high, the tight monetary policy will precipitate their shutting down. To avoid adverse effects, the policymaker may prefer a more gradual sequence.

Let $A$ be the proportion of enterprises that are CA ($A = CA/(CA + WA)$). It is important to note that $A$ is a function of credit policy. The higher are interest rates, the greater the proportion of enterprises that cannot adjust. The extreme case is where there is no credit, so a cash flow constraint exists; in that case, any enterprise that cannot cover its current costs is a CA.

The policymaker must estimate the likely behavior of enterprises, but the actions of enterprise directors (at least of the WA) depend on their expectations of what others will do. If all the WA adjust, and if $A$ is low, then for an enterprise not to adjust is costly, because it will stand out. If the director expects that others will not adjust, or if he expects that $A$ is high, then the likelihood that the director will not adjust increases. An essential strength-in-numbers phenomenon is at work here.26

A mixture of two uncertainties pertains here. First, there is uncertainty over types—whether the enterprise is CA or WA. The policymaker cannot distinguish these types ex ante. Second, there is uncertainty over actions—whether others will adjust or not. It is the presence of the uncertainty over types that allows for the possibilities for pooling. If $A = 0$, the government induces adjustment by imposing a sufficiently strong penalty, which in equilibrium it never has to enforce.

It is much more difficult for policymakers to be credible about hard budget constraints when $A$ is high than when $A$ is low. When $A$ is low, few enterprises actually have to be shut down. When $A$ is high, and thus it is easier for WA enterprises to pool, it is much costlier for the government to carry out its threat. But it is precisely the credibility of the threat that is needed to get WA enterprises to adjust. The ability of the government to minimize the economic dislocation that occurs

---

26 Calvo and Coricelli discuss the role of strength in numbers in generating arrears in Chap. 11 of this volume.
when hard budget constraints are imposed depends on the extent to which the government's commitment to this policy is deemed credible by enterprises. The more credible the commitment, the greater the number of enterprises that will adjust. Consequently, a credible commitment leads to fewer enterprise failures.

However, in Russia during 1992, the credibility of the Government's commitment to hard budget constraints was undermined in four important ways. First, the credibility of the Government's policy announcements was weakened by intergovernmental conflict. The Central Bank of Russia was not under the authority of the Government of Yeltsin, but rather answered to Parliament, until the events of October 1993. But the Central Bank is the key provider of credit to enterprises. Therefore, even if the Government stuck to its policy, the Central Bank could let enterprises off the hook. The Government's commitment to a low fiscal deficit is not a sufficient condition to ensure tight money. Thus, during 1992, the Government was relatively successful in reining in the fiscal deficit, but credit growth was still excessive.

Second, the relationship between net debt and gross enterprise debt is arbitrary. Consequently, the government could not know, ex ante, how many enterprises would fail if the policy was, in fact, implemented. Hence, it could not identify the full economic costs of this policy before its implementation. This uncertainty provided opponents of this policy fertile ground for dissent. It is in this aspect that the transition problem in Russia differs most markedly from that of stabilizations in other countries. The problem in Russia is not just that the loose fiscal policies of the Government relieve the pressure to adjust, but that the legacy of central planning is an industrial structure that is ill-suited to markets. Unfortunately, the Government does not know how ill-suited it is; only through marketization will this information be revealed.

Third, in Russia, the decision about the viability of enterprises focuses almost solely on the liquid position of the enterprise. In a real economy, the decision about viability should be based on the net worth of the firm. To calculate net worth, information about the value of an enterprise's assets is needed. However, without developed financial markets, this information cannot be obtained. In Russia, assets are valued at historical values, which, given the developments in Russia during 1992, renders them useless. This lack of information...

---

27 For an explanation of this relationship, see Ickes and Ryterman (1992).
28 Assets were revalued in October 1992, but given the monthly inflation rates in the last quarter of 1992, book values have again lost any serious meaning.
tion makes it nearly impossible for enterprises to borrow against future income. The measure of viability of enterprises in such a regime is not the net worth of the enterprise, but rather its current cash flow. Under such circumstances, imposition of a hard budget constraint may not only result in the wrong enterprises being shut down, but also in directors making decisions that lead to declines in the present value of the assets. Without information regarding the financial viability of enterprises, no arbiter can evaluate the proper disposition of an illiquid enterprise.

Finally, enterprises themselves can affect the level of information about enterprises that is available in the economy, specifically, by manipulating the level of payments in arrears. As explained above, the absence of financial markets heightens the importance of information about the liquidity of enterprises when assessing their viability. When many receivables remain uncollected and many debts remain unpaid, even the liquid position of most enterprises is difficult to assess. Consequently, arrears provide enterprises with a weapon to sabotage the government's commitment to hard budget constraints.

Interenterprise credit plays a crucial role here. The ability of WA enterprises to pool requires a source of credit. First, credit is needed by the CA to stay open. "Normal lenders" would refuse to lend to a CA. Interenterprise credit plays an important role, because it is motivated largely for reasons other than expected profitability. Enterprises lend to others because of survival orientation. Also, many do not know if they are WA or CA; this is an important characteristic of the noisy phase of the transition.

Interenterprise credit expands the strategy space of enterprises. Without this credit, the government would find it much easier to enforce separation between CA and WA. Moreover, without this source of credit, the cost to WA enterprises of not adjusting would be much higher. It is the presence of this type of funding that makes this strategy preferable.

The development of financial markets is a critical step to enable policymakers to distinguish CA from WA. The purpose of financial institutions is to separate these two types of enterprises. When finan-

---

This information problem also makes difficult an oft-heard suggestion for dealing with this problem—securitization. The idea of allowing secondary markets in arrears seems appealing. But under the conditions that prevail in Russia it is precisely the trading partners of an enterprise that are most informed about (or at least interested in) its viability. The lack of information explains the absence of other lenders. Who would buy the "securitized" arrears? If agents were willing to lend to these enterprises, why have they not simply lent to them directly? Such markets have not yet formed precisely because of these information problems.
cial institutions are underdeveloped, there is little information at the enterprise level. As we have emphasized, financial underdevelopment in Russia makes it extremely difficult to distinguish insolvency from illiquidity. What does this tell us about stabilization and regime change? At the very least, it suggests that it is naive to think that tight credit policies can be enforced without severe consequences. The idea that enterprises will adjust to a credible tight monetary policy would be valid if \( \lambda \) were close to zero. As Russia must restructure from a position where \( \lambda \) is much higher, tight money is just not credible. This feature suggests that imposing financial discipline on enterprises will be a prolonged process.

Given that hard budget constraints cannot be enforced immediately, what should policymakers do? To improve efficiency, it is important to convert subsidies from ex post to ex ante. Subsidies that are ex post do not induce cost-minimizing behavior because the government will pick up the losses. Ex ante subsidies, on the other hand, alter the incentives that enterprises face.

It is also critical to induce enterprises to operate in financial markets rather than interenterprise debt markets. The goal of policymakers should be to improve information at the enterprise level.

**Adaptation**

Even (especially) in an underdeveloped financial system, banks and enterprises adjust to financial shocks. One of the effects of the arrears crisis was a change in the behavior of banks and enterprises. These adaptations to financial stringency have effects on the functioning of the system. In particular, if banks and enterprises adapt by adopting more informal mechanisms, the effectiveness of the financial system decreases, as does the capacity of the center to control events.

Financial innovation as a response to tight monetary policy is a common phenomenon. In the United Kingdom and the United States, the adoption of precommitted monetary targets in the late 1970s led to a series of financial innovations that have severely weakened the relationship between monetary aggregates and nominal incomes.30

30Goodhart (1989, pp. 377-80) provides an excellent analysis of this process. In the United Kingdom and the United States, the effect of monetary targeting in a period of high inflation was to increase the variation in the burdens of tight money (since large depositors could receive market rates of interest). This increase in variation, in turn, led to pressure to deregulate and to financial innovations around restrictions. These
We have already explained how interenterprise arrears exploded as a response to tight credit in Russia in 1992. But this experience has also induced financial innovation by Russian enterprises. Indeed, as Thornton (1993) emphasizes, "the build-up of inter-firm arrears has provided a means by which managers of firms with poor long-run prospects can capture the income from production in the short-run while leaving the government with the obligations to print rubles to cover the unpaid costs of the firm." Thornton quotes Nikita Kirichenko (Kommersant, Vol. 42, October 18-24, 1993, p. 4):

Many enterprises have already undergone a process of clearing arrears and know how it is done. Among other things, they know how to acquire subsidized credits: simply arrange a sham contract to supply a shell organization with a few units of output at fantastic prices and the desired credits will be forthcoming.

The essential point is that in an environment of underdeveloped financial markets enterprise directors, who control rather than own their enterprises, are innovative at finding means of decapitalizing the assets. Our argument is that this process is enhanced by financial underdevelopment.

Perhaps the most important example of this is the proliferation of banks, formed by groups of enterprises, as a means of obtaining subsidized credit from the Central Bank. The vast majority of these banks act more as agents than as financial intermediaries. Thornton (1993) refers to them as "quasi-state organizations" because their activities are largely oriented to preferential or subsidized financing, responding to administrative rather than market-based incentives.

As the proliferation of quasi-banks is the response to the opportunities to obtain subsidized credit in an environment of inflation, it becomes increasingly difficult to assess the viability of individual enterprises or the quality of loan portfolios of these banks. The danger inherent in this situation is that when the next credit crunch occurs, the crisis will be centered in the banking system. In this case, financial underdevelopment will continue to make tight monetary policy problematic, but the manifestation will not be interenterprise arrears, but arrears from enterprises to banks. If this happens, a future credit crunch may pose grave danger to the entire banking system.

Another important innovation to the current environment in Russia is the development of financial-industrial groups. These developments in turn weakened the relationship between monetary aggregates and nominal income.
groups solve two problems for their members. They secure deliveries for enterprises by strengthening vertical relationships. In this way, they enable enterprises to circumvent the difficulties posed by an inefficient distribution system. This tends to solve an important problem for enterprises: maintaining supply relationships in the wake of the collapse of the state supply system (Gosnab). For our purposes, however, the more important function that these groups provide is financial. These groups enhance enterprise viability by being a source of finance to the members.

The proliferation of these financial-industrial groups may result in a "balkanization" of financial markets. Such a process could have important long-run effects for Russian economic development. These groups are likely to be regional in nature. Moreover, they tend to preserve existing relationships between enterprises rather than promote restructuring and market reform.

The likelihood that the next financial crisis will appear in a different form is enhanced by the efforts of these financial-industrial groups to insulate themselves from the next credit crunch by establishing banks. For these groups, banks serve as a means of securing for themselves a source of finance. It is also a means of circumventing an ineffective payment system. However, a banking system that is created out of these motives is not likely to be stable.

The arguments we present in this paper suggest that, in an economy in transition with an underdeveloped financial system, monetary policy must be sufficiently restrictive to encourage enterprises to adjust, but not so restrictive that enterprises choose to react in a way that undermines economic reform. If the government chooses to tighten credit too quickly or too severely, the credibility of the policy will once again be brought into question. Moreover, as long as financial markets are underdeveloped, tight credit policies have deleterious unintended consequences, such as gridlock in the payment system and arrears in the payment of taxes. Efforts to impose financial discipline on enterprises must therefore be associated with progress in developing the financial system in Russia.

References

Ericson, Richard E., "Cost Tradeoffs in Activity Shutdowns: A Note on Economic Restructuring During the Transition," in The Post-Communist Eco-


Comment
Jacek Rostowski

The magnitude of the interenterprise debt problem seems to have diminished sharply in Russia recently. Whereas payments arrears on the kartoteka dva—that is, as calculated by commercial banks—accounted for Rub 3 trillion (about 50 percent of annual GDP in June 1992—at June 1992 prices), by December the estimate for "accounts receivable" was Rub 5 trillion, or only about 16 percent of GDP.¹ The question is whether the problem will return in its acute form after stabilization.

The Polish experience² shows that if a stabilization program is credible, interenterprise debt will decline in real terms rather than increase. In Poland after stabilization the real value of such debt fell by almost half (from 18 percent to 10 percent of GDP), and has since remained at approximately that level. This occurred in spite of an almost complete absence of bankruptcies in the first six months of the Polish program. The key factor seems to have been high interest rates on loans and particularly on deposits. The latter made suppliers unwilling to give credit to customers.

Just how likely this is to happen in the Russian case depends to a large extent on one's explanation for the decline in real interenterprise debt since the summer of 1992. The optimistic explanation for this decline is that, although there was a multilateral clearing of such debt in August–September 1992, it came too late to save the enterprises that had extended this credit from severe losses owing to the fall in its real value. In this case, one can be quite optimistic about the likely behavior of interenterprise debt upon stabilization. The

¹ I am grateful to B. Granvelle for the figures for monthly GDP in June and December 1992, which allowed the calculation of annual GDP in June and December 1992 prices through the simple expedient of multiplying by 12, and to Russian Economic Trends, Vol. 1, No. 3, for the June 1992 figure for interenterprise debt. The December 1992 figure for receivables was provided by the Russian Government's Center for Economic Reforms. The figure given by Ickes and Ryterman seems to relate receivables at end-1992 to nominal GDP throughout 1992. Since inflation was very rapid, this would understate GDP in December 1992 prices and thus overstate the receivables/GDP ratio. However, all GDP figures for Russia in 1992 (and particularly those for monthly GDP) must be very tentative. The extent to which the arrears data for June and December 1992 are comparable is also questionable: the first figure comes from the kartoteka dva (the so-called File No. 2) on bank accounts and is therefore exhaustive; the second is merely an estimate by various Russian Government institutions.

pessimistic interpretation would put most of the stress on the very rapid rate of growth of nominal credit since the multilateral clearing exercise. However, the fact that the ratio of bank credit to nongovernment GDP rose only slightly, from 12 percent in June 1992 (which was when real interenterprise debt reached its peak) to 14 percent in March 1993, inclines one toward the optimistic interpretation.

Nevertheless, given the quality of current economic data in Russia, it is as well to be prepared for the possibility of a surge in interenterprise debt after stabilization as occurred in 1992 after liberalization. How should such an explosion of interenterprise debt be dealt with? The worst action is to inject money into the economy. The next worst is a multilateral clearing, as this is in effect a government-sponsored equalization of the value of all debtors' interenterprise liabilities and also the setting of their real value equal to their nominal value. As such it causes severe moral hazard problems. The best way of handling a surge in interenterprise debt is to do nothing: Latvia, which had an interenterprise debt/GDP ratio very similar to that of Russia in May 1992, refused to carry out a multilateral clearing, and now has inflation of a few percent a month and a fully convertible currency that has been appreciating against the U.S. dollar. An important part of doing nothing is, of course, to have positive real interest rates as part of the stabilization program.

However, if there are doubts about the authorities' political ability to resist calls for inflationary solutions such as multilateral clearing or money creation, making interenterprise debt tradable should be considered. One of the main reasons for the difficulties surrounding such debt is that a properly functioning bankruptcy system does not exist in most previously centrally planned economies, so that interenterprise claims cannot effectively be enforced directly against debtors. If this debt is made tradable, creditors can obtain liquidity by "bypassing" their debtors and selling their claims at a discount to the debtors' debtors. The creditor's liquidity gain is the debtor's loss, as the debtor will not then obtain the money he is owed by his own debtor. For this to happen, the debtor's debtor must be able to set the face value of his creditor's liability against his own liability to his creditor, and only be required to pay any residual. Debtors themselves would of course be able to bid for their own liabilities by offering to buy them at a discount in exchange for immediate payment.

3 The existence of a bankruptcy law is not the same as the existence of a bankruptcy system. Only Hungary has an efficient bankruptcy system. Poland has had a law since the beginning of its reforms and a system that is still very inefficient but is slowly improving. The Czech Republic's bankruptcy law only came into force in April 1993.
 Tradable debt is after all the solution that has been generated by the market in that other area in which bankruptcy is impossible—sovereign debt.

The simplest way of ensuring that interenterprise debt is tradable is to require suppliers to obtain a properly executed bill of lading, bearing the signatures of the relevant authorized persons representing the customer. If such a bill is not obtained when goods are delivered, the goods would be deemed by law to be a gift from the supplier to his client. If the bill is obtained, it is deemed a formal liability of the client, obliging him to pay within a certain period, and can therefore be sold by the supplier at will.

The question of what happens if the debtor goes into liquidation while it has outstanding interenterprise debt that has been bought by one of its debtors is not an insurmountable problem. First, the right to offset a debtor’s interenterprise liabilities against his assets is needed because of the absence of a functioning bankruptcy system. Thus, problems in exercising this right will not normally arise as a result of bankruptcy. Second, the right to offset interenterprise liabilities against assets could only be made good against the debtor before his bankruptcy has been declared, as with other kinds of liability; after this date they would have to be submitted to the liquidator for settlement.4

The most important result of such an interenterprise debt market is that it eliminates the danger of a “liquidity logjam,” by which whole chains of enterprises can claim that they cannot pay each other or—possibly more dangerously—the budget, because they have not themselves been paid. If interenterprise debt is tradable it will allow liquidity to flow to where it is most needed, possibly cutting out whole bands of nonpayers, and at the same time revealing the true revenues of suppliers.5 In this way, most of the arguments for inflationary solutions to the interenterprise debt problem will be eliminated. The pressure to increase the money supply so that it can affect the existing nominal mass of payments due should disappear when the nominal value of these payments can adjust itself automatically to the existing money supply.

4 A market of this kind exists in the interenterprise debt of Polish coalmines, and these liabilities are used as payment to the mines by some of their customers. In Poland the right to set interenterprise assets and liabilities against each other derives from the civil code.

5 It is of course these and not the formal sales prices that must be taken into account in calculating profit and sales taxes.
Furthermore, interenterprise debt trading will—if public—generate useful information regarding the standing of various enterprises. A firm, its suppliers, and its direct customers are likely to be as well informed about its financial situation as any group of actors in the economy, and in public auctions of interenterprise debt their collective assessment would become available to all. If such auctions existed, and if, furthermore, this debt was made convertible into equity (at nominal value into the book value of enterprises' "own funds"), this could be a powerful tool for the privatization of the economy. Something similar is being done in Poland under the enterprise and bank financial restructuring program. As part of a compact between creditors and a bad debtor, bank and interenterprise debt can be traded, and any holder of more than 30 percent of a bad debtor's liabilities can have them converted into equity at par (subject to the approval of the Ministry of Privatization).
PART II

The Central Bank and the Payment System
Payment System Reform in Formerly Centrally Planned Economies

David Folkerts-Landau, Peter Garber, and Timothy D. Lane

A payment system capable of speedy settlement of transactions in goods, services, and basic securities is a linchpin of a functioning market economy. Measures to ensure the integrity of the payment mechanism and eliminate long and uncertain delays in settlement are therefore an essential part of financial system reform in formerly centrally planned economies.

An effective payment system combines two vital elements. The first is trust among the participants, expressed as a willingness to postpone settlement of an obligation in good funds. For example, a seller of goods may be willing to accept a promissory note in payment and not insist on settlement in currency or bank deposits. Similarly, banks may extend credit to each other to meet payment imbalances rather than insisting on settlement in currency or bank deposits. Such arrangements expedite payments, allowing a greater range of mutually beneficial transactions to take place.

A second vital requirement of a payment system is discipline. Because credit may be extended automatically in the process of effecting payments, there is the potential for abuse: transactors could use the system to incur unsustainable imbalances between their payments and receipts. Discipline requires that settlement in good funds

---

1The authors are grateful for country-specific information provided by V. Sundararajan of the IMF's Monetary and Exchange Affairs Department. The views expressed here are those of the authors alone and do not necessarily represent the views of the International Monetary Fund.

2An overview of issues in financial sector reform in formerly centrally planned economies is provided in Lane (1994).
be made at sufficiently frequent intervals; other rules may also be needed to prevent an unbridled expansion of credit in the system.\(^3\)

The failure of either trust or discipline can impair the efficiency of the payment system, and indeed of the financial system as a whole. If households and firms distrust each other but have confidence in banks, they will insist on settlement in bank deposits, and the consequent large holdings of deposits will allow banks to intermediate between borrowers and lenders on a large scale. If the banks distrust each other, they will insist on settlement in central bank deposits; banks will then hold large amounts of reserves or securities that the central bank will discount and will intermediate far less between private borrowers and lenders. More transactions will require settlement in central bank liabilities, and the central bank or the treasury will have to intermediate between borrowers and lenders. Such a system is usually characterized as being illiquid.

A failure of discipline can also undermine the payment system. The Achilles' heel of financial discipline is the prospect of a bailout: if transactors ultimately expect to be indemnified for any losses resulting from bad debts, they have no incentive either to insist on settlement in good funds or to monitor the creditworthiness of their counterparties. In this case, arrears in payments will continue to mount, both within the banking system and elsewhere in the economy; when a bailout does occur, therefore, it will have to be huge. If the creation of credit through the payment system is unchecked, it frustrates the system's purpose of facilitating the exchange of objects of value; it may instead become a mechanism through which transactors try to obtain a larger share of the eventual bailout.

Trust and discipline in the payment system are both serious concerns in economies in transition. Discipline has hitherto been deficient, as state-owned banks and enterprises have operated under "soft budget constraints" (Kornai, 1980) with the assurance that their debts are underwritten by the state. Even where the supply of credit provided by the banking system has been limited, there has been an explosion of interenterprise credit, typically in the form of arrears (Tyson, 1979). There have also been long delays in settlement within the banking system, as banks have taken advantage of the credit automatically extended through the payment mechanism.

This situation is expected to change. If the authorities in formerly centrally planned economies manage to distance themselves from the state enterprises—by privatizing them, or at least by making a credible commitment to limit bailouts—credit risk will become a much

\(^3\)The issue of market discipline is explored in a more general context in Lane (1993).
more important consideration. It is difficult to evaluate a counterparty's creditworthiness in this setting, though, as this depends on the creditworthiness of that party's debtors, and so on, which have never been put to the test. Moreover, many participants in the payment system may actually be insolvent, which could make transactors reluctant to accept credit and lead them to insist on payment in good funds. The result could be an illiquid system, resulting in high transaction costs and a consequent implosion of trade.4

This paper will focus on the wholesale, interbank payment system, bearing in mind the broader issues of payment system development. It is through interbank transactions that sizable payments among firms and households are intermediated. Transactions among banks are also central to bank liquidity management and money market development, which in turn are essential to any move toward market-based implementation of monetary policy.

The next section discusses in greater depth the importance of the wholesale payment system—not only in intermediating payments among enterprises and households, but also in enabling banks to engage in more rational liquidity management, and consequently in the development of money markets and the implementation of monetary policy. The following section describes the salient features of the existing state of payment systems in formerly centrally planned economies, explaining why this concern has only recently emerged. Then the policy issues involved in establishing a clearing and settlement system for interbank payments are discussed, especially the allocation of settlement risk, along with steps already taken or planned to reform interbank payment systems in various Central and East European countries.

Why Is the Interbank Payment System Important?

The establishment of an efficient system for payments among banks is important for several reasons: intermediating payments involving households and other firms; permitting active liquidity management; facilitating the development of security markets; and establishing the basis for implementation of monetary policy.

4This may already have occurred with respect to cross-border trade in the successor states of the former Soviet Union. It has been argued that something similar took place in Poland in 1990, accounting for the abrupt decline in output (Calvo and Coricelli, 1992); this argument remains controversial, as it depends on the credibility of the authorities' announcement that a bankruptcy law would henceforth be enforced.
Clearing and Settlement

A payment system is a mechanism whereby financial institutions, other firms, or households can transfer funds to discharge their obligations. From the standpoint of firms and households, payments may be carried out in cash or by check or giro; the latter two media depend on an effective means of transferring funds among banks when payor and payee have accounts in different banks. This process can be divided into two parts: clearing—the transmission and recording of the instructions to make a payment; and settlement—the actual transfer of some medium generally acceptable in fulfillment of the payment instruction.

In most Central and East European countries, interbank payments are so sluggish that there may be delays of as much as several weeks during which neither payee nor payor has access to the funds. This results in the widespread use of cash, which is less convenient and secure in other respects.

In a complex financial system, in which payments in many directions take place on any given day, the risk of payment bottlenecks could be reduced by some form of netting arrangement (Bank for International Settlements, 1989). Under a netting arrangement, each participant needs to have reserves sufficient only to cover the net balance owed to the system, rather than enough funds at any moment to cover its gross payments. In this case, the large-scale payment system is used only to settle the net balance owed by or owing to each bank.

A clearinghouse often provides facilities for netting payments, as well as for the exchange of checks and other payment orders among its members to minimize operating costs. In advanced market economies, clearinghouses may be voluntary associations of financial institutions or they may be operated by a central bank. The clearinghouse rules specify conditions for membership and members' rights and obligations and provide facilities to exchange checks drawn on each member institution, as well as standardizing other details such as the times by which checks must be presented to be made part of the settlement for a particular day's business, and the standard format in which checks must be presented for clearing. Clearinghouses have also typically been active in developing methods of speeding the clearing and settlement of checks and reducing the operating burden on each member, fostering innovations such as automatic clearinghouses, electronic check presentment, and magnetic tape exchange. Another implication of clearinghouse rules is the allocation of settlement risk among the members, by specifying procedures to be fol-
allowed in the unlikely event that one of its members cannot settle its net position at the final settlement. This procedure may require the unwinding of transactions made by the defaulting member, or it may include provisions for sharing of losses incurred in the day's payments associated with the insolvency of any of its members.

An efficient interbank system is at most a necessary, not a sufficient, condition for an efficient retail payment system. Inefficiency in internal bank organization can also lead to slow payments, even when the banks can transfer funds readily among themselves. Banks may also have the incentive to delay payments in cases where they enjoy interest-free use of the funds in transit. The interest forgone is not the only resulting cost to the transactors in heavily distorted financial markets, where the payee who is deprived of the use of the funds may not be able to borrow at a market interest rate. The delay and uncertainty of payment thus impose a particularly heavy penalty on trade in an illiquid environment such as that of formerly centrally planned economies, and may discourage trade that is otherwise advantageous to the parties involved.

**Bank Liquidity Management**

If banks cannot readily transfer funds among themselves, it is difficult for them to engage in active liquidity management, for they lack means of investing funds for short periods or obtaining funds at short notice. The inadequacy of facilities for money transfer in Central and East European countries is reflected in banks' typically large excess reserves, which constitute a drain on their resources. This may also make it more likely that an unexpected excess of payments over receipts may lead a bank to become illiquid, possibly generating a banking crisis.

The holding of large excess reserves as well as the risk of crises may be attenuated by the central bank's acting as a lender of last resort. Central bank intervention may engender moral hazard problems, however; for example, banks on the verge of collapse may turn to the central bank for funds when other financial market participants quite rationally refuse to lend to it. It is harder for the central bank to scrutinize the creditworthiness of banks that turn to the discount window for funds where regulation and supervision of the banking system are in an embryonic state, as in Central and East European countries. These considerations also point to the desirability of reducing uncertainty in the timing of settlements, so that banks do not normally need to turn to the central bank for funds to deal with everyday fluctuations in their payments and receipts.
Funding Across Disparate Intermediaries

Another important function of the wholesale payment system is to provide facilities for longer-term interbank lending to promote a more efficient allocation of funds. At any moment, some banks may be experiencing inflows of deposits that exceed loan opportunities available, while for other banks the converse may be true. Such imbalances are structural in economies in transition, where the banking system is largely a relic of central planning. Typically, a state savings bank network specializes in collecting deposits from households, but has few outlets for lending, whereas other institutions, including commercial banks and particularly the specialized banks such as agricultural development banks or investment banks, have lending opportunities but little deposit base.

There are two ways to deal with this mismatch between deposit base and lending opportunities. One is to implement a general restructuring of the banking system and to bring about a more balanced portfolio structure for each of the banks. A more expedient alternative is to promote the development of an interbank market, through which banks with excess liquidity can lend funds to other banks more specialized in finding appropriate lending opportunities. Development of the wholesale payment system is essential for this interbank lending to deal effectively with disparities in the availability of funds and of opportunities for profitable use of funds.

Money Market Development

Similar considerations govern the payment system’s role in facilitating money market development. Assets’ liquidity depends on the speed with which “good funds”—the medium acceptable in final settlement—can be obtained by selling these assets: a bank will probably not invest excess funds in the money market if long delays ensue in reselling and receiving settlement for these assets when funds are again needed. Moreover, long and unpredictable delays in obtaining funds for securities sold or in borrowing funds at short notice increase the risk faced by market-makers; the bid-ask spreads needed to cover these risks may stifle budding money markets.

A money market provides a basis for developing the spectrum of financial markets that guide the allocation of savings in the economy. Active and deep money markets permit active liquidity management by securities dealers, which reduces their costs and risks of operation, and in turn enables them to make markets in securities of other maturities as well as in equities. These longer-term markets will then-
selves be more liquid and flexible, and thereby more effective as a means of allocating resources, to the extent that they are supported by a liquid money market, and more fundamentally by an efficient system of interbank payments.

**Implementing Monetary Control**

The effective market-based implementation of monetary policy is a medium-term goal of financial sector restructuring in Central and East European countries (see Khan and Sundararajan, 1991). Effective monetary control is essential in achieving the price level stability that is part of an environment in which market economic activity can flourish.

Payment system reform facilitates market-based monetary control in several ways. Most obviously, if sufficiently deep money markets do not exist, there is no way of carrying out meaningful open market operations: the instruments of indirect monetary control are simply unavailable. Moreover, if banks cannot engage in active liquidity management, they tend to hold large and variable excess reserves. This makes reserve money programming a difficult, perhaps nugatory, exercise. Moreover, if banks lack the means of obtaining reserves from other banks at short notice at market interest rates, tightening monetary policy will either risk making one or more banks illiquid or lead to an offsetting expansion of the monetary base through the refinance facilities.

Without a smoothly functioning payment system, short-term interest rates do not provide good indications of financial market conditions owing to transaction noise. Thus, the authorities cannot depend on interest rate signals to control quantities such as base money or reserve aggregates. Reducing this transaction noise by modernizing the wholesale payment system would increase the effectiveness of policy, as well as making interest rates a better guide for banks and other economic agents.

Finally, central bank float—credit extended by the central bank to the banking system pending settlement of payments—can be reduced with an improved payment system. In Central and East European countries, cash items in the process of collection or awaiting settlement have often been a substantial component on the balance sheets of the banks and of the central bank; this has added to the uncertainty of monetary programming, making it more difficult to forecast money, credit, and reserve aggregates.

Reform of the interbank payment system will therefore facilitate the market-based implementation of monetary policy both by adding the
necessary tools to the central banks' kit and by improving the quality of information the central banks can use in implementing monetary control.

Background in Central and Eastern Europe

Dissolution of the Monobanks

In characterizing the existing state of the interbank payment systems in the Central and East European countries formerly under central planning, it is important to consider the legacy of the monobank system. Under this system, a single bank carried out the functions of both central and commercial banking. It was therefore typically supplemented by specialized banks, including a national savings bank, a foreign exchange bank, and an agricultural development bank. Enterprises were often restricted to doing business solely with one particular bank.

This structure had the effect of limiting the volume of interbank payments. It also limited the amount of competition in the system. Enterprises were typically authorized to borrow virtually unlimited amounts from the bank to which they were assigned in making transactions authorized under the central plan. Enterprises were not required to have funds available in their accounts to make authorized expenditures. In general, enterprises' decisions were constrained not by the funds available to them or by their overall solvency, but by the allocation specified in the central plan and the availability of raw materials and other inputs. Furthermore, central planning did not attach any time value to money, so enterprises were not particularly concerned about receiving funds promptly. These aspects of the central planning system—the limited number of banks, the lack of competition in the system, and the lack of urgency for banks' customers to obtain speedy clearance of their payment orders—together with the underdeveloped telecommunications system, led to a payment system that was very slow.

The monobank system has been largely dismantled in many formerly centrally planned economies: in Hungary in 1987, in Poland in 1989, and in several other countries in 1990. The monobanks' assets and liabilities together with their branch operations were devolved onto newly formed commercial banks. In general, these commercial banks were regionally concentrated: in Poland, for example, nine new commercial banks were established, each inheriting the National Bank of Poland's commercial banking activities in a particular region.
of the country. In the former Czechoslovakia, one new commercial
cbank was established in the Czech lands and one in Slovakia. In
Hungary, several new banks were established to take over the
National Bank of Hungary’s commercial banking operations.

As the monobanks were broken up, what had been intrabank
transactions became interbank transactions, making the establish­
ment of an interbank payment system an important goal. Initially, the
newly formed commercial banks were unequipped to carry out trans­
actions among themselves; any interbank settlements were settled on
the books of the national bank, with no netting or other arrangements
to facilitate them. Commercial banks therefore had to hold large
amounts of excess reserves, and the vagaries of the payment system
resulted in large fluctuations in reserves. The clearing of payments
was often very cumbersome. For example, in Poland in 1990, all pay­
ment orders below $10,000 were transmitted by ordinary mail, and
even the establishment of the special interbank mail courier system
was considered a major step toward making the payment system
efficient. Anecdotal evidence suggests that lags in check clearing of
three weeks or more were common.

Interbank and Intrabank Transactions

Because the newly formed commercial banks in formerly centrally
planned economies were carved out of the branch networks of the
monobanks, establishing an efficient interbank payment system
entails some particular problems. One is the need for consolidation of
each bank’s branch accounts to treat each bank rather than each
branch as a unit. By contrast, for example, the National Bank of
Poland until recently treated each separate branch independently so
that each bank maintained multiple clearing accounts with it. Under
these arrangements, a bank was concerned not only with its aggre­
gate balance with the National Bank, but also with the balance of each
of its branches. Each bank made an agreement with the National
Bank about the amount of refinance credit available to it, and then
allocated this refinance credit across its branches, informing the
National Bank of the allocation. If a particular branch had a negative
balance with the National Bank because of an imbalance of its settle­
ment of payments, the National Bank automatically supplied that
branch with refinance by providing payment credit at the minimum
interest rate. If the branch exceeded its refinance credit allocation, it
had to borrow at a penalty rate even if other branches of the same
bank, which deal with the same branch of the National Bank, had
excess reserves. As a result of the separate treatment of each bank
branch, banks had to use the facilities of the National Bank to transfer funds among branches; this meant that intrabank payments occupied a large part of the telegraphic transfer facilities of the National Bank. Consolidation of bank branch accounts, implemented in 1992, was expected to lighten the traffic on the telegraphic transfer network and permit a larger proportion of interbank payments to take place through telegraphic transfers. It would also permit bank-wide liquidity management, which had hitherto been next to impossible.

**Lack of Banking Skills and Techniques**

A feature of the banking systems of many of the Central and East European countries that impedes the effective use of an interbank system is the inefficiency of the management of these banks. In many banks—particularly the state savings banks, in which the majority of household deposits are held—transactions are carried out by hand rather than electronically. In addition, procedures carried over from the days when banks were essentially record keepers for the central plan have exacerbated delays in processing payments.

Cumbersome procedures adopted by the central banks of these countries often aggravate the problem. For example, the development of a market in bills issued by the National Bank of Poland was hindered by National Bank rules in early 1991. If the bank wanted to purchase bills as a temporary repository for liquid funds but chose to leave these bills for safekeeping, it had to send an official to the National Bank to take possession of the bills and carry them to another window in the same office to place them in safekeeping. The absence of any mechanisms for carrying out such transactions over the telephone without physical transfer of paper, let alone a system of electronic "book-entry" transfers of government securities, impeded the development of the money market.

**Telecommunications Facilities**

Another important factor in most Central and East European countries is the primitive state of the telecommunications system. It has been extremely difficult to effect transactions by telephone, and the establishment of an interbank payment system involving the electronic transfer of funds between different banks would be impracticable with the existing facilities.

In the establishment of an interbank payment system, attention has typically been focused on the purely technical requirements for the electronic transfers of payment orders. Although this is an important
condition for an efficient payment system, it is not the only one: attention also needs to be given to the economic policy underlying the transfer of funds through the payment system.

**Refinance**

Credit from the central bank to the banking system also frequently plays an important supporting role in relation to wholesale payments. In formerly centrally planned economies, the issues are somewhat different from those in developed market economies, however. In the monobank system, credit from the central bank to other banks was hardly needed, because of the latter's limited role. Within this system, the specialized banks could often run current account overdrafts at the national bank, and similar overdrafts could be run between different branches of the national bank.

After the dismantling of the monobank, central bank refinancing has often had two roles. Some refinancing—usually taking the form of overdrafts on current account—is associated with liquidity needs and in some cases even from a simple failure to settle accounts. The danger with this form of credit is that it may become open-ended. The central bank then cannot limit the credit it provides to some financial institutions, which continue to incur overdrafts. Any quantitative limits the central bank sets on these overdrafts are routinely exceeded and ratified ex post (as illustrated, for example, by the frequent overdrafts of the Bank for Food Economy in Poland). Some refinance credit is also closely linked to the provision of preferential credit to households and enterprises. For example, in Poland before 1990, refinancing was provided at preferential interest rates to subsidize the commercial and specialized banks' provision of credit for agriculture, housing, and central (officially approved) investment. These different aspects of refinancing have often resulted in a plethora of different lines of refinance credit.

**Supervision and Regulation**

The weakness of the structure of bank regulation and supervision, with an attendant danger of manipulation and fraud, poses particular problems for the establishment of a wholesale payment system. When weak banks are allowed to have direct access to the interbank payment system, they create severe risks of nonsettlement. The challenge to the regulator when such banks are present is to prevent an insolvent institution from pumping a large proportion of its liabilities through the payment system so that the payee has access to the funds
before settlement. Such access would spread a single bank's insolvency throughout the system. This challenge exists both in high-volume electronic systems and in paper check-clearing systems. The problem needs to be controlled through strong regulations limiting the amount of credit implicitly extended through the payment system by requiring settlement before the payee is allowed access to funds. Supervision must be continuous to ensure that regulations are not circumvented, especially in an environment in which the quality of bank management is at best untested.

Poland's 1991 Art B scandal provides an example of the potential for fraud that arises if the interbank payment system is inadequately regulated. Art B, a private company, was able to write certified checks on accounts in which there were no funds. If these checks were deposited in another bank, the company would immediately be credited with funds in that bank, while it would take several days before the check cleared and the account on which the check was written would be debited. With a certified check, the bank in which the check was deposited was immediately credited with the funds by the National Bank of Poland, while the bank on which the check was written was not debited until the check cleared. Art B would therefore have the use of funds until the check cleared. This check kiting scheme was possible largely because banking regulations at that time specified that settlements corresponding to transactions exceeding the equivalent of $10,000 had to go through the National Bank of Poland's wire transfer system, while checks for less than that amount would be cleared by mail. Art B therefore wrote many checks for amounts slightly less than $10,000 so that the checks would be processed by mail and would take several days or even weeks to clear. Art B was allegedly able to do this because its bank, BSK, was prepared to certify checks written on accounts with zero balances, in return for a guarantee by the state savings bank, PKO-BP. An estimated $200 million of fraudulently obtained funds were taken out of the country. When the scheme was exposed, criminal charges were filed against officials of the National Bank, PKO-BP, and BSK.

The Art B affair had serious ramifications for Poland's banking system. First, it resulted in an extension of the National Bank's float by as much as 7 percent of narrow money, with a corresponding increase of the measured money supply. Second, the National Bank of Poland changed the regulations pertaining to interbank clearings, requiring that all interbank clearings associated with check transactions be handled by telecommunication methods. This measure was designed to help reduce the float and to aid in monitoring interbank transactions. This episode illustrates the potential for abuse when the
regulatory structure is inadequate to discipline the extension of credit through the payment system.

Policy Issues in Payment System Reform

In designing payment systems for formerly centrally planned economies, some important policy issues must be addressed. These pertain to the allocation of risk among participants and the appropriate role of government in establishing and sustaining the system. It is important to address these issues and put the right set of arrangements in place from the start, to ensure the payment system's ability to withstand the strains that will inevitably result from an increasing volume of transactions under conditions of massive restructuring of the financial sector and of the economy as a whole.

Allocation of Risk

The operation of a payment system involves two important types of risk. One is liquidity risk—the risk that a participant, even though solvent, might be unable to make a timely transaction because of a lack of readily available means of payment. A second is credit risk—a risk that in the event of bankruptcy of one of the participants, other participants would be faced with losses. These risks may be of particular importance to policymakers because they may become systemic—that is, they may spread throughout the system. For example, a default by one participant may lead to such large losses by other participants that they in turn may be unable to discharge their obligations, resulting in a chain of failures (Humphrey, 1986).

Associated with the issues of liquidity and credit risk is the notion of finality of settlement—that is, once a payment message is sent, it is certain that the payee will receive good funds that cannot be reversed, even if the payor subsequently becomes insolvent. Finality is generally a desirable characteristic of the payment system because it eliminates the risk faced by payees in the melee of the day's payment operations. However, it comes at a price, since the risk associated with default cannot be eliminated in the system; it can only be shifted either to the central bank, the members of the clearinghouse, or other, unsecured creditors of the defaulting party. Finality can also be achieved at the cost of delays in carrying out payments, for example, by retarding the processing of payment messages until the payor has good funds available to make a payment. This might entail forgoing some of the benefits of netting arrangements.
Role of Government

Governments play a role in developing and regulating the payment system for several reasons. One relates to the behavior of the system in case of a financial crisis. If a bank is perceived as risky, other banks may refuse to engage in payment transactions with it for fear that the settlement will subsequently fail, leaving them highly exposed. A troubled bank may then find itself isolated from the payment system and be unable to continue to carry out transactions even if it is not actually insolvent. To avert this situation it may be desirable for either the members of the payment system as a whole or the government to share some of the credit risks. This is in large part the basis of the "lender of last resort" function of the central bank: to provide funds to financial institutions that are illiquid but not insolvent to prevent a liquidity crisis. It is also the basis of some central banks’ provision of "daylight overdrafts" to permit payments to be processed without the need for each payment system participant to assess the creditworthiness of other participants. There may also be moral hazard problems associated with the government assuming such a role, however. There may be some benefit to having banks take account of the creditworthiness of their counterparties, since in some cases they may have information on this creditworthiness that is not immediately available to the authorities. Moreover, the authorities may not be entitled to exclude a bank from the credit offered through the payment system unless they are convinced that the bank should immediately be closed; other banks, if their own money is at risk, may respond to available information in a more timely manner. A system in which the authorities extend credit through the payment system, by transferring risk from other banks to the government, removes banks’ incentive to monitor one another and to act on the information they obtain.

A second aspect of moral hazard pertains to the troubled bank itself. A bank that becomes insolvent may be able to pay off a substantial portion of its liabilities using the credit provided through the payment system, and thus shift losses from the bank’s other creditors onto the central bank. Such a shift, which amounts to an unintentional bailout of the failing bank’s creditors, has the same adverse incentive effects, and budgetary consequences, as any bailout.

These opposing concerns—systemic risk versus moral hazard—argue for the importance of making a policy decision about the appropriate division of risk among the individual banks in the payment system and the government.
Another possible role of government in the payment system is in assessing banks' fitness to participate. As an extension of their general responsibility for regulating financial institutions, monetary authorities generally have a responsibility to scrutinize the accounts of the banks and protect against fraud and inordinate risk taking. In so doing, they typically have information about the soundness of particular banks that is unavailable to other banks that participate in the payment system. The authorities may therefore have a role in regulating banks' right to participate in interbank payments. The judicious use of the information available to the central bank may aid in preserving the integrity of the interbank payment system.

**Some Examples**

These principles can be illustrated by considering some examples of payment systems in which these risks are dealt with in different ways (see Folkerts-Landau, 1991).

*Fedwire*

One example is the U.S. Fedwire, which is used for making a large proportion of interbank transactions. In this system settlement is immediate and final. If the payor has a positive balance with the Federal Reserve, its balance is debited by the amount of the payment. Participants in Fedwire are allowed to run daylight overdrafts—that is, their balances with the Federal Reserve may be negative during the course of the day. At the end of the day, however, they are required to obtain funds to cover these overdrafts, either by carrying out transactions with market players to move funds from other banks, by borrowing from other banks through the federal funds market, or by obtaining Federal Reserve credit through the discount window. If, however, a participant turns out to be insolvent during the course of the day, the risk associated with the transactions that have already been carried out on Fedwire are borne by the Federal Reserve. The payees in these transactions do not suffer any loss.

*CHIPS*

An alternative method of risk allocation is the Clearinghouse Interbank Payment System (CHIPS), a private mechanism for large-volume dollar transactions operated by the New York Clearinghouse. CHIPS transfers are primarily related to international transactions. In
this system, the participants’ positions are netted continually through the day, and at the end of the day net obligations are settled through Fedwire transfers. If some participants are not able to meet their obligations, the participants in the CHIPS system share the losses according to a formal loss-sharing agreement backed by collateral. Of course, in the event of a large failure to settle, this amount may provide CHIPS insufficient resources to settle, so its promised “settlement finality” is not foolproof.

SIC

The Swiss Interbank Payment (SIC) system provides another example of how risk associated with interbank settlements can be allocated (Vital and Mengle, 1988). In the Swiss system there are no daylight overdrafts and no settling arrangements. Instead, a queuing system effects payments only when the payor has good funds available to transfer in settlement. The advantage of the Swiss system is that it ensures finality of settlement without requiring that any risk be borne either by the central bank or by the clearinghouse members at large. Its main drawback is the possibility of payments bottlenecks or even gridlock. In such a situation, gross payments in the system may be blocked entirely, even though net payments for the day for each bank are small relative to available reserves. This danger is particularly important if the payments being settled through the system are large.

Discipline Versus Speed of Payments

These various solutions to the wholesale payments operation underscore the trade-off between the allocation of risk in the payment system, which affects discipline, and the system’s efficiency in effecting payments; this tension always constrains the design of a payment system. Systems such as the Swiss system that carry out payments only when the payor has good funds available imply strict discipline—as they reduce the credit risk associated with a payment system—but are susceptible to occasional bottlenecks that disrupt the smooth flow of payments. Systems like Fedwire and CHIPS reduce the risk of bottlenecks by shifting some of the credit risk of the system onto the central bank or the collective members of the payment system, respectively, but this entails moral hazard problems. If the credit risk associated with the payment system is borne by the central bank, this may adversely affect participants’ incentives to monitor their exposures to credit risks associated with other participants. In the Fedwire system, the Federal Reserve has attempted to reduce the risk
borne by the central bank and the attendant moral hazard problems by placing limits on members' daylight overdrafts. But these limits in turn increase the danger that the system might be gridlocked under some circumstances.

Current Situation in Central and Eastern Europe

Considerations concerning the allocation of risk among the various participants in the payment system are only beginning to be of practical relevance in Central and East European countries. In these countries, the state-owned banks often have little sensitivity to risk considerations—in some cases because they are already insolvent owing to the legacy of bad loans on their books. Enterprises with soft budget constraints, which continue to exist, know that losses will be underwritten either by subsidies or by easy credit from the banking system. Other enterprises are therefore willing to extend credit to them or to allow them to accumulate arrears. In Central and Eastern Europe, few bankruptcies have occurred; in particular, few bank failures have occurred, despite the apparent insolvency of many of the major state banks in several of the countries. It is widely expected that at some stage the commercial banks will be recapitalized, and this may make market participants less concerned about the creditworthiness of their counterparties than they would otherwise be.

However, as market-oriented reforms progress in these countries, it is expected that budget constraints will harden. The banks are to be made independent joint-stock companies, and in many cases, plans for privatization of the banks are under way. Several of the reforming governments in Central and East European countries have declared the intention of establishing enterprise financial discipline. In a reformed environment, banks and other financial market participants would have to take account of counterparty creditworthiness. In sum, although the allocation of settlement risk in payments is not yet a major issue in the payment systems of Central and Eastern Europe, it will grow in importance as the other reforms of the financial system progress.

The enormous volume of transactions on the western large-scale interbank payment systems is accounted for largely by the importance of money market and foreign exchange transactions. Since such large-scale securities and foreign exchange transactions are not yet of practical relevance in Central and Eastern Europe, the volume of interbank payments will be much smaller in proportion to the volume of banking system assets and liabilities than in the large western economies. When money markets eventually develop, the large vol-
ume of transactions among dealers and large banks that characterize an advanced system of financial markets will emerge. Likewise, foreign exchange trading, which in most Central and East European countries has typically been the province of the central bank or of the specialized foreign exchange bank, is likely to become an area in which many financial institutions play an active role. Payment system design for the Central and East European countries should provide for the risk associated with the volume of transactions likely to emerge as other financial sector reforms take effect and as domestic financial and foreign exchange markets develop. It is important to establish a payment system that can deal adequately with the needs that ongoing financial system development will place on the interbank payment mechanism.

Reform Plans in Central and Eastern Europe

Reform of interbank payment systems has begun in several Central and East European countries. In many cases a priority is to upgrade the actual facilities for electronic transfer of funds. In some cases, this involves the establishment of completely new facilities. For instance, in Poland, a telex transmittal service for large-value payments was introduced in late 1990; then, in 1992, the National Bank of Poland wire network was developed, providing continuous settlement for interbank and other transactions. In the former Czechoslovakia, a fully computerized real-time clearing network began operations in early 1992. A system for large-value payments on the books of the National Bank of Romania was also introduced in the same year.

Transitional improvements can also be made with the existing technology, pending the introduction of new systems. These improvements include steps as mundane as requiring banks to use banking mail rather than regular mail service to transport paper documents and organizing efficient local physical exchanges of paper checks and other payment documents. Another important step is to link more banks with existing systems; for instance, a priority in Bulgaria was to link all the banks with the automatic payment system. Such upgrading requires both new hardware and the establishment of standards for the transmission of payments information, whether by paper or electronic means.

Clearinghouses with netting schemes to expedite clearing of transactions have also been organized. Clearing arrangements are often established on a regional basis; for instance, in Bulgaria, three regional clearing centers in addition to the one in Sofia were estab-
lished. Such arrangements are often considered the responsibility of the commercial banks themselves. For instance, in Hungary, the new clearing and settlement system that began operations in mid-1992 is under the auspices of the Clearing, Settlements, and Transactions Company. In Poland, the task of establishing clearinghouses has been assigned to the Polish Payments Association, of which the commercial banks are members.

Although clearinghouses may not need government involvement in their establishment, they do require a clear legal and regulatory framework governing payments. Some components of this structure must include a clear definition of the rights, obligations, and liabilities of all parties in the payment system, a requirement that banks act promptly on payment instructions received, and a clear definition of the rights of consumers in the system. An appropriate legal structure is necessary to reduce uncertainty regarding the timing and finality of payments.

Several countries have made a priority of reducing the central bank's involvement from its pervasive role under the monobank system. The central banks typically assume commercial banking risks. Also, they are involved in peripheral activities. For example, the national banks of several countries provide data processing facilities for the commercial banks, and only relatively recently did the National Bank of Hungary divest itself of customer account information.

The reforms of the payment system carried out thus far have often been successful in speeding up settlements, although in some cases the potential gains have not been realized. For example, in the Czech and Slovak Republics, despite a system that in principle allows clearing and settlement to take place in one day, in practice banks often drag their feet, leading to delays that may still amount to many days or even weeks. Similar delays have been noted in other countries despite improvements in technology.

The central bank refinance system needs to be reformed so that it can perform the function of lender of last resort—underpinning the payment system by providing credit to solvent commercial banks to enable them to deal with temporary shortfalls in liquidity (Goodhart, 1987). The legacy of the central planning system has typically been a patchwork of facilities for specific purposes, often at preferential rates. Priorities in this area are therefore to simplify the system, removing the preferential element and confining the role of central bank credit to very short-term (within-day or overnight) liquidity needs. One way of opening up refinancing to market forces, as well as fostering the development of money markets, is to establish a
market for central bank repurchase agreements (repos), whereby the central bank purchases and agrees to resell qualified liquid assets (government and national bank securities, bills of exchange, etc.) at a specified price; a repo market was established in Poland in April 1991. However, if, as in Central and East European countries the money markets are not highly developed, it may only be possible to establish sufficiently deep repo markets for a limited number of maturities—as, for example, in Poland where National Bank of Poland bills were offered for one month's maturity and repos on these bills for two weeks; in this case, the authorities may choose to supplement the repurchase facilities with other (non-market-based) credit facilities, perhaps by providing overnight credit to banks and other financial agents.

Conclusion

Reform of the wholesale payment system is an integral part of reform in Central and East European countries. The operation of an interbank payment system was not important under the system of central planning. The monobank system obviated the need for a large volume of interbank transactions; other aspects of the system reduced the urgency of ensuring swift and predictable settlements; and the official guarantee of bank solvency rendered the risk allocation issues irrelevant. The breakup of the monobanks, together with reforms designed to increase the autonomy of the banking system and to "harden budget constraints," have made the design of an efficient system for interbank settlements increasingly relevant. Such a system is crucial because of the increasing importance of risk considerations and the lack of other mechanisms for controlling it, the influence of the banking structure on the need for interbank lending, and the anticipated development of money and eventually securities markets.

In addition to its importance to the banking system, an efficient wholesale payment system is an essential condition for market-based implementation of monetary policy. It is a necessary condition for the development of an active and liquid money market in which open market operations might be conducted. An efficient payment system also reduces the noise affecting the relationship between monetary targets and instruments, both by reducing the size and variability of central bank float and by permitting banks to engage in active liquidity management and thereby reduce their need to hold large and volatile excess reserves.
Payment system reform is not only essential but also includes some key policy issues. These issues are intimately related to the need to establish both trust and discipline in the system—a need that is reflected in the trade-off between achieving final settlement promptly and avoiding the moral hazard problems that arise when finality is guaranteed by the authorities. These policy issues are best addressed before new payment facilities and arrangements are established: it is best to get the right system in place from the start, anticipating the needs and strains that financial market development will place on the payment system.

References


The Russian Payment System

Bruce J. Summers

Russia has embarked on a difficult transition from a monopolized command economy to a market economy. A necessary condition for a successful transition to an efficient market economy is the development of banking and financial markets. A crucial aspect of the development of Russia's domestic banking and financial markets is the payment system, which is used by enterprises and individuals to discharge obligations incurred in a market economy.

This paper describes some of the key concepts that underlie the operation of payment systems in market economies and applies these concepts to Russia's transition to a market system. Attention is given to the effects of payment operations, especially central bank payment operations, on the public's balance sheet. The respective roles of the private and public sectors in payment system development and the importance of marketplace competition in determining payment services are discussed. Special attention is given to the need for a large-ruble transfer system. Although the primary focus of the paper is the development of Russia's domestic payment system, attention is also given to the proposed new Interstate Bank, which is initially being designed as a multilateral clearinghouse for central banks to facilitate settlement of cross-border payments in the Commonwealth of Independent States.

There is no one pre-existing payment system model that can be prescribed for Russia. Many variables, some of which are unique and which involve local customs, public preferences, and legal norms,

---

1This paper is based on an article published in the March 1993 issue of the Russian journal *Money and Credit* and a paper given at the International Banking Congress in St. Petersburg in April 1993. The author acknowledges many discussions with Russian commercial and central bankers leading to the development of the ideas expressed here and to helpful comments received from Thomas Simpson and Lewis Alexander of the Board of Governors of the Federal Reserve System.
must motivate the development of each country's payment system. Accordingly, this paper does not attempt to prescribe a particular model of the payment system for Russia. Rather, it attempts to illustrate the practical significance of key concepts of a payment system as they might be applied in Russia. The concepts described here, however, may be considered to be "universal," as they have been developed over the past several years by bankers from the developed economies of Europe, North America, and Asia. Accordingly, they are building blocks for the payment system in any developed, or developing, economy.

Key Concepts of a Payment System and Their Application

The payment system is the apparatus through which obligations resulting from economic activity are discharged by transfers of monetary value. Obligations can be discharged through the payment system using cash (ruble currency) or ruble deposits held in banks. For payments made using bank deposits, it is necessary to use some form of payment instrument—such as a paper or electronic credit or debit payment—to move funds.

For a debit payment, such as a check, the receiver of money (the payee) initiates an instruction to the bank holding the deposit of the sender of money (the payor), ordering the paying bank to pay. This is done by presenting a check, which must be honored by the payor, who is the customer of the paying bank, once the check is authenticated. For a credit payment, such as a payment order, the party making the payment initiates an instruction to his bank to pay money to the intended receiver by initiating a payment order. Obviously, the owner of the deposit held at the paying bank, which is used to make payments, has more control over the funds when a credit payment, such as a payment order, is used.

When using deposit money in banks to make payment, the process for discharging an obligation can be divided conceptually into two parts. The first part is clearing, the process by which payment information is conveyed between the payor and payee and between the banks holding the accounts of the two parties to the transaction. Once a payment is initiated, clearing should take place quickly and reliably.

---

2 This basic process would also apply to a payment demand order, the instrument that was commonly used in Russia for interenterprise payments until the summer of 1992. Payment demand orders are discussed below.
in order to maximize efficiency and minimize financial risk as funds are being transferred. Because they provide account services to the public, commercial banks play an important role as intermediaries in the clearing process. It is not essential, however, that banks actually perform all of the physical processing associated with the clearing of payments. This function can be equally well performed, and indeed frequently is performed, by data processing service bureaus.

The second part of the process for discharging an obligation using deposit money in banks is settlement, in which the actual transfer of monetary value associated with the payment is made. Banks, of course, play the key role in settlement because it is through the accounts held on their books that the transfer of monetary value occurs. Commercial banks settle for the nonbank public and sometimes for other banks with which they have correspondent account relationships. The central bank, where all commercial banks hold accounts, is often used by commercial banks as the settlement entity for interbank transfers.

A key settlement concept is that of finality. A final payment is an irrevocable and unconditional transfer that discharges the obligation to make the payment. Payments made by the irrevocable transfer of balances between accounts that commercial banks hold with the central bank are said to be made in central bank money. Because balances held with the central bank are free of credit risk (because the central bank by definition cannot fail), use of balances held with the central bank is the surest form of payment.

Settlement of payments occurs on either a gross or a net basis. In gross settlement, monetary value is transferred for the total amount of each individual payment. In net settlement, the banks exchanging payments offset the amounts they are due to pay to and receive from each other, and a single debit (net debtor) or credit (net creditor) position is calculated for each bank, across all the payments subject to the netting. The banks participating in the netting will transfer only the monetary value necessary to settle the net obligations, which is much less than the total of all the underlying, gross obligations. The offsetting of payable and receivable amounts can occur between two parties, called bilateral netting, or among many parties, called multilateral netting. Multilateral netting is the basis for the settlements that are resulting from transactions on a number of financial exchanges.

---

and clearinghouses in Russia today. Accordingly, an understanding of netting and the benefits and risks it entails is a very important public policy issue in Russia.

Netting has a number of benefits, including economizing on the balances that need to be maintained to settle payment flows. At the same time, multilateral netting, in particular, results in a mutualization of risk among the participants in the netting arrangement. The failure of one net debtor bank to meet its settlement obligation arising from the multilateral netting can lead to the failure of the entire settlement, and consequently a failure to settle all of the gross payments included in the netting calculation. The mutualization of risk resulting from multilateral netting therefore has special systemic risk implications, which are described below.

The settlement process gives rise to certain risks that must be managed by the parties to the payment transaction. These risks include liquidity risk and credit risk. Liquidity risk is the risk that the counterparty in a transaction who owes funds will not meet his obligation on time, thus reducing the liquidity of the recipient of the payment who may, in turn, have planned to use the funds to make further payments. Credit risk is the risk that the counterparty in a transaction who owes funds will not meet his payment obligation because of insolvency, leading to an actual loss of funds by the intended recipient of the payment.

Of primary interest from a public policy standpoint is a third type of risk—systemic risk—which includes the possibility that one bank’s inability to settle its payment obligations will cause other banks to be unable to meet their obligations, either to their customers or to other banks. In the case of mutualized risk, especially that resulting from multilateral netting arrangements, systemic risk involves “domino” or “knock-on” effects, with adverse consequences for the entire financial system and possibly the economy at large. Multilateral netting of payments must be accompanied by sound risk control procedures that help control systemic risk. Such risk control procedures should be embodied in legally binding contracts among the participants in the netting arrangement.4

Clearing and settling payments can be complex, especially in a large country such as Russia, where there are many banks distributed over a wide geographic area. An efficient payment system therefore

---

requires a high degree of cooperation and coordination among banks, which usually occurs through a clearinghouse. A clearinghouse is a legal entity, owned and controlled jointly by its member banks, whose primary function is to coordinate the exchange and settlement of payments among its members. The activities of the clearinghouse might be limited simply to coordinating the physical exchange of payments among banks, for example, by organizing efficient and speedy transportation of payment documents. Clearinghouses may also, however, provide processing services to their members, in which they may operate fairly large data processing and data communications systems to process payment instructions. Clearinghouses sometimes serve as settlement agents, acting on behalf of their members to calculate net settlement positions for an exchange of payment orders.

Special payment arrangements may be organized to support settlement resulting from trading in securities, foreign exchange, or commodities, to ensure that there is a value-for-value transfer at the designated time of settlement. The simultaneous transfer of value, say, money for securities, minimizes the risk to the parties in the transaction that they will give something up without receiving something in return. Payment versus delivery refers to a clearing and settlement mechanism that synchronizes delivery of the financial or physical asset underlying the contract with the payment for the asset. Because buyers and sellers in emerging markets will demand a reliable and safe settlement mechanism as a condition of their participation in these markets, payment versus delivery systems are important even in the early stages of development of Russia's payment system. Indeed, settlement for purchases of government securities in the newly introduced public auctions conducted through the Moscow International Foreign Currency Exchange is based on the concept of payment versus delivery.

Balance Sheet Effects of Payment Operations

The timing of balance sheet credits and debits resulting from payments can have an important effect on the amount of liquidity supplied to the economy by the banking system. In the vernacular of banking, the balance sheet effects of differences in the timing of credits and debits from payments is referred to as payment system float.

If credits are systematically made before offsetting debits, the banking system will be providing liquidity to the economy, essentially in
the form of loans made through the payment system. Conversely, if debits are systematically made before offsetting credits, then liquidity will be withdrawn from the economy. In general, an efficient payment system should synchronize, on average, the timing of credits and debits arising from payments, thereby having a neutral overall effect on liquidity. Because central bank accounting practices for payments affect the liquidity of the entire commercial banking system, and thereby the nonbank economy, these practices are treated here in detail.

When the central bank operates part of the payment system and clears payments between commercial banks, as does the Central Bank of Russia, its balance sheet can reflect float vis-à-vis the commercial banking system. If the central bank credits the account of the bank receiving funds before it debits the account of the bank paying funds, debit float is created and the central bank increases the reserves of the commercial banking system, thereby increasing banks' lending capacity. Conversely, if the central bank debits the account of the bank paying funds before it credits the account of the bank receiving funds, credit float is created and the central bank decreases the reserves of the commercial banking system, thereby reducing banks' lending capacity. Similarly, if commercial banks debiting and crediting their customers' accounts do not make both settlement entries for a payment simultaneously, the balance sheets of commercial banks can reflect float vis-à-vis their customers.

The predominant payment instrument used in Russia today is the payment order. Under current procedures, the Central Bank of Russia debits the account of a commercial bank originating the payment order (note that the commercial bank has already debited its customer) upon receipt of the payment order. Some payment orders may take days or even weeks to reach the central bank office holding the account of the commercial bank receiving the payment order on behalf of its customer, who ultimately receives the payment, and the offsetting credit is not made until that time. Consequently, the Russian banking system generates a large amount of credit float as a result of current accounting practices combined with inefficiencies that result in long clearing times for payment instruments.

These accounting practices begin with the Central Bank of Russia and are carried forward by commercial banks. The result is a substantial reduction in commercial bank reserves and thereby a withdrawal of liquidity or working capital from the Russian economy, simply as a result of payment system operations. Moreover, because clearing times are quite variable, changing partly in response to random transportation delays, a good deal of uncertainty is introduced to the com-
mercial bank reserve management process. This uncertainty complicates Russian monetary policy, as it makes it more difficult for the Central Bank of Russia to estimate the total amount of reserves it supplies to, and that are demanded by, commercial banks.

The drain of working capital from the Russian economy resulting from systematic debiting of payments earlier than crediting, which is a direct result of the Central Bank of Russia’s policies, can be ameliorated by adopting funds availability schedules for payments. Funds availability schedules would be calculated based on detailed analyses of clearing patterns between Central Bank of Russia and commercial bank offices throughout the country, resulting in estimated clearing times between pairs of offices. For any particular pair of offices, the debit to the account of the bank originating a payment would be deferred by the amount of time it is estimated to take to deliver the payment to the central bank office that credits the payment to the account of the commercial bank receiving the payment. On average, credits and debits would offset, and float would be reduced to near zero, leading to an increase in working capital for the Russian economy.

Role of the Public and Private Sectors

Orderly development of Russia’s payment system will benefit from a clear delineation of the roles of the private and public sectors. In this regard, the payment needs of the nonbank public will ultimately best be met by private organizations, such as commercial banks. Payment services are an essential component of the deposit and money management services that banks offer to their customers, including both enterprises and individuals. As in other markets, competition in the market for payment services will ensure that the public has access to the best available services produced as efficiently as possible. Moreover, a variety of payment services will be offered from which the public can choose.

Public policy responsibility for the payment system usually rests with central banks. Central banks are naturally interested in the payment system because it is a key component of the operation of financial markets and has important implications for the trading efficiency of the real economy. Moreover, the payment system is one of the first

---

5This program was organized by the U.S. Federal Reserve with the cooperation of several other central banks, and sponsored by the International Monetary Fund and the Organization for Economic Cooperation and Development.
places where financial stress will manifest itself as firms in financial
difficulty fail to meet their payment obligations. Of particular concern
to central banks are clearing and settlement in financial markets
where trading results in large payment obligations, such as the securi-
ties, commodity, interbank funds, and foreign exchange markets. It
is in markets such as these that netting is often employed and that
systemic risk is greatest. Indeed, multilateral netting is being widely
employed by the regional financial exchanges and clearinghouses
springing up in many regions throughout Russia.

The central bank will also participate in the payment system as a
provider of interbank payment services. The stage of development of
a nation’s payment system will influence the extent to which the
central bank needs to play a role in operating the interbank payment
system. In the early stages of a market-based payment system, which
is the situation in Russia today, it is necessary that the Central Bank of
Russia play an active operating role. This is because the central bank
has a functional network of offices and processing facilities in place
that can tie the national economy together. The Central Bank of
Russia also holds accounts for all commercial banks, which can be
used for interbank settlement. In this manner, the Central Bank of
Russia performs some of the functions of clearinghouses.

An active role by central banks in the operation of the payment
system should be undertaken in a manner that does not restrict
potential competition and that allows for the possibility of turning
over operations to the private sector. Along these lines, there are
important benefits from pricing the payment services that central
banks provide to the banking industry. Prices for payment services
should be set to recover at least the full cost of production of these
services. Competition for interbank payment services will then be
encouraged, or at least not discouraged, and efficiency and innova-
tion will be stimulated. Moreover, because the users of services will
have to pay fees based on the cost of production, these services will
be used more wisely and will not be wasted. Overuse of a “free
good” is a natural consequence of the subsidy provided by offering
services without charging a fee.

As is the pattern in most former command economies, every branch of every bank
holds an account with the central bank. An early priority in Russia is to introduce a
streamlined accounting relationship between the Central Bank and the commercial
banks, whereby the commercial banks assume greater responsibility for reserves and
liquidity management and consolidate their account relationships with the Central
Bank of Russia.
The Central Bank of Russia has recently formed a steering committee on the payment system with representatives of both the Central Bank and the commercial banking system. Advisors to the Central Bank from official institutions, such as the International Monetary Fund, the World Bank, and cooperating central banks will participate in the work of the steering committee. The primary role of the steering committee will be to evaluate major reform initiatives in the Russian payment system to encourage and coordinate worthwhile initiatives. Formation of this steering committee, which began its work officially in the summer of 1993, is a potentially major positive development that will help rationalize the collective efforts of Russia's public and private sectors in achieving reform of the payment system.

As the transition to a market economy progresses in Russia, the operation of the interbank payment system might be organized by commercial banks themselves, through clearinghouses. Clearinghouses are a very important part of a national payment system and should be encouraged to the extent that they adhere to prudential standards of operation. As part of their coordinating role, clearinghouses can develop, propagate, and enforce rules and technical standards for handling payments. A legitimate concern of the central bank, however, is that private consortia of banks not be allowed to turn clearinghouses into exclusive clubs that unnecessarily restrict participation by potential members that meet financial and operational entrance standards. In short, it is not desirable to allow the development of de facto monopolies under the guise of clearinghouses.

The central bank also has a clear supervisory role in the payment system, including supervision of clearinghouses, because the stability of the financial system depends, in part, on the integrity of the payment system. One of the most important central bank oversight functions is to ensure that private participants employ proper measures to protect themselves against payment system risks, especially the risks that arise through participation in exchanges and clearinghouses that use multilateral netting.

**Large-Ruble Transfer Systems**

With respect to wholesale payments, commonly referred to as large-value payments, the heart of the banking system in an advanced market economy is its large-value transfer system. The large-value transfer system should provide same-day settlement with finality. Such a system, if properly designed, can increase payment system efficiency and greatly reduce payment system risk.
A same-day settlement system with finality for ruble payments will encourage the development of money markets and contribute to the Central Bank of Russia's ability to perform its monetary control function. By allowing large blocks of money to be transferred reliably and safely on the same day in response to the demand for and supply of liquid assets, liquidity will be readily transferred from surplus to deficit enterprises. In this manner, trading of short-term, liquid funds, probably centered in the interbank market, will develop to help ease the working capital shortages that enterprises face.

Markets for short-term funds exist in Russia today in rudimentary form on some organized exchanges but especially in the over-the-counter market. Limitations on interbank settlement, however, have stunted the development of these markets. For example, minimum maturities for interbank funds and large corporate deposits are measured in weeks, because it may take several days or more to settle a transaction using traditional payment methods when the counterparties are located in the same city. This settlement delay is much larger, and the timing of settlement more uncertain, when the counterparties are located in different regions.

With a same-day settlement system, participants in the interbank funds and corporate deposit markets will be able to shorten the time gap between trading and settlement, providing a foundation for the development of new types of money market instruments that require speedier settlement. Final same-day settlement will also contribute to the development of a securities market, including the market for government securities, by providing an assured method of payment for securities transfers.

An active interbank funds market in Russia will be the primary vehicle used by banks to manage their reserves held with the Central Bank of Russia. Equilibrium between the supply of and demand for bank reserves will be governed by the price of the reserves that banks lend to and buy from each other. This price will be a short-term, probably overnight, interest rate set in the market for bank reserves. This overnight rate on interbank funds will be an important monetary policy indicator to the Central Bank of Russia, revealing how loose or tight the market is for reserves. Combined with the development of a government securities market, an overnight interbank funds market will greatly enhance the effectiveness of new monetary policy tools of the Central Bank of Russia. By buying (selling) government securities, the Central Bank of Russia will be able to add (withdraw) reserves to the banking system, and the effects of its actions will be visible through changes in the overnight rate in the market for interbank funds, which, in turn, will influence other interest rates. The
market for interbank reserves will ensure that the overall supply of reserves is allocated to the banks needing reserves, and thus the effects of purchases and sales of securities will be more predictable. The development of the interbank funds and government securities markets, however, is possible only if a large-ruble transfer system is introduced.

The large-ruble transfer system should be operated by the Central Bank of Russia. It should be a gross settlement system and operate in what computer experts call “real time.” Because settlement is gross, that is, payment-by-payment, counterparty credit risk can be assessed directly and final settlement for large numbers of underlying payments need not be delayed owing to concerns about the ability of one institution to meet its obligation, which is a risk in netting schemes.

A central bank gross settlement system operating in real time minimizes the time delay between the initiation of a payment and its final settlement. Of course, the Central Bank of Russia would take on a large burden in operating such a system, as it would guarantee the finality of all payments it agrees to settle. The Central Bank of Russia must be exceedingly careful, therefore, to define and build the operational controls that allow it to manage its credit risk vis-à-vis the users of the large-ruble transfer system.

**Development of the Russian Payment System**

Payment system development can be explained as consisting of four stages. These stages, which represent different ways to carry out a transaction or market exchange, are (1) barter; (2) cash (physical money); (3) deposit money; and (4) deposit money combined with a credit system. Russia is somewhere between stages two and three—between cash and deposit money. There are, however, clear signs of falling back to stage one—barter. Barter is especially evident in transactions involving firms in different states of the former Soviet Union. Settlement for these cross-border transactions has become more difficult as the ruble zone dissolves and the new countries adopt their own currencies, which are nonconvertible.

---


8 Recent advances in computing and communications technology have significantly reduced the cost barriers to the establishment of real-time computer systems. The skills necessary to apply these techniques in the Russian banking system are readily available in Russia today.
The performance of any payment system that is based upon a monetary unit, whether that unit is in the form of cash or deposit money, depends critically on the public's acceptance of the monetary unit. In periods of high inflation, the value the public attaches to money diminishes, to the point where money loses its usefulness as a store of value and medium of exchange. In these circumstances, public preferences would shift to a more primitive system, based on barter, or a system based on use of foreign currencies. High inflation undermines the public's confidence in a nation's money and leads to use of barter or foreign currency.

An efficient payment system was not important in Russia under state socialism and the old monobank system. Production and the physical flow of goods between enterprises were governed by the state plan. The financial component of the physical flow was simply a record-keeping procedure determined by the product of planned physical units times their respective administered prices. Within the parameters of the physical plan, credit was automatic and payments were assured through the Gosbank. Because of this, enterprises did not need to have a speedy payment system, nor was it necessary to assess the creditworthiness of other enterprises to which goods were sent or from which goods were received.

The Russian payment system at the time of emergence from state socialism was technologically underdeveloped and did not have the institutions and institutional relationships that could respond to the needs of a market economy. In a market economy, the payment system must respond to complex economic relationships in which time is critical. Moreover, the providers of payment services, especially commercial banks, must be prepared to manage the credit risk that arises in connection with meeting the payment needs of their clients. Likewise, the central bank must be prepared to manage its credit risk vis-à-vis the commercial banks to which it provides settlement services.

Three types of payment instruments are used in Russia today: cash, payment orders, and checks. The payment demand order, a debit payment instrument, was traditionally the most heavily used instrument for transferring funds among enterprises. Payment demand orders, however, were forbidden by the Central Bank of Russia beginning in July 1992, owing to the difficulty this instrument caused businesses in managing counterparty credit risk. The Central Bank of Russia, consistent with the prevailing view in market economies, evidently determined that debit instruments are inherently more risky than credit instruments, and for this reason has forbidden their use, at least for large-ruble interenterprise payments.
Almost all retail payments in Russia are made using cash. Although cash has many virtues as a payment instrument, its vulnerability to theft and counterfeiting, unsuitability for making payments over long distances, and awkwardness for large-value purchases, such as consumer durables, are serious drawbacks. Accordingly, Russian consumers need a more efficient payment instrument to supplement their use of cash.

Attempts have recently been made to encourage the use of checks in Russia. In 1992 particular emphasis was placed on the so-called Russia check, which was introduced in the form of a book that had a preauthorized ruble limit placed on each check and on the total number of all checks in the book. The Russia check was offered to the public by the commercial banking system but designed, and its introduction organized, by the Central Bank of Russia. These checks are prepaid and cannot be used for transactions over a certain value. The Russia check was designed to reduce bank overdrafts, which pose an especially great risk in Russia because of the long time it takes to collect a check.

Long collection times have led to serious abuses of the check in Russia. In particular, counterfeiting has proved to be a serious problem with the check, just as it can be a serious problem with cash. The Central Bank of Russia has responded to the rise in counterfeiting by placing severe restrictions on the use of the Russia check, including limitations restricting its use to local areas. Consequently, the Russia check has not succeeded in giving consumers and businesses an effective new payment vehicle.

Successful introduction of checks will require adoption of careful verification methods by those who accept checks for payment, including individuals, enterprises, and banks. For checks to become useful, it is imperative that collection times be shortened so that opportunities to commit fraud are limited. Moreover, the law and its enforcement should be strengthened, if necessary, to deter counterfeiting. Efforts are now under way to pilot a new checking scheme that is based on a carefully constructed set of rules that clearly sets out the rights and responsibilities of the users of checks and the allocation of financial risks among the users of checks. In addition, a speedy collection system based on check truncation is being used in the pilot. This pilot, which involves the Central Bank of Russia and a group of regional commercial banks with electronic data connections to the Central Bank, could provide a breakthrough in efforts to introduce an efficient noncash form of payment for broad use in the economy.
The economy of the former Soviet Union was highly decentralized and determined, to a large extent, by fiat, not by competitive markets. This is reflected in the wide geographic dispersion of the component elements of the manufacturing and assembly process for goods, creating a high degree of economic interdependence among regions of the country. These economic interdependencies remain even though the political structure has changed and several separate countries have emerged from the former Soviet Union. Although it is likely that these economic interdependencies will change over time in response to market forces, the current reality is that there are unusually high payment flows between and among the states of the former Soviet Union that reflect traditional economic patterns.

The foregoing discussion of the domestic payment situation in Russia generally applies also to the other states of the former U.S.S.R., as these nations until recently all functioned under the same monobanking regime. Many of the payment patterns that have been described also apply to interstate payments within these states. Now, however, special difficulties have arisen about the timeliness and reliability of interstate payments. The interstate payment difficulties are attributable not only to the physical operation of the payment apparatus, which needs improvement, but, in addition, to inefficiencies in interbank settlement, that is, the transfer of value among banks to achieve settlement for interstate payments.

A discussion of interbank settlement for interstate payments must take into account two factors. First, the Russian Federation has a structural surplus in its trade with the other republics of the former Soviet Union. Accordingly, over the long run, trade positions must come into balance or settlement for interstate payments between Russia and the other republics must be financed by sources outside the interrepublican trade matrix. Second, many of the countries that have emerged from the former Soviet Union have left, or are in the process of leaving, the ruble zone and are well on their way to adopting their own currencies. Ruble deposit money held with commercial banks located in these different countries no longer trades at parity. Accordingly, there is a de facto separation of most ruble currencies, which further complicates interbank settlement. In essence, payment and settlement for transactions between economic actors in the states of the former Soviet Union pose issues similar to those arising in connection with cross-border, multicurrency payment and settlement in other nations, including those with convertible currencies. An
important difference, of course, is that these republics' currencies are not convertible.

In January 1993, the heads of state of the majority of countries that are members of the Commonwealth of Independent States signed an agreement to form an Interstate Bank. At least initially, the primary function of the Interstate Bank will be to serve as a multilateral clearing and settlement organization for the central banks of the countries that are members. The monetary unit that will be used to settle payments through the Interstate Bank will be the Russian ruble. The central banks of the countries that are members of the Interstate Bank will hold deposits with it denominated in Russian rubles. Besides credit obtained directly from the Central Bank of Russia, which is the central bank of issue for the settlement currency, these deposit balances can be increased only by transfers among member countries (buying and selling of bank funds held on deposit at the Interstate Bank) or by purchasing Russian rubles in the foreign exchange market.

The Interstate Bank holds considerable potential to facilitate the efficiency of interstate payments through multilateral netting. At the same time, the mutualization of risk that arises in connection with any multilateral netting arrangement must be carefully managed. Further, clear arrangements must be set up by which the currencies of the member countries in the Interstate Bank can be converted into Russian rubles in the market.

The operation of the Interstate Bank will necessarily depend on efficient settlement facilities, that is, large-value transfer systems operated by the Central Bank of the Russian Federation and the central banks of the countries that are members of the Interstate Bank. The large-value transfer systems are needed for the settlement of foreign exchange deals involving the Russian ruble and other "soft" currencies in which trade is denominated and for which payment and settlement will ultimately occur through the Interstate Bank.

As currently envisioned, the Interstate Bank will support settlement only for payments channeled through the clearing systems operated by the central banks of the member countries of the Commonwealth of Independent States. In fact, however, "international" correspondent banking relationships are being established within the Commonwealth of Independent States, and in some cases these private arrangements account for a large share of cross-border payments. A pattern that appears to be emerging is trade taking place under official, or governmental, agreements to be settled through the central banking system with private trade being settled through the
commercial banking systems. At some point, the institutional benefits of an organized multilateral clearing and settlement arrangement, such as that supported by the Interstate Bank, should be opened to the commercial banking system.

Conclusions

The development of the payment system is a necessary part of the development of Russia's banking and financial markets, including the interbank funds and government securities markets. Payment system development is also necessary to support efficient trading in goods and services. Consequently, payment system development needs to be a high priority in Russia's transition to a market economy. Enhancing cross-border, multicurrency settlement involving the soft currencies of the states of the former Soviet Union through new, specialized institutions such as the Interstate Bank also warrants early attention.

Russia's current payment system is still based primarily on cash, and it has shown signs of moving to barter and use of foreign currencies. Increasing the operational efficiency of the current, paper-based payment apparatus and adopting accounting methods that reduce the drain on working capital resulting from the operation of the payment system are high priorities. Use of availability schedules and the formation of clearinghouses are straightforward ways to address these challenges. Finally, an electronic large-value transfer system based on real-time computer processing, operated by the Central Bank of Russia, will contribute substantially to the development of the markets for interbank funds and government securities and will enhance the Central Bank of Russia's ability to carry out monetary policy.

The methods for enhancing the Russian payment system described in this paper are well within the current technological and financial capabilities of the Russian banking system. A clear delineation of the roles of the private and public sectors will help stimulate these enhancements.
Comment
David B. Humphrey

The two papers, "Payment System Reform in Formerly Centrally Planned Economies" and "The Russian Payment System," are both concerned with the need to improve the operation of, and reduce the risk on, large-value payment systems in formerly centrally planned economies. To note only the most important aspects, improvement of domestic large-value payments in these countries is needed for efficient enterprise exchange, safe interbank payments, development of a liquid money market, mobilization of domestic savings, and improved monetary control.

The first paper by Folkerts-Landau, Garber, and Lane provides an excellent discussion and summary of the many complex issues associated with payment reform, the best I have seen in a single paper. The second paper by Summers focuses directly on the issue of payment reform in one country—Russia—and contains a rich discussion of the operational details of how large payments are actually made today in a formerly centrally planned economy. Overgeneralizing, it could be said that the first paper is essentially theoretical whereas the Summers paper is essentially practical, although both range over the same broad topics associated with payment reform.

Reform of large-value payment systems in formerly centrally planned economies involves a trade-off of "trust" (a willingness to extend credit) with "discipline" (the need to settle credit extensions in good funds). But trust creates moral hazard from credit extensions whereas discipline is associated with reducing systemic risk from a settlement failure.

Both papers ask an important question: What is the appropriate division of payment risk among (1) individual banks on a payment network, (2) all banks together on the network, and (3) the government or the central bank? Although it explicitly poses this question and notes many of the issues involved, the Folkerts-Landau paper does not provide an answer. And, although the Summers paper does provide an answer to the question, the logic is not spelled out. My task will be both to attempt to answer the question and to spell out the logic. In doing so, I shall note some specific areas where one or the other of the papers could usefully be clarified.

Three Types of Payment Finality

When large values are being transferred, it is absolutely essential that the parties to the transaction clearly understand when, and the
conditions under which, the transaction is final or cannot be reversed. In practice, there are a number of points at which a payment may or may not be final once funds are sent and the receiver is notified on a large-value payment network.

First, there is sender finality, where the sender cannot reverse the transaction once it has been made. All major large-value net or gross settlement networks have this type of payment finality. Second, there is settlement finality, which has been and still is an important, unresolved, and contentious issue on a number of existing large-value net settlement networks in Europe. Settlement finality seeks a method to "guarantee" that the movement of settlement funds will not be reversed and that the settlement will not be unwound and recalculated. Settlement finality can be guaranteed by the central banks, as is typical on a gross settlement network (such as Fedwire in the United States or the Swiss Interbank Payment System—SIC—in Switzerland) or by the posting of high-quality, liquid collateral that could be used to obtain funds necessary to cover the failure to settle by a participant on a net settlement network (such as CHIPS in the United States). While many large-value networks have settlement finality, others do not.

Last, there is receiver finality. Receiver finality exists when a receiving bank cannot take back funds received that customers are allowed to use either before or after settlement. No major network has receiver finality, largely because receiving banks do not wish to give up their right to attach funds received for a customer in one account to cover possible overdrafts of that same customer in a different account or to compensate the bank for a loan default by the customer.

"Guidelines" for Assigning Risk

The question posed above deals with the assignment of the risk of, and hence responsibility for, settlement failure on either a net settlement or a gross settlement large-value payment network. In this regard, it is useful to outline some guidelines for risk assignment applied in the insurance industry and found in case law. In general, liability should be borne by the party in the best position to (1) absorb, spread, and/or insure against the cost or risk of settlement failure; (2) detect, control, and prevent settlement failures; or (3) provide good funds for the payments being sent, thereby ensuring settlement. The first guideline is, in effect, a "deep pockets" approach to risk assignment. It would be unacceptable on a payment network because it implies that the ability to pay among sending bank, receiving bank, or central bank determines the liability for a settlement failure. Because
the party with the deep pockets may not also be the party that creates the risk, moral hazard is created. Such an approach to risk assignment therefore would increase the probability of a settlement failure, worsening the situation rather than improving it.

The second guideline is more reasonable in that the party best able to intervene and prevent a settlement failure is the party to which the liability would be assigned. In practice, this party is most likely the receiving bank. The receiving bank is in a good position both to assess the likelihood that the sending bank may fail to settle and, if this likelihood is deemed to be strong, to intervene by not releasing to the customer funds received before settlement. If the sending bank fails to settle, the receiving bank thus need not be placed in the illiquid position of having already released funds to the customer and be required either to retrieve these funds immediately or to find financing elsewhere to fund a settlement shortfall. Although seemingly reasonable, this guideline has not been the one most followed on payment networks: it places liability for a settlement failure on the party that did not cause the failure and so, like the first guideline, creates moral hazard.

The third guideline is the one typically applied on payment networks because it can address the moral hazard problem. Sending banks are typically required to pay for their net debits by obtaining covering funds (on SIC and BOJ-NET in Japan) or pay for central bank credit extended to cover their net debit (on Fedwire in 1994). The exception is CHIPS, where receiving banks provide collateral to cover a settlement failure. Receiving banks on CHIPS have made a credit judgment to receive funds—up to a real-time enforced bilateral net credit limit—from each of the other participants on the network.

In sum, sending banks have usually, but not always, been assigned the major responsibility for "guaranteeing" against a settlement failure. On some other large-value networks, where senders or receivers do not yet play this role, the central bank—by design or default—is assigned the risk of settlement failure, creating moral hazard.

Settlement Finality Versus Daylight Overdrafts

On a net settlement system, payment debits and credits are made against a zero balance account and so daylight overdrafts are an inherent operational problem on those networks with end-of-day settlement. If settlement is next day or next week, overnight overdrafts will exist as well. But even with daylight (or overnight) overdrafts, there are ways to ensure settlement finality.
On net settlement systems, there can be shared sender responsibility for a settlement failure, as currently exists on CHIPS. Participant banks on CHIPS post high-quality, liquid collateral with the central bank based on a pro rata share of each bank’s internally determined limit on intraday credit that it would be willing to extend to a sending bank. The total collateral posted is set so that it covers the largest net debit of any one participant. In addition, there is a ‘cap’ or maximum value established for each participant’s net debit. This net debit cap is enforced on a real-time basis so that the collateral posted on CHIPS would always be sufficient to cover the failure to settle of any one participant. This point is unclear in the Folkerts-Landau paper, which states ‘...in the event of a large failure to settle, [the posted collateral]... may provide CHIPS insufficient resources to settle, so its promised ‘settlement finality’ is not foolproof.’ What the authors mean to say is that in the event of multiple failures to settle on the same day—a very unlikely event—the posted collateral may or may not be sufficient, depending on the net debits of those participants who fail to settle. This is the only settlement risk that currently exists on CHIPS, and the consensus view has been that this remaining risk is acceptable considering the added costs of other settlement finality alternatives.

One alternative collateral arrangement that eliminates even the small remaining settlement risk on CHIPS would have required each sending bank to post collateral sufficient to cover its own net debit, and where the real-time net debit cap would be set equal to this posted collateral for each participant so it could not be exceeded. It was determined that the total posted collateral under this alternative would have been so large as to affect significantly the liquidity of the participant banks and reduce earnings. A large portion of the high-quality, liquid government security assets that could be used as CHIPS settlement collateral were already tied up as assets required to be pledged against state, local, and federal government deposits at participant banks. Thus only a portion of the government security assets on bank balance sheets were actually free to be used as CHIPS collateral. And, of that portion that was free, most of it was already used to collateralize overnight federal funds borrowings through repurchase agreements (repos).

Repos are a cheaper source of overnight borrowings than are standard federal funds because they provide collateral for the overnight loan. Thus, transferring the collateral used for repos to CHIPS would incur a yearly extra funding cost equal to the spread between the repo and the federal funds rate times the value of the collateral transferred. In addition, if this available collateral was less than needed, partici-
pant banks would have to reduce either government deposits (freeing up collateral that could be shifted to CHIPS) or future lending to business (to purchase more securities to be used as CHIPS collateral). In either case, earnings would have fallen. Government deposits are a cheaper source of funds than are the purchased funds that would replace them, and business loans, even after adjusting for the risk of loan losses, earn a higher return if only because their longer maturity is associated with a historically upward-sloping yield curve. For these reasons, it was cost effective to reduce the CHIPS collateral requirement from that of covering the sum of all participant net debits to the level that would cover the largest possible net debit of a single participant.

On a gross settlement system the central bank typically provides for settlement finality. If reserve or clearing balances are insufficient during the day, payments are still made over Fedwire with the central bank providing the daylight credit necessary to transfer the funds and simultaneously guarantee the settlement. The cost of providing settlement finality here will involve (in 1994) a price for the total value of central bank daylight credit provided, which is the sum of all bank net debits, rather than a price applied against only the largest net debit of a single participant. In this sense, pricing daylight overdrafts is very similar in concept to having all network participants provide collateral for their own net debits, a solution seen to be more expensive than the shared posting of collateral on CHIPS.

Finally, on the SIC gross settlement system, reserve or clearing balances are always sufficient to effect settlement, otherwise the payment is not made. The cost of an SIC system appears to be the opportunity cost of holding idle reserve or clearing balances, a cost which, if only an overnight funds market exists, equals the overnight funds rate and is therefore quite high.

Fortunately, cheaper alternatives exist, and I will note three of them. First, payments can be netted outside a payment network with the underlying payment instrument acting as collateral for the transaction. This approach has been taken for settlement of bankers' acceptances and commercial paper in the United States (and may later be applied to bank certificates of deposit). Second, payments for future delivery of, say, foreign exchange can be netted by contract novation so that only the net amount due at the settlement date is transferred over a large-value payment network rather than the sum of all the previous gross positions. These types of "institutional adjustments," along with others of a similarly creative nature, reduce substantially the need to purchase priced central bank daylight credit or to hold idle balances for clearing purposes. They also serve to
reduce the realized cost of settlement finality for banks on these networks.

Third, partial payments may be instituted when a given single payment would be so large as to be rejected on SIC (owing to insufficient balances) or would lead to use of priced daylight credit on Fedwire. Partial payments are, in certain instances, already being used on SIC. Partial payments save costs by reducing the level of idle balances needed to make payments on SIC and, at the same time, reduce the probability of a payments "gridlock" associated with holding lower balances. Such an arrangement requires some added expense for reconciling payment flows to determine when the entire payment has been received, however. But this expense is not large and already exists for government security transfers on Fedwire where partial delivery of securities against payment has for some time been required (to reduce the cost of securities failures), and the maximum limit on a securities transfer is $50 million. Such developments could usefully be noted in the Folkerts-Landau paper, which focuses on the possibility of a payments gridlock on SIC, or on Fedwire with binding net debit caps, and does not mention that the gridlock issue is already being dealt with effectively.

**Settlement Finality in Formerly Centrally Planned Economies**

The above discussion makes reasonably obvious the choice of how best to implement settlement finality in formerly centrally planned economies. As noted, on net settlement systems such as CHIPS, daylight overdrafts are inherent, but the systemic risk of a settlement failure can be "controlled" by the posting of high-quality, liquid collateral. The CHIPS solution has the lowest cost because it conserves the need for collateral, compared with an arrangement where each sending bank posts collateral sufficient to cover its own net debit. However, three factors argue against the use of the CHIPS solution for formerly centrally planned economies.

First, there is a severe lack of high-quality, liquid collateral in these economies that can be used to guarantee settlement finality on a net settlement system. Second, the CHIPS solution requires receiving banks to be able carefully and accurately to determine the credit risk involved in receiving funds from other network participants. At present, both the information and the credit assessment ability needed for this are severely constrained. Third, the shared posting of collateral to cover the maximum net debit of any network participant, while con-
serving the need for collateral, still contains systemic risk in the event of multiple failures to settle on the same day. Although this residual risk is judged to be exceedingly small for banks on CHIPS, it would not be so judged for banks in formerly centrally planned economies. For these reasons, the CHIPS solution and the alternative arrangement of each sending bank posting collateral sufficient to cover its own net debit are both likely to be unworkable until a sufficiently large, sophisticated, and liquid money market arises in these countries.

This leaves a gross settlement system for large-value payments in formerly centrally planned economies. This is the same conclusion reached in the Summers paper, probably for the same reasons. Summers, however, seems to favor a Fedwire type of solution, as he talks about a gross settlement system run by the Russian central bank with finality and "... operational controls that allow it to manage its credit risk [or overdrafts]." In my view, Fedwire may not be a useful model. Overdrafts should not be free, and the provision of priced central bank credit is unlikely to lead to the types of low-cost institutional changes in payment practices envisioned in the United States. It has been determined that institutional change in the operation of the interbank federal funds market could virtually eliminate daylight overdrafts, and hence central bank risk, on Fedwire. Pricing daylight credit is expected to lead to such overdraft-reducing behavior as the substitution of term for overnight federal funds and the use of continuing contracts and rollovers in place of one-day funds. The possibility also exists of netting using contract novation for multiple gross flows outside a payment network, to be settled by a single net transfer over Fedwire. These and other responses to pricing require a sophisticated money market, a precondition not met in formerly centrally planned economies.

For these reasons, the most workable outcome consistent with minimizing systemic and central bank risk is likely to be a gross settlement system similar to that of SIC. The potential problem of payments gridlock, as noted earlier, can be addressed using a system of standardized partial payments and should not therefore pose a practical problem and, in any event, would allow lower reserve or clearing balances to be held than would otherwise be necessary. In the longer run, as solvency information on banks in these economies becomes more accurate, credit assessment abilities improve, and sophisticated money markets develop, these countries can consider potentially lower-cost collateral arrangements similar to those that now exist on CHIPS.
PART III

Creating a Sound Financial Structure
The Role of Financial Institutions in the Transition to a Market Economy

Hans J. Blommestein and Michael G. Spencer

Policymakers in the formerly centrally planned economies face the formidable task of creating functioning market economies in environments in which market mechanisms have been suppressed for decades. In this task policymakers face a conflicting set of objectives: although the transformation toward a market economy implies that the government should withdraw from its dominant role in the economy, a multitude of new tasks exists for which government action is needed. The development of a market-based financial system is such a task. These economies already possess significant concentrations of specialized productive capacity for which the kinds of informal sources of finance that characterized early capitalist development in the developed market economies are insufficient. Yet they lack most of the important institutions of market economies: competitive markets for most factors, goods, and services; a well-capitalized and competitive financial system; and the legal and regulatory framework to safeguard the financial system.

This paper analyzes the role of different financial institutions—banks, capital markets, and investment funds—in the transformation from a planned economy to a market economy. It has been generally agreed that essential elements of this transformation are price liberalization and the privatization of a significant proportion of the existing productive capacity. While some progress has been made on the first front, privatization has proceeded very slowly in most of

1 The views expressed in this paper are those of the authors alone and do not necessarily represent those of the Organization for Economic Cooperation and Development or the International Monetary Fund.
the economies in transition. However, for privatization to succeed at all in improving enterprises' efficiency, the system of central control over enterprise management must be replaced by another mechanism that not only provides managers with the resources they need to finance restructuring but also gives them the incentives to respond to market prices in the most efficient manner feasible. Market-based financial institutions play a key role in achieving these objectives.

The financial system inherited from the system of central planning is in a poor state. The banking systems in most of the formerly centrally planned economies are plagued by low capital, large stocks of nonperforming loans to state enterprises, loan portfolios that are concentrated both geographically and sectorally, small branch networks for other than the savings banks, and managers that have little experience in appraising loan applications and in measuring and managing risks. Equity and bond markets are either nonexistent or extremely small and illiquid, and both the small- and large-value payment systems are incomplete and inefficient. In this environment, payments are frequently made on a cash or barter basis and firms have created extensive networks of interenterprise credits. Yet the process of transformation from central planning to a market system, and especially the privatization of state enterprises, will place tremendous demands on the financial system.

Given this environment, we attempt in the paper to identify the priorities for financial sector reform. One approach argues that the structural problems in the banking sector are so serious that they cannot soon be resolved and that the authorities should therefore first concentrate on developing the nonbank financial sector. In an extreme exposition of this view, McKinnon (1992) argues that banks should be prohibited from lending to privatized firms in the early stage of the transformation and should be allowed to make only fully collateralized short-term lending in the later stage. Other writers similarly argue that the introduction of a secondary market for equity cannot wait for the completion of the restructuring of the banking sector. In contrast, Brainard (1990), for example, argues that reforms should begin with the commercial banking sector. Corbett and Mayer (1991) and Saunders and Walter (1992), among others, go even further to argue that reforms should be based on the principle of creating a bank-dominated system following the models of continental Europe or Japan.

This paper argues that the highest priority must be given to the restructuring and privatization of the banking sector. In market economies, banks are the principal source of firms' short-term working
capital and provide highly liquid investments in which firms can store receipts. They are also the principal source of human capital trained in evaluating credit risk and therefore provide the basis for ensuring an efficient allocation of financial resources. This financial efficiency is translated directly into improved efficiency in production and therefore in welfare generally.

The structure of financial markets also argues strongly for giving priority to banking reform. Banks' access to "good funds" from the central bank provides liquidity that maintains confidence in the payment system, which in turn facilitates trade in commodities and in financial assets. Moreover, the readiness to provide liquidity as a "lender of first resort" to other financial institutions, including securities firms and private clearinghouses, places banks at the heart of the financial system.

However, the primacy of ensuring the health of the banking sector does not imply that the development of securities markets, for example, is of little significance. The development of government securities markets is an important consideration in economies in transition with high budget deficits and is also important from the point of view of promoting money markets. In addition, the initial allocation of assets arising from privatization may not coincide with the desired distribution—particularly from the point of view of corporate control. Secondary markets for equity provide a way for individuals' holdings of shares to be reallocated and their demand for liquidity satisfied. More fundamentally, true privatization—the transfer of ownership and management of firms from the public to the private sector, leading to effective private control of the businesses—can only be said to have occurred if shares in firms can be treated as private property to be bought and sold at will. But in the environment of great uncertainty that characterizes transition, equity markets cannot be expected to provide significant sources of new capital. More important, securities markets rely heavily on banks as participants and as providers of liquidity to function efficiently. Therefore, even the secondary markets will be hampered if the banking system has not first been thoroughly restructured.

Therefore, assuming government resources and expertise are not unlimited, the first priority for action must be the restructuring of the banking system. Banks must be relieved of their inherited asset problems.

---

2 Bank lending is not completely efficient, however. Informational asymmetries between banks and potential lenders can result in credit rationing. However, these kinds of inefficiencies are endemic to the financial system and are generally just as problematic for nonbank financial intermediaries.
lems, recapitalized, and provided with incentives to operate as profit-oriented, competitive institutions. Considerable resources must be devoted to the training of bank personnel and the installation of accurate accounting, risk evaluation, and management practices. Other important priorities are the establishment of an efficient large-value payment system and the implementation of effective banking regulation and supervisory regimes. It should be recognized from the outset that these tasks will be time-consuming. Although secondary markets for debt and equity should not be repressed, neither should their development be considered a priority. The authorities' role in the early development of the nonbank financial sectors should be confined to establishing the legislative and regulatory conditions for their operation.

These considerations set, in broad terms, the agenda for financial sector reform in the formerly centrally planned economies and the role of a market-based financial system in the transformation process. However, an active institution-building role by the government does not mean that it is possible or desirable to construct an "optimal" set of market institutions and rules. In market economies, financial institutions reflect largely the needs of the private sector, which differ across countries and change over time; this implies that there is no unique blueprint that can be transplanted to the economies in transition. It is the role of the public authorities to lay out clearly the principles and rules governing the safe and efficient operation of the financial system and to enforce these rules.

The next section discusses the role of the banking sector in allocating financial resources and in supporting securities markets. The following section outlines the corporate control function of the financial system, which is largely missing in the economies in transition and which is essential to the creation of a market-based system. The role of banks and capital markets in providing a market-based system of corporate governance is also discussed. Then the potential contributions of universal banks, capital markets, and hybrid investment funds are evaluated and recent developments in formerly centrally planned economies—Poland, Hungary, and the Czech and Slovak Republics—are discussed and related to the previous discussion. The final section briefly sums up.

**Role of the Banking Sector**

One of the core challenges facing the formerly centrally planned economies is the decentralization of financial resource allocation.
Indeed, part of the economic motivation for the transformation to a market system in the first place has been the recognition that central planning did not result in an efficient allocation of capital and that physical resources were therefore not directed to their most productive uses. The essence of the market in this respect is that it minimizes the extent to which noneconomic factors influence the allocation of resources, and thereby improves such allocation as well as, ultimately, the productivity of investment.

The central issue to be decided is what will replace the planning mechanism in the intermediation between economic units with surplus financial resources and those with insufficient capital to finance their investments. In the industrial market economies, this intermediation has traditionally been dominated by the banking sector. Competition with other banks and with nonbank intermediaries forces banks to develop expertise in credit risk evaluation and in the identification of the most profitable investments. In doing this, they acquire valuable information about borrowers and lenders alike, which allows them to identify the most profitable investments. In recent years in certain industrial countries the dominance of banks as financial intermediaries has been reduced somewhat with the emergence of nonbank intermediaries and the further development of corporate debt markets, which give firms direct access to individual savings. However, the development of these institutions and markets depended to a considerable degree on the expertise and practices—credit risk measurement for example—developed by the banks. Moreover, in these economies, the financing of smaller enterprises—which dominate most economies

---

3 However, the most important source of finance has historically been retained earnings rather than external finance. Of the external sources of finance—loans, equity, and bonds—bank loans have generally been the most important. Even though Taggart (1985) provides evidence that in the United States internal funds appear to account for a smaller proportion of total financing today compared with earlier decades this century, this proportion remains above 50 percent. The share of financing accounted for by stock issues has also declined, from 19 percent in the 1930s and 1940s to 5 percent of less in the postwar period. Mayer (1989) provides evidence that bank loans accounted for at least 40 percent of gross financing of nonfinancial enterprises in France, Italy, and Japan, and over 20 percent in Germany, the United Kingdom, and the United States during 1970-85. Bonds, equity, and other short-term securities contributed less than 13 percent of gross financing over this period in all of these countries. Retained earnings accounted for at least 30 percent—more than 65 percent in the United Kingdom and the United States—of gross financing. On the other hand, Singh and Hamid (1992) find that large corporations in developing countries rely on retained earnings to a considerably lesser extent—and on equity issues to a considerably greater extent—than is apparently true for industrial country firms, although there may be a firm size bias in their data.
in terms of their contribution to employment and output—is still generally performed by banking institutions.

Although it is not necessary for the formerly centrally planned economies to repeat the historical development of financial markets elsewhere, it is nonetheless true that securitization and nonbank institutions are unlikely to compete strongly with the banking sector in these countries during the transformation period. For the most part, the population is inexperienced in making the kinds of financial decisions required of direct financing of enterprises. Nor does the judicial system yet have experience in adjudicating financial conflicts that may arise between bond holders and debtor enterprises. For example, most of the economies in transition (except Poland, which has recently prepared draft legislation on secured lending) still lack laws on securitized lending, which provide for a central registry of collateral and protection of creditors' claims on pledged assets. In addition, insurance and pension funds, often the most important nonbank financial institutions, are relatively small in these economies and need restructuring. While steps should certainly be taken toward making these funds fully funded and freeing up their investment opportunities, they are unlikely to provide a significant source of capital in the immediate future. One important class of nonbank financial institutions is the investment funds that have emerged in the Czech and Slovak Republics, for example, out of their voucher privatization programs. These are discussed below.

Moreover, the economies in transition have underdeveloped payment systems—both retail and large-value systems—which are generally provided by banks. The improvement in these systems is an important objective in the overall restructuring of the financial system. However, to provide security in these systems, it is important to ensure that the participants are creditworthy—that is, that the banks that have access to these systems are well capitalized and have portfolios that are not excessively risky. Indeed, one of the motivations for bank regulation is the protection of the payment system.

However, the development of a competitive banking sector in the economies in transition is fraught with many structural obstacles.

---

4 See Folkerts-Landau, Garber, and Lane (1994) for a discussion of payment system reform in formerly centrally planned economies.

5 The creation of a perfectly competitive banking system is, of course, not the objective. Because of banks' importance to the real economy and because the failure of a large bank can have consequences for the rest of the financial system and the real economy, and because in many jurisdictions bank deposits are insured by governments, in no country are banks subject to perfect competition. Capital and liquidity
The most immediate problem is that many of the employees of state-owned banks have little or no experience in judging the creditworthiness of loan applicants or of measuring the credit risk to which the bank is exposed. Therefore they lack the basic expertise needed by a market-oriented commercial bank. In addition, these banks are frequently highly segregated geographically and, except for the traditional savings banks, have limited branch networks. Moreover, under central planning, banks did not have to compete for deposits or in the market for loans and so have little experience in marketing or in pricing their products.

**Bank Recapitalization and Privatization**

The characteristic of banks in the formerly centrally planned economies that has attracted the most attention—probably rightly so—is the nature of their portfolios. As a consequence of the banks' regional focus, their loan portfolios are frequently concentrated geographically or by industry, resulting in overexposure to the risk of relative economic decline in a given region or sector. In addition, their balance sheets often reflect very specialized activities that they were given under the previous regime. For example, it is common for a country in transition to have a savings bank and a development bank and perhaps sector-specific banks servicing, for example, agriculture or housing (see Table 1). Consequently, for example, the savings bank's liabilities may be dominated by retail deposits, and its assets may be dominated by loans to other banks, which would be the primary source of funds for the latter institutions.

Perhaps the most serious obstacle to the efficient functioning of the banking system is the "bad loans" problem (see Table 2). Many banks have large stocks of nonperforming loans outstanding to state-owned enterprises. For example, as much as 26 percent of the assets of the banking sector in Poland were thought to be nonperforming in 1992, whereas for the former Czechoslovakia and Hungary the corresponding estimates were 21 percent and 11 percent, respectively.\(^6\) The proportion of bad loans is highest in the state-owned banks. Undercapitalized banks with large exposures to virtually bankrupt large enterprises may be inclined to roll over outstanding loans and to capi-

---

\(^6\)In May 1993, 19 percent of the assets of all banks in Poland were reported to be nonperforming.
Table 1. Structure of the Banking System in Selected Central European Countries

<table>
<thead>
<tr>
<th></th>
<th>Former Czechoslovakia</th>
<th>Hungary</th>
<th>Poland</th>
<th>Bulgaria</th>
<th>Romania</th>
</tr>
</thead>
<tbody>
<tr>
<td>State-owned commercial banks</td>
<td>2</td>
<td>4</td>
<td>9</td>
<td>59</td>
<td>4</td>
</tr>
<tr>
<td>State-owned foreign exchange banks</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>State-owned savings banks</td>
<td>2</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other state-owned, specialized banks</td>
<td>1</td>
<td>11</td>
<td>3</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Private sector banks (of which: have foreign stake)</td>
<td>43 (18)</td>
<td>38 (15)</td>
<td>72 (7)</td>
<td>7 (3)</td>
<td>9 (5)</td>
</tr>
</tbody>
</table>

Sources: Official government reports and documents.
1Number at time of creation of two-tier banking system.
2Excluding savings cooperatives.
3Most recent data: number excludes representative offices. For former Czechoslovakia includes five privatized banks.
italize interest rather than force enterprises into bankruptcy or restructuring. The assumption that loans to state-owned enterprises are backed by the state relieves banks of the need to consider the creditworthiness of their clients. This moral hazard problem undermines the banks' ability to provide an objective assessment of corporate profitability and to ensure that resources are distributed efficiently and argues in favor of a thorough restructuring and recapitalization of the banks.

While there are a variety of options for relieving the banks of these nonperforming loans, they generally include some form of conditional "bailout" or other use of government funds to recapitalize the banks. At the same time, the restructuring of bank portfolios to relieve their exposure to nonperforming loans can be used to correct any structural imbalance in the geographical or sectoral composition of their portfolios. The key to a successful bank recapitalization is that it is accompanied by credible measures to ensure that, once relieved of their bad assets, banks shift toward commercial lending behavior based on risk-return criteria. This means that solutions to the bad assets problem that rely on explicit or implicit guarantees to the banks (and enterprises) that their future losses on nonperforming loans to enterprises will be covered by the state budget are to be avoided or terminated. Cleaning up bank portfolios without changing the incentive structure in which they operate will impede banks' conversion to behaving as market-based entities and will allow the bad debt problem to resurface quickly.

There are two main approaches to the financial restructuring of the banks, which have different implications for the corporate governance function of the banks in the initial stage of the privatization of the real sector (see Table 2). The decentralized approach—adopted in Poland—relies on the banks themselves to manage the debt restructuring, usually by creating a separate loan workout department. Consequently, the banking sector would be given a central role in the restructuring of state-owned enterprises. The danger in this approach lies in the relatively weak position of the banks. While they may have the power to force firms into bankruptcy if they cannot reach agreement on how to restructure the firm and its finances, as happens in the Polish scheme, they may also have the same incentive as under the previous regime to continue lending to these firms in the hope that they can "grow out" of the problem. Moreover, this approach requires banks to devote significant amounts of human capital to

---

7 For a discussion of how to resolve the bad loans problem, see Fries and Lane (1994).
Table 2. Balance Sheet Restructuring and Bank Privatization in Selected Central European Countries

<table>
<thead>
<tr>
<th>Loan classification</th>
<th>Former Czechoslovakia</th>
<th>Hungary</th>
<th>Poland</th>
<th>Bulgaria</th>
<th>Romania</th>
</tr>
</thead>
</table>

| Required loan loss reserves | | | |
|-----------------------------|----------------|----------------|------------------|------------------|
| Substandard—20 percent | Substandard—20 percent | Substandard—20 percent | Determined by the central bank | |
| Suspicious—50 percent | Doubtful—50 percent | Doubtful—50 percent | | |
| Nonperforming—100 percent | Bad—100 percent | Loss—100 percent | | |

| Incentives for loan loss reserve creation | | | |
|------------------------------------------|----------------|--------|--------------------|------------------|
| Two percent of average medium- and long-term credit and 10 percent of overdue credits can be deducted from gross profit | Loan-loss reserve creation from pre-tax profits | Reserves can be set aside from pre-tax profits only for loans which can be proved to be non-recoverable | Banks can set aside a maximum of 30 percent of pre-tax profits to cover principal, but there is no ceiling on reserves set aside to cover capitalized interest | |

| Amount of problem assets (local currency) | | | |
|------------------------------------------|----------------|--------|--------------------|------------------|
| Suspicious—Kčs 55 billion (1992) | Bad—Ft 125 billion (1992) | | | |
| Substandard—Ft 50 billion (1992) | | | | |

<p>| | | | | Leu 122 billion (end-1990) | | | | | | |</p>
<table>
<thead>
<tr>
<th>Problem assets in</th>
<th>(a) all banks: 21 percent (1992)</th>
<th>(a) all banks 11 percent (1992)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) state-owned banks (in percent of total)</td>
<td>(b) four largest state-owned banks: 15 percent (1992)</td>
<td>(b) nine state-owned commercial banks: 30–60 percent (1992)</td>
</tr>
</tbody>
</table>

| Kčs 110 billion of revolving inventory loans (pre-1990) transferred to newly established state-owned Consolidation Bank in 1991 along with some associated bank liabilities | Government guaranteed Ft 10.5 billion pre-1987 enterprise debt (1991); restricted dividend policy (1991–92); Ft 102.4 billion in bad assets (loans that were 360 days past due, or loans made to bankrupt or liquidated companies) were transferred to newly established state-owned fund, Hungarian Investment and Development Co. (HID) in March 1993 | Doubtful and loss assets are transferred to separate workout units in each bank. The Law on Mutual Settlement of Debt provides for a secondary market for loans, and for debt-equity swaps (effective 1993) |

| Government guaranteed the principal and interest payments on all nonperforming pre-1991 loans to state-owned enterprises plus interest capitalized since end-1990 | Corporate debt: lei 280 billion written off against government deposits in banks (1990); lei 125 billion refinanced by central bank (1990); lei 135 billion (pre-1990 debt) written off (1991); agricultural debt: lei 65 billion of 1984–88 debt written off against government deposits (1990); lei 111 billion (1989–90 debt) written off (1992) |
Recapitalization of state-owned banks

<table>
<thead>
<tr>
<th>Former Czechoslovakia</th>
<th>Hungary</th>
<th>Poland</th>
<th>Bulgaria</th>
<th>Romania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kčs 50 billion of five-year state bonds carrying market interest rates transferred to banks in conjunction with loan transfers to Consolidation Bank (1991)</td>
<td>HUF issued Ft 82 billion in 20-year bonds with interest rate linked to 90-day treasury bill rate to banks in conjunction with asset transfer covering 50 percent of pre-1992 bad assets, 80 percent of 1992 bad assets, and 100 percent of claims on state-owned enterprises named by the State Property Agency (1993)</td>
<td>The Law on Financial Restructuring of Enterprises and Banks (March 1993) proposes to recapitalize banks by issuing zloty-denominated Treasury bonds redeemed with funds from the Polish Bank Recapitalization Fund, which was recently converted from the $1 billion exchange stabilization fund established in 1990. To be eligible for recapitalization the bank must: (1) obtain a financial audit; (2) isolate nonperforming loans in a workout department; (3) submit a</td>
<td>BGN 5 billion (the maximum allowable annually) in state bonds carrying an interest rate of one-third of the base rate transferred to banks in conjunction with write-off of nonperforming assets (1992)</td>
<td>Government provided lei 95 billion in capital transfer (1991–92)</td>
</tr>
</tbody>
</table>
### Bank privatization strategy

<table>
<thead>
<tr>
<th>Banks privatized</th>
<th>Target ownership structure: foreign = 25 percent, state = 25 percent, portfolio investors = 50 percent by end-1996</th>
<th>For the nine state-owned commercial banks the target ownership structure is foreign investors = 20-25 percent, state = 30 percent, employees = 10 percent, portfolio investors = 35-40 percent. For other state-owned banks privatization is on a case-by-case basis</th>
<th>Consolidation of 58 small banks into 6 large banks in 1992-93; privatization expected to begin in 1994</th>
<th>All banks except Savings Bank included in mass privatization (1992); state retains 70 percent stake through State Ownership Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Source: Official government reports and documents; The Hungarian Economy; Central European; Clifton and Khan (1993). |
correcting problems inherited from the past rather than to improving current lending practices.

In contrast, a centralized approach essentially relies on the transfer or sale of bad assets to a central entity, generally a government-sponsored institution created specifically for this purpose. Usually, a portion of the bank's liabilities would also be transferred to this institution. This approach envisages a role for the banks only after the financial restructuring—and possibly privatization—of the state-owned enterprises, to avoid a situation in which banks continue lending to insolvent state-owned enterprises whose debts are thought to be guaranteed by the state. Moreover, the decoupling of bank reform and enterprise restructuring will help banks put their once subservient relations with state-owned enterprises on a sound commercial footing. This suggests that bank recapitalization and restructuring should precede enterprise restructuring. Not only would this help prevent a recurrence of the bad loans problem, but placing bank lending on a firm commercial basis would also support the imposition of a hard budget constraint on state-owned enterprises. The newly restructured and recapitalized banks are in a position of strength vis-à-vis enterprises that are to be, or have been, privatized, in that they can impose financial discipline. In other words, the capacity to influence management has increased; for example, it would now be easier for banks to refuse new loans to enterprises that show insufficient willingness to restructure.

Regardless of how the bad loans problem is handled, however, the banks can only be expected to operate on a purely market-oriented basis if they themselves are privatized. As long as they remain state owned, the possibility that credit allocation decisions will be tainted by political considerations persists. Banks can only enforce market behavior on their customers if they themselves operate in a competitive market environment. While the economies in transition have begun to privatize banks, progress to date has been very slow (see Table 2). Meanwhile, the absence of strict licensing requirements in some of the economies resulted in the emergence of literally thousands of small privately owned banks in Central and Eastern Europe. Unfortunately, these banks tend to be seriously undercapitalized and undersupervised and are often simply financial agents for the enterprises that own them and have themselves accumulated significant amounts of nonperforming loans, to the point of becoming insolvent. Although consolidation of private banks has begun, notably in Russia and Poland, much more needs to be done if these institutions are to provide healthy competition for the (formerly) state-owned banks.
Before bank privatization—and perhaps even restructuring—is undertaken on a significant scale, it is important to ensure that the general environment under which the banks will operate is specified. While it is surely not necessary to pass an entire range of detailed financial laws, the broad parameters outlining admissible banking activities and responsibilities should be declared. One important aspect of this environment is the question of whether, and how, banks will be involved in securities trading; this question will be taken up later. Another important element of this environment is the possibility that bank deposits will be insured. As is well known, deposit insurance can create incentives on the part of bankers to take excessive risk, since they may not bear the full consequences of bad decisions. It is important to send a clear message that bank shareholders and managers are fully responsible for both their successes and failures by committing to a regime in which they will be the first to suffer losses if their banks fail.

Finally, transformation itself generates risks and uncertainties that need to be taken into account in market-based lending decisions. Even in the initial stages of the post-privatization period (after both banks and enterprises have been financially restructured), the role of banks in providing fresh funds may be modest without government involvement. The recent experience in Germany is instructive in this regard. German banks have demanded guarantees to keep credit flowing to firms in the former East Germany. Whereas it was initially expected that equity markets would play a role in the (post-)privatization process, their contribution was negligible (for example, venture capital funds contributed less than 1 percent of the financing). Since there was no substitute for bank funding in the restructuring and privatization process, government guarantees to the banks were provided (OECD, 1993c). Likewise, many bank loans granted in formerly planned economies in support of privatization are part of government-sponsored programs. The loans are extended by the commercial banks, but they are all refinanced by the central bank. Although this type of government intervention could be justified on the grounds of information externalities (see Nakamura (1993) for a general discussion), the provision of "soft loans" runs counter to the objective of developing a banking culture in which loans are provided on market terms.

Market Structure and the Role of Banks

Although it has been argued above that in the formerly centrally planned economies the banks' role in providing finance to enterprises is compromised by their inherited portfolio problems and lack of
experience with market-based lending, it is nonetheless true that emphasis should be placed on improving the position of the banks rather than supporting alternative institutions. This conclusion is based in part on the observation that a sound, competitive banking system lies at the heart of any efficient securities market. Securities market participants rely heavily on bank credit to ensure liquidity in these markets; and the creation of securities markets in an economy with a weak banking sector will unduly increase systemic risk.\(^8\)

Securities markets can be segregated for discussion between the primary markets in which the securities are issued, and the secondary market in which they are traded among investors. It is by means of an issue in the primary market that firms raise capital. However, firms are not entirely ambivalent about the development of the secondary market. The greater the liquidity in the secondary market, and the greater the information available to participants, the more efficient will be the price discovery process and therefore the more reliable will be these prices as indicators of how new issues should be priced. Moreover, a liquid secondary market increases the range of potential primary market investors by improving the maturity transformation role of the market. Investors wanting short-term assets will be prepared to purchase long-term bonds if they are confident that they can sell them on the secondary market when they want to.

Banks' involvement in the primary markets is both direct and indirect. In many formerly centrally planned economies, banks are permitted to underwrite security issues either directly or through subsidiaries. However, even if this is not permitted, underwriters will often turn to banks for credit. The underwriters' demand for credit stems from their need to hold securities during issue, to support prices immediately after the initial issue, and to hold undistributed securities.

In the secondary market, the same considerations apply. Brokers will on occasion need to accumulate large amounts of stock to satisfy a block purchase, or sell off large blocks piecemeal, for which they may need short-term credit. In addition, large purchases are often made with funds borrowed from the brokerage. The broker itself may acquire the funds by drawing on a line of credit with a bank.\(^9\) Dealers will demand

---

\(^8\) Systemic risk is loosely defined as the possibility that a failure of one financial institution will lead to failures of other institutions with which it has had dealings, with the result that the flow of financial payments is significantly restricted.

\(^9\) The bank may be unwilling to lend directly to the individual investor because the loan would be backed only by the securities purchased, whose value may fluctuate significantly. However, a loan of the same amount to the broker would be backed by the broker's more extensive securities and capital, making default less likely.
credit to finance their proprietary positions and to facilitate the buying and selling required of them in their role as market makers.

In securities exchanges, banks are relied upon to provide same-day "good funds" to finance margins. In addition, brokers and dealers will need access to credit to manage settlement delays or failures. The exchange clearinghouses will need to maintain borrowing rights to protect the market against defaults by one or more members of the exchange. Obviously, the potential demand for bank credit can be reduced by requiring brokers and dealers and securities exchanges to maintain larger reserves. However, to ensure that temporary liquidity shortages do not result in the complete collapse of the securities markets, lines of credit will be needed to provide support in very large settlement failures. It must be possible to draw on these lines of credit immediately upon recognition of a problem. This generally means that the potential creditor needs to be an institution with access to same-day central bank funds, which is generally restricted to the commercial banks that participate in the large-value payment system.

Clearly, the development of securities markets cannot be considered in isolation from the health of the banking sector. It is important to ensure that the banks that provide credit to securities market participants are able properly to assess the risks involved. They must have expertise in securities market trading to understand the transactions they are ultimately financing, and they must be able to assess the credit risks involved. Finally, banks' exposure to securities market lending should be monitored.

This discussion suggests that the banks' restructuring and recapitalization should precede their involvement in securities markets. The introduction of securities markets and the necessary creation of lines of immediate credit with highly variable amounts of credit actually being demanded will greatly increase systemic risks if the banks providing these credit lines are themselves undercapitalized and illiquid. This suggests, however, that the development of the securities markets will itself be constrained by the progress in bank restructuring.

Financial Structure and Discipline

Privatization and Separation of Ownership and Control

Among the fundamental challenges of the transformation period is the privatization of state-owned enterprises. Financial institutions are expected to play many roles in privatization. First, they may be expected to play an important role in the restructuring of state-owned
enterprises awaiting privatization. Second, they are expected to mobilize domestic and foreign funds and make them available for financing ownership transfers to the private sector as well as to provide working capital and investment finance to enterprises after they have been privatized. Third, financial institutions will provide financial advice and other specific services, for example, payment services. Finally, as will be argued below, financial institutions play an important role in the monitoring and control of managerial activities.

Privatization policy faces many challenges: the huge numbers of firms and individuals involved, the considerable difficulty in valuing enterprises, underdeveloped capital markets, the need to restructure enterprises, conflicts about the fairness of the different privatization schemes, administrative bottlenecks, a weak banking sector, and legal uncertainties. Different privatization strategies have been adopted in the various economies in transition reflecting, inter alia, differences in starting points, political concerns about equity, and other country-specific considerations. However, in broad terms, the objectives are similar: a speedy transfer of property rights resulting in effective private control of the privatized enterprises by the new owners.

These considerations prompted the authorities in the economies in transition to adopt multitrack approaches to the privatization of large enterprises by using combinations of the following basic methods (Blommestein, Geiger, and Hare, 1993): (1) public offering of shares; (2) sales of shares to a private buyer or group of buyers; (3) free distribution of shares to the employees or population (for example, direct transfers of shares, distribution through vouchers, and distribution through intermediaries); (4) restitution to former owners; and (5) buy-outs, buy-ins, and other forms of "bottom-up" or "insider" privatization.

For example, the Hungarian approach to privatization has favored methods (1), (2), (4), and especially (5), whereas the Czech and Slovak Republics pioneered the mass privatization approach (3). Other formerly centrally planned economies, Poland, Romania, and Russia, for example, have also proposed voucher privatization programs.

The different methods employed in privatization emphasize different financial institutions. In each country, banks have been playing, or will be expected to play, a significant role in the restructuring of the enterprises both before and after privatization. In Poland, for example, the restructuring of enterprises is to be carried out by the banks...
as part of their own restructuring and recapitalization. Where adopted, voucher privatization has resulted in the creation of investment funds that hold concentrations of shares in privatized firms, and provides for broad participation by the population through ownership of interests in investment funds. The implementation of methods (1), (2), and (3) creates an immediate demand for the creation of a secondary market in equity.

The challenge will be to ensure that privatization of enterprise ownership results in market-oriented behavior on their part. One of the important characteristics of a market economy is that it includes a set of rules and institutions that promote the efficient allocation of resources. In market economies characterized by many large enterprises in which managers may not be the sole or even the most important owners, this allocation mechanism needs to provide the proper incentives for managers to respond rationally to information conveyed in market prices, while simultaneously limiting their incentive to act in ways that are detrimental to the interests of creditors and shareholders. Central to this mechanism is the maintenance of effective corporate control, which itself relies to a large extent on the existence of private property rights and market-based financial institutions. These market-based control mechanisms are missing in the formerly centrally planned economies.

Consequently, an important goal of privatization is to ensure that the transfer of property rights from the state to the private sector is combined with the development of institutions and rules that provide an effective corporate governance structure in an economy dominated by private agents. The concept of "effective corporate governance" is based on an understanding of the institutions and rules that govern the allocation of resources in a market economy. A proper understanding of the factors that shape the structure of corporate control in market economies is fundamental to the analysis of the role of financial institutions in the process of transformation, including privatization.

**Agency Problems in Privatized Firms**

The broad distribution of shares in privatized firms and asymmetries of information between the managers of the firm, its shareholders, and its creditors creates the potential for conflicts between these groups in which one group attempts to increase its own welfare at the expense of the welfare of the others. Shareholders and creditors run the risk that managers will take actions that reduce the value of either or both of these claims, while if shareholders have some
control over the firm, they may take actions that increase the value of their claims at the expense of the value of the firm's debt ("asset substitution"). These conflicts can fruitfully be discussed in terms of a principal-agent model in which, for example, the manager acts as the agent for the principal (shareholders or creditors). The essence of such conflicts is the inability to observe other parties' actions combined with a divergence of interests. If access to information is asymmetric among managers, shareholders, and creditors, such conflicts cannot generally be contracted away entirely.

Agency conflicts are costly to the firm because they can result in suboptimal investment decisions. For example, the less protection creditors have against asset substitution, the less willing they will be to lend to the firm, resulting in an increased cost of capital. Likewise, investors will be less willing to purchase equity if they cannot prevent managers from appropriating more than their agreed share of profits.

The conflict between managers and investors can be alleviated by providing creditors and shareholders with a mechanism for monitoring the behavior of the agent. Provided this monitoring ability is combined with an enforcement mechanism, second-best contracts can be designed that reduce the agency cost. In a centrally planned economy these agency costs are reduced because the state is the only shareholder and, in theory, dictates instructions to the managers and is able to verify both that these instructions are carried out and that their reported effect is accurate. The challenge of privatization is to replace this direct monitoring and control by the state with market-based mechanisms.

This provides the basic rationale for the corporate control function of financial institutions. The challenge is to create an incentive structure in which the interests of the managers, shareholders, and creditors can be reconciled or the conflicts controlled. Three classes of resolution of the principal/agent problem exist: using product and labor markets to reward or punish managers' behavior; changing the firm's capital structure; and introducing direct control mechanisms to enforce efficient behavior. The precise structure of corporate control is, therefore, dependent on a number of interrelated factors, including (1) shareholders or debt claimants; (2) the legal infrastructure, in particular, the type of bankruptcy rule and other asset restructuring rules such as loan workouts; (3) the relative importance of the bank-

---

11The application of principal/agent methodology to corporate finance was initiated by Jensen and Meckling (1976). See Barnea, Haugen, and Senbet (1985) for a review of agency theory.

12See Harris and Raviv (1991) and Holmstrom and Tirole (1989) for surveys of the literature on corporate control mechanisms.
ing system (vis-à-vis the capital market) in long-term lending to large enterprises and equity holdings by banks; (4) the presence and role of large shareholders; and (5) the composition and structure of enterprise boards.

Despite the fact that one can identify some basic forces that shape the general framework for corporate control by financial institutions, understanding of these mechanisms remains limited. Moreover, the (endogenous) outcome of the interaction between these factors—the management of large enterprises and other economic agents—is impossible to predict. However, a brief discussion will provide a number of insights that will be helpful in analyzing the role of financial institutions in the transformation.

One approach to controlling managerial behavior is to give managers an incentive to act in the interests of the owners by linking their income to the firm's performance. Thus, for example, they can be given shares or stock options that link a significant portion of their income to the market value of the firm. However, in the highly uncertain environment of the economies in transition, the market value of the firm will be affected by systematic uncertainty unrelated to the performance of the manager. Therefore, the direct link between the actions of the manager and the value of the stock is weakened, which increases the agency cost. Moreover, linking managerial compensation to current stock value can cause a certain myopia on the part of managers.

Along similar lines, managerial discipline has been linked to the labor market for managers. It is argued that a desire to maintain a reputation as an effective manager—and thereby retain access to alternative employment opportunities—induces managers to increase their effort. If so, they have an incentive to ensure good performance by the firm, since it provides them with a reputation for excellence. However, in the formerly centrally planned economies, this mechanism will be weakened as it will be difficult to identify the degree of the manager's responsibility for the success or failure of the firm.

**Capital Structure and Discipline**

The capital structure of the firm itself provides one source of control. A debt contract carries an obligation to make regular interest

---

13This argument was made by Fama (1980).

14Managerial "effort" is broadly interpreted to mean the total of their activities and the quality of their decisions affecting the operation of the firm.
payments, and failure to meet this obligation allows the creditor to force the firm into bankruptcy or liquidation. This can exert a disciplining effect on management, since a manager of a highly indebted firm who wants to avoid bankruptcy will expend more effort to avoid low profits. If managers own stock in the firm, they have a share in all profits earned in excess of interest payments and therefore have an additional incentive to increase their effort. Moreover, an increase in debt decreases the free cash flow (net return to the project minus interest payments), thereby reducing the extent to which managers can appropriate corporate earnings to increase their own welfare.

Loan contracts also give banks an incentive to monitor closely the behavior of the managers and the firm’s performance to ensure that the loan is repaid and to avoid being forced to continue lending to large firms that threaten to default on their obligations. In addition, a bank can choose to cut off the firm from future lending if it considers the bank a poor credit risk. This is a potentially important sanction because, in evaluating the loan application, the bank has access to confidential information about the firm’s prospects. Therefore, an announcement that access to credit is being suspended sends a very strong negative signal to other potential lenders to the same enterprise.

The effectiveness of debt in promoting managerial effort is limited, however, since the manager of a highly indebted firm also has an incentive to engage in asset substitution. For example, once the terms of debt contracts are locked in, investments in projects with greater return variability would shift wealth from bondholders and other creditors to shareholders. Several instruments or institutions have been developed to counter this problem, thereby reducing the potential conflict between debt and equity holders: (1) the inclusion of debt covenants to restrict asset substitution (for example, limits on dividends and new borrowing, and constraints on the use of funds); (2) the issue of convertible debt instruments and securitized debt; (3) the use of rating agencies to monitor firms and provide an objective valuation of their debts; and (4) the joint provision of debt and equity financing by banks that are also major shareholders. The last mechanism is discussed below.

15See Grossman and Hart (1982), Jensen (1986), and Stulz (1990). This reasoning assumes that bankruptcy is costly to managers because it tarnishes their reputation, which will reduce their value on the labor market. If managers can easily move into new jobs with no significant change in their total income, they will be less concerned about going bankrupt than if, for example, they want to protect their reputation as effective managers to attract outside employment opportunities or if their income is otherwise adversely affected by bankruptcy.
Equity contracts also affect the incentives faced by managers. The principal advantage of equity over debt is that it allows firms to share the risk they face with the shareholders rather than bearing it all themselves. The absence of a contractual obligation to make fixed payments reduces the penalty faced by firms in the event of an adverse shock. However, this flexibility in paying dividends is also the principal disadvantage of equity. Since managers know they have to share the rewards from successful projects with the shareholders, they may be less likely to increase their own effort in making projects successful, and more likely to divert resources and profits to their own uses or to engage in other self-promoting activities that do not maximize the value of the firm.

The principal weakness of equity finance is that there is no explicit mechanism for monitoring or controlling management as there is in a debt contract. Individual shareholders with small stakes have little incentive to impose discipline on managers because the costs of monitoring and controlling managerial behavior generally outweigh the increase in the value of their shareholdings that would result. This public good aspect to managerial discipline makes it unprofitable for individual shareholders to monitor managers. Even large shareholders can only express their concerns at infrequent shareholders' meetings unless they have direct representation on the board of directors or in management. Indirect mechanisms to mitigate the agency conflict between managers and shareholders have been created or have evolved spontaneously: (1) linking managerial pay to performance through ownership of stocks and stock options as well as through the payment of cash bonuses; (2) monitoring by large shareholders and the board of directors; (3) the threat of takeovers; (4) policies on the payout of dividends that limit the scope for managerial discretion through reputational forces; and (5) an increase in leverage.

This discussion assumes that minority shareholders have little or no ability to influence managerial behavior. However, there is an internal source of control: the directors of the company, who have a fiduciary responsibility to protect shareholders' interests. This requires that they monitor the activities of the managers and discipline managers who consistently fail to act in the shareholders' interests. Of course, there is the problem of ensuring that the directors act appropriately, since in many cases they are appointed by management. This can be achieved, for example, by legislating codes of con-

16Bondholders are in a worse position than shareholders, since they have access to the same information but no direct means of influencing managerial behavior.
duct and responsibility for directors, by having directors nominated by all claimants on the firm, and by having outside directors.

The capital market itself provides an external control mechanism: the threat of takeovers. If ownership is a marketable commodity, a firm that is perceived to be underperforming relative to potential can be purchased by an outsider that installs a new managerial team that can correct the problems and earn greater profits for the firm. If the firm’s shares are traded on an open market, the daily share price provides an indication of the firm’s prospects. A potential raider can then determine how the market value of the firm relates to the value he places on the firm. Again, takeovers are likely to influence managers’ behavior only if they perceive a personal cost to being taken over.

In practice, however, takeovers are not always effective. They may be a weak disciplinary tool because it is relatively easy for managers to protect themselves against personal losses owing to takeovers, for example, by creating “golden parachutes” that give them extremely generous severance packages. Moreover, the information asymmetry between firm insiders and raiders can reduce the probability that the takeover will be profitable. Insiders will only be inclined to sell their shares if they think the market overvalues them. Small shareholders will have an incentive to free ride on the takeover bid since they can expect the value of their shares to rise either because of a successful bid and restructuring or because the raider has to pay a premium to acquire a majority share. Therefore, takeovers can result in the raider paying too much for the company.17 If this free rider problem is significant, takeovers will generally only be profitable if the raider values the firm differently than the current shareholders or if the raider can exploit minority shareholders through equity dilution after the takeover.

In the formerly centrally planned economies, the most important sources of corporate control are likely to be bank debt and monitoring by large shareholders. The dominant sources of uncertainty are systemic in nature, which makes it difficult to determine how much of a firm’s performance reflects the quality of its management. Therefore, managerial contracts will have a large noncontingent element, which does not induce them to increase their effort. Moreover, contract enforcement is still weak in these economies, which reduces the strength of purely contractual arrangements. However, the control

17 See Grossman and Hart (1980) for an elaboration of this idea. Shleifer and Vishny (1986) note that if the increase in the value of the raiders’ shares exceeds the amount spent to induce minority shareholders to sell, the takeover will be profitable.
mechanism provided by bank loans—assuming banks’ decisions are guided by purely economic motivations—is effective. So too is the potential role of holders of significant blocks of voting shares, since they have a greater influence on managerial activities than do small shareholders. The privatization programs in place or envisaged in the economies in transition will, in principle, allow for concentrations of shareholdings of this sort.

Universal Banks and Capital Markets

Universal Banks

Many authors have argued that the universal banking system, such as that of many continental European countries—Germany in particular—should be established in the formerly centrally planned economies. In fact, many of the countries in transition have already passed legislation providing for the creation of universal banks (see Table 3). In such a system, banks provide both commercial and investment banking services such as the underwriting of securities issues and participation in secondary markets, although the latter may be relegated to subsidiaries. Most important, universal banks are often permitted to hold significant amounts of equity in the firms to which they lend and to represent themselves, as well as shareholders whose shares they hold in trust, on the boards of directors of these firms.

The central argument for such an arrangement is that by internalizing the debt/equity conflict identified above, universal banking allows for an allocation of financial resources that is more efficient and that allows firms to concentrate on longer-term objectives. In a universal banking system, banks are in a position to monitor closely and to influence the decisions taken by the managers. They can therefore discipline poor managers in two ways: by pressing for their removal by the board of directors and by withholding credit. In addition, the combination of commercial banking and investment banking activities is thought to allow universal banks to capture economies of scale and scope, and therefore to provide both kinds of services at reduced costs.

Kindleberger (1984) has argued that the role of banks as “engines of growth” in Europe has been overplayed. Moreover, a structure

---

18See, for example, Saunders and Walter (1992) and Corbett and Mayer (1991). Gerschenkron (1962) and Cameron (1991) have argued strongly that the universal banking model played a key role in the development of continental Europe.
<table>
<thead>
<tr>
<th></th>
<th>Former Czechoslovakia</th>
<th>Hungary</th>
<th>Poland</th>
<th>Bulgaria</th>
<th>Romania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal banking?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Limits on equity participation by banks</td>
<td>Participation in nonbanks limited to 25 percent of capital and reserves without prior consent of central bank; may acquire a 10 percent share of capital of nonbank without prior consent of central bank</td>
<td>Long-term investments in nonfinancial institutions limited to 15 percent of warranty capital for commercial and specialized banks and 40 percent of warranty capital for investment banks. No bank can hold more than 51 percent share in nonfinancial firms</td>
<td>Participation in other institutions (including loans) limited to 25 percent of capital and reserves without prior consent of central bank</td>
<td>Ten percent of share capital of nonbank without prior consent of central bank; excludes shares and interests acquired in debt settlement provided they are sold within three years</td>
<td>Twenty percent of share capital of nonbank without prior consent of central bank</td>
</tr>
<tr>
<td></td>
<td>Sum total of shares held by a bank in a nonfinancial institution may not exceed 60 percent of warranty capital</td>
<td>Above calculations can exclude securities held by bank for less than six months</td>
<td>Sum total of investments of bank in immovable property, equipment, shares, and interest in nonfinancial undertakings limited to own capital</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Regulatory Environment for Banks in Selected Central European Countries
<p>| Minimum capital requirements for opening a new bank | Foreign owners of universal banks: $10 million or equivalent in koruny or convertible currency | $12 million for commercial bank; $6 million for specialized or investment bank | Foreign owners: $6 million or equivalent in convertible currency | Domestic operations only: leva 200 million | Domestic and foreign operations: lei 20 billion (1992) |
| Limits on ownership of banks | Foreign financial institutions' participation in privatization of state-owned banks limited to 25 percent; can be waived on a case-by-case basis | Except for financial institutions, maximum stake for a single investor is 25 percent (limitation applies to government from 1997) | Government will determine limits on size of foreign investors' equity stake in privatization of state-owned banks | None | None |
| | Nonbank share cannot exceed 10 percent of bank capital without prior consent of the central bank | Total foreign participation in banks in excess of 10 percent requires government approval | Ownership of any individual shareholder limited to 50 percent of bank's capital | None | None |
| Risk-weighted capital adequacy requirements | Banks established before 1991: (a) 6.25 percent by end-1993 | Banks established before 1991: 8 percent according to Hungarian accounting | Banks established before 1989: 8 percent with transition period and interest | Eight percent transition period to be determined | Eight percent by end-1994 |</p>
<table>
<thead>
<tr>
<th>Former</th>
<th>Hungary</th>
<th>Poland</th>
<th>Bulgaria</th>
<th>Romania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Former</td>
<td>Czecho</td>
<td>Slovakia</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) 8 percent by end-1996</td>
<td>Ing standards (including 4 percent core capital); central bank can grant exemption until 1994</td>
<td>mediate targets determined on a case-by-case basis by the central bank</td>
<td>New banks: 8 percent</td>
</tr>
<tr>
<td>New banks: 8 percent</td>
<td></td>
<td>New banks: 8 percent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bankruptcy law</td>
<td>Bankruptcy law enacted 1991—implemented in April 1993</td>
<td>New bankruptcy law came into effect 1/1/92</td>
<td>Bankruptcy law dates to 1934, amended by the Insolvency Act of 1990</td>
<td>No separate bankruptcy law; temporary provisions part of 1989 decree on economic activity</td>
</tr>
<tr>
<td>Banks can initiate bankruptcy proceedings</td>
<td>Debtor must declare bankruptcy if any payment obligations are overdue by more than 90 days</td>
<td>Banks can initiate bankruptcy proceedings or liquidations under the Law on State Enterprises</td>
<td>Banks can initiate bankruptcy proceedings</td>
<td>Bankruptcy Law of 1887 still in effect; new legislation before parliament</td>
</tr>
<tr>
<td></td>
<td>Liquidation procedure can be initiated by banks</td>
<td>Law on Mutual Settlement of Debts (effective 1993) gives banks the lead role in negotiating creditor agreements with firms</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Official government reports and documents.
that was appropriate in nineteenth century Europe, for example, is not necessarily appropriate for the economies in transition today: in fact, such a model might be particularly inappropriate for these countries. First, the universal banking model gives significant equity stakes to the commercial banks. In the Czech and Slovak Republics and in Poland such investments can reach 25 percent of the bank's capital, and in Hungary they may reach 15 percent, without requiring central bank approval. Hence, an important part of bank assets will be composed of shares in newly privatized firms. But these shares are extremely difficult to value, and market determinations of this value are likely to fluctuate widely. Also, the dominant source of uncertainty in the transitional economies will be systemic in nature. Therefore, diversification of banks' portfolios will not necessarily eliminate much of this variability. The monetary authorities may therefore want to enforce strict compliance with prudential regulations that set broad limits on bank ownership of nonfinancial enterprises and on equity positions of core capital (see Table 3).

Second, commercial bank participation in the management of a large number of enterprises threatens to dilute already scarce human capital in financial management. Securities market activities require expertise similar to that employed in commercial banking: evaluating potential risks and returns to investments and being able to price financial assets. If these skills are not well developed, both banking and securities operations will suffer. Since bank lending will likely contribute more to corporate growth than securities, it would be desirable to concentrate whatever financial expertise there is on the banks' core lending activities. Moreover, bankers do not necessarily make good managers or directors, and thrusting them into this role would divert their attention away from the activity in which they presumably have a comparative advantage.

There is also an important managerial issue. Banks have limited experience with risk and credit management skills. They therefore need to establish strict internal guidelines that ensure that loans are based on sound credit analysis. If they are allowed to hold significant equity stakes in firms to which they also lend, they may face the same perverse incentive to continue lending to insolvent, or at least unprofitable, enterprises as occurred under the previous regime. This incentive can be controlled by the maintenance of "fire walls" between the investment banking and credit operations of the bank, but such controls can be difficult to erect and monitor.

A similar consideration is that it is much more difficult to supervise and regulate universal banks than narrower commercial banks or investment banks. As a simple prescription, banks should not be
allowed to engage in activities that regulators cannot be certain they can monitor. If bank supervision and regulation is weak, as in the economies in transition, the full range of universal banking activities should not be permitted in the initial stages of the transformation process. It is easier to allow commercial banks to broaden their activities and become universal banks later (if that is the desired path of financial development) than to force universal banks that have run into difficulties to shed their securities market-related activities. If banks are eventually to be allowed to have a direct role in securities markets, these activities should be confined in separately capitalized subsidiaries to ensure that the failure of the securities business does not affect the capital that supports the commercial banking activities.

Finally, Steinherr and Huveneers (1990, 1992) and Muldur (1992) find no evidence of economies of scale or scope in universal banking and warn that such a system leads to excessive cartelization in the financial sector and underdevelopment of securities markets. They also raise the possibility that banks will become captive to the firms in which they hold significant equity stakes and may not fully exercise their corporate governance role. Thus, in the economies under transformation, universal banking may simply add to the riskiness of banks’ portfolios without significantly improving their corporate governance role, their own profits, or the allocation of capital. These considerations argue in favor of at least delaying the establishment of universal banking institutions until the supervisory and regulatory authorities have developed the capability to enforce fire walls and prudential regulations, economic uncertainty relating to the transformation process has diminished significantly, and bank managers have established successful track records.

**Capital Markets**

Capital markets in formerly planned economies potentially have a number of important roles to play in the transformation process, including facilitating the process of privatization; providing risk capital or long-term debt finance for restructuring and expansion; providing a mechanism for noninflationary finance for the government; providing mechanisms for corporate control; and providing domestic and foreign savers (including institutional investors) with instruments to diversify their portfolios, thereby encouraging savings and the mobilization of funds.

Unfortunately, existing capital markets in these economies are ill equipped to perform such tasks soon. Trading of stocks is generally insufficient to support significant new issues, and much of the trad-
ing that does occur is unregulated and unsupervised. In addition, in
the current inflationary environment in many of these countries, cor­
porations are reluctant to issue bonds. So the provision of new capital
through the equity and bond markets is unlikely to be significant
under current conditions. However, secondary markets for equity
will provide a valuable means of transferring ownership rights—
thereby giving real meaning to privatization.

Equity Markets

In addition to the risk-sharing benefits of equity, the transformation
to a market economy creates a special motivation for the development
of equity markets: privatization. Although the current state of equity
markets does not make privatization through initial public offering a
viable option for most enterprises, alternative strategies such as
voucher privatization will result in large numbers of individuals and
institutions holding claims to former state-owned enterprises or to
investment funds. Since the initial distribution of privatization
vouchers or shares is unlikely to coincide with individuals' preferred
holdings, a secondary market for these instruments would allow a
more efficient distribution of equity ownership. In addition, a second­
ary market for such claims will provide individuals with some liquid­
ity in their investments.

The development of a viable equity market, however, is difficult
and time consuming and includes an important role for the authori­
ties. Although it is preferable that the actual structure of the market—
for example, exchange trading versus over-the-counter trading,
brokers versus dealers, call market versus continuous trading—is
determined by its participants, the authorities must ensure that activ­
ity is appropriately regulated and supervised and that the essential
preconditions to efficient market operation are provided.

First, as indicated above, priority should be given to the develop­
ment of a competitive banking system. Liquid interbank markets—
supported by an efficient large-value payment system—are a key
institution for the development of securities markets.19 Efficient clear­
ing and settlement of securities transactions depend on the existence
of a banking system capable of providing liquidity to securities firms
and clearinghouses. The delay in providing appropriate clearing and
settlement systems owing to problems with the large-value transfer
system for domestic payments and/or the inability to process the

19See Blommestein (1993a and b), Summers (1994), and Folkerts-Landau, Garber,
and Lane (1994).
potentially large volume of securities transactions of low value has been an important constraint on market development in the formerly centrally planned economies.

It is also important to address the minimum regulatory requirements. At the very least, the existence of a secondary market for equity requires the legalization of free disposal of private property; limited liability for shareholders; commercial law specifying the rights and responsibilities of firms, managers, shareholders, and directors; and securities legislation prohibiting market manipulation and fraud and specifying penalties for infractions. Such legislation requires a body that is empowered to enforce the law, capable of carrying out sanctions, and removed from political influence. The authorities need to avoid unnecessary legal or fiscal restrictions on the transfer of shares. More generally, the regulatory framework must be efficient, taking into account the type of investors (small or large) and the business involved.

Investor confidence is important to the continuation of any asset market, and particularly in the formerly centrally planned economies, in which, for the most part, experience with trading financial assets is limited. Participants must be confident that the market is fair and that there is an effective authority actively seeking to maintain this fairness. It is vitally important, therefore, to provide avenues for the dissemination of information about the market and listed companies. This requires the use of widely agreed accounting and auditing standards and regular financial statements from listed companies.

The so-called emerging markets provide an indication of how well equity markets in the transitional economies might function. A number of common characteristics can be identified: (1) these markets are thin, even where they are relatively old; relatively few firms, corresponding to a small fraction of total capital in the economy, are listed; (2) these markets are highly illiquid, with trading concentrated in only a small subset of the firms listed; (3) they are volatile, with the average weekly rate of change in the index exceeding that of the more developed markets; (4) they are prone to speculative bubbles and collapses; and (5) they are vulnerable to fraudulent activity.

Another source of concern is the inefficiency of asset pricing in these markets. Even if there were liquid markets in equity, the problems of determining asset values without standard financial statements and with almost meaningless historical price and output figures make objective pricing extremely difficult. Therefore, for the foreseeable future, prices will be highly unreliable. Nor will it be any easier to price the investment trusts. Moreover, simply because investment trusts may hold large portfolios, they may not be much
less risky than individual firms. The most important source of risk in the economy is likely to be political risk, which cannot be diversified.

This brief examination of the immediate prospects for well-functioning equity markets in the formerly centrally planned economies is less than encouraging. The institutional preconditions for the effective operation of primary and secondary markets for equity—a sound banking system capable of providing liquidity, an efficient payment system capable of effecting timely payment versus delivery, and the requisite regulatory and legislative foundation—will necessarily take time to erect. In addition, private pension and insurance funds, which are key participants in equity markets in industrialized countries, are so far missing in the economies in transition. These contractual savings institutions, when fully funded and permitted to invest in equity and bonds, will play an important role in promoting these markets. However, such developments will take time. In the meantime, equity prices will likely prove to be unreliable and markets will be illiquid. In such circumstances it is unlikely that equity markets will provide substantial new capital.

**Bond Markets**

In more developed capital markets firms raise capital by issuing debt securities of their own (for example, commercial paper, corporate bonds). These instruments are attractive because they provide cheaper and more flexible sources of finance than, say, bank loans, as they reduce the role of the intermediary between the firm and the ultimate investors. Investors hold corporate debt because it provides an attractive return and because it is a tradable asset and so is not significantly less liquid than deposits.

However, access to the bond market is usually restricted to only the most profitable and reputable firms, because holders of debt securities generally are less able to monitor managers' behavior than are banks and perhaps even equity investors. They therefore will usually be prepared to invest in debt securities only if an effective control mechanism has already been established. This control problem is solved at least partly by requiring that bonds must be rated on an ongoing basis by an independent agency with access to the same confidential financial information provided to banks. Bondholders thereby leave it to the rating agency to monitor the quality and activities of the firm's management, the return on the firm's investments, and other considerations that determine its ability to service its debt. In addition, commercial banks provide a signal to investors about the firm's ability to service its debt through their willingness to lend to
the firm, particularly if bank loans are junior to debt securities. Finally, bondholders can exert a certain amount of direct control through the use of bond covenants restricting, for example, the firm’s ability to take on more debt, particularly if that debt would be senior to the existing debt, or to increase its dividend payments.

The development of the corporate bond markets requires the same institutional and regulatory preconditions as those of the equity markets. In addition, the existence of liquid markets in bonds with shorter maturities is a general precondition for bond issues of longer maturity. Clearly, therefore, the government’s financing activities will assist in the development of this market. By providing a relatively safe, homogeneous asset with a range of maturities, the government can build up investors’ experience in trading financial assets, thereby providing a pool of potential investors, and facilitate pricing of longer-maturity instruments. The development of the bond markets is also supported by interest rate deregulation.

**Capital Market Development in Central Europe**

The development of capital markets in the formerly centrally planned economies is still at a relatively early stage (see Tables 4 and 5). There are stock markets in Bulgaria, Hungary, Poland, Ukraine, the former Yugoslavia, and the Czech, Russian, and Slovak Republics. However, with the possible exception of the Warsaw Stock Exchange, where weekly turnover has recently reached record levels of over $100 million, these exchanges see very little activity. The Budapest Stock Exchange is open five days a week, but weekly stock turnover is usually only in the range of $1-4 million. The Prague Stock Exchange generally has turnover of less than $100,000 with one day of trading per week, while turnover on the Bratislava Stock Exchange in listed and unlisted stocks is usually less than a tenth of that amount. In general, there are few issues listed and even fewer see active trading. For example, the Prague Stock Exchange has 957 unlisted stocks eligible for trading but fewer than 10 percent of these have seen any activity. Reporting requirements are often weak—for example, the unlisted stocks on the Prague Stock Exchange and the Bratislava Stock Exchange are not required to provide any information—and supervision of these markets is still incomplete.

Most of the securities trading takes place outside the organized exchanges and is therefore almost entirely unregulated. Over-the-counter trading in equity in the Slovak Republic was recently estimated to exceed trading on the Bratislava Stock Exchange by a factor of ten. The second round of trading on the RM System, an electronic
over-the-counter stock trading system that competes against the Prague Stock Exchange and Bratislava Stock Exchange, had turnover of Sk 252.4 million in the Czech Republic in July, compared with weekly turnover on the Prague Stock Exchange of less than Sk 1 million. Furthermore, there are no reporting requirements for the unlisted stocks on the Prague and Bratislava Stock Exchanges.

Generally speaking, with the possible exception of the Warsaw Stock Exchange, turnover is simply too low—even including over-the-counter trading—and the number of issues being actively traded is too small to provide hope that firms will raise substantial amounts of new capital soon. In addition, the markets are extremely volatile, often driven by frenzied buying of only a small number of stocks and frequently tainted by the suspicion of illegal trading activities.

There are comparatively active bond markets in most of the formerly centrally planned economies. Indeed, turnover on the Prague, Bratislava, and Budapest Stock Exchanges is dominated by trading in bonds. Until recently, 90 percent of the turnover on the Bratislava Stock Exchange was in bonds, although that proportion has now fallen to about 70 percent. On the Prague and Bratislava Stock Exchanges the proportion of on-exchange trading accounted for by bonds exceeds 80 percent. However, except for one corporate bond traded on the Prague Stock Exchange, these are government bonds.

**Investment Funds**

The previous sections suggest that the financial systems in the formerly centrally planned economies may not yet be capable of providing the two services identified as essential for the transformation to a market economy: directing resources to their most efficient uses—for example, for restructuring—and providing effective corporate governance. Several countries have therefore created new types of financial institutions—hybrid investment funds—adapted to fit the special economic circumstances such countries face: a shortage of domestic savings, rudimentary capital markets, and difficulties in evaluating risks (Table 6). The innovative feature of these hybrid funds is that they are intended to play a threefold role (Blommestein, 1992): (1) serving as a mechanism for the transfer of ownership to large segments of the population while permitting portfolio diversification to small investors; (2) playing an important corporate control role in privatized enterprises; and (3) raising new financial funds for the restructuring of privatized enterprises. Over time these funds are also intended to contribute to the development of capital markets.
Table 4. Regulatory and Legislative Framework for Securities Markets in Selected Central European Countries

<table>
<thead>
<tr>
<th></th>
<th>Czech Republic and Slovak Republic</th>
<th>Hungary</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Act on Securities and Bonds (1992)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisory structure</td>
<td>Ministry of Finance, through the Stock Exchange Commissioner</td>
<td>State Securities Supervision Board</td>
<td>Securities Commission</td>
</tr>
<tr>
<td></td>
<td>Screen-based, order-driven; listed, unlisted stocks traded on the exchanges, which compete with RM-System, an off-exchange electronic trading system Limit prices were in effect on Prague Stock Exchange until September 1993 (20 percent fluctuation-50 percent for previously untraded stocks). Prague Stock Exchange trades on</td>
<td>Order-driven, partially screen-based (Central Market Support System) Monday to Friday, 11:00-12:30</td>
<td>Screen-based, order-driven, limit prices in effect (10 percent fluctuation allowed) Monday, Tuesday, Thursday, 10:30-1:00</td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tuesdays—plan to add Thursday sessions in October 1993; Bratislava Stock Exchange trades listed stocks on Tuesdays; and unlisted stocks on Wednesdays.

| Clearing and settlement | Centre for Securities (SCP) in each successor republic; book-entry | Book-entry through the Central Clearing House and Depository for Budapest Stock Exchange trades, physical transfer for over-the-counter market T+5 | National Depository of Securities, screen-based, order-driven trading T+4 |

Table 5. Types of Securities Issued and Trading Activity in Selected Central European Countries

<table>
<thead>
<tr>
<th>Czech Republic</th>
<th>Slovak Republic</th>
<th>Hungary</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government paper</td>
<td>Treasury bills: 1-, 2-, 3-, 4-month</td>
<td>Treasury bills: 5-day, 1-month</td>
<td>Treasury bills: 30-, 90-, 180-, 360-day</td>
</tr>
<tr>
<td></td>
<td>Treasury bonds: 2-, 3-year</td>
<td>State bonds</td>
<td>Treasury notes: 1-year</td>
</tr>
<tr>
<td></td>
<td>State bonds</td>
<td></td>
<td>State bonds: 2-, 3-, 4-, 5-year</td>
</tr>
<tr>
<td></td>
<td>Rehabilitation Bonds: 5-, 10-year</td>
<td></td>
<td>Bonds</td>
</tr>
<tr>
<td>Corporate paper</td>
<td>Commercial paper</td>
<td>Bonds</td>
<td>Treasury bills: 1-, 3-year</td>
</tr>
<tr>
<td></td>
<td>Bonds: up to 5-year</td>
<td></td>
<td>Bonds convertible into shares in privatized enterprises</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock exchange</td>
<td>Initial capital = Kč 120 million (34.3 million)</td>
<td>End-1992 capital: Ft 47 billion in equity, Ft 155 billion in bonds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1st day turnover: Kč 4.4 million</td>
<td>1992 turnover: Ft 33.7 billion (82 percent in bonds)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aug. 20 turnover: Kč 1.7 million in stocks, Kč 7.5 million in corporate and government bonds</td>
<td>Aug. 25-29 turnover: Ft 252.4 million in stocks, Ft 65.2 million in bonds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stocks: 957 unlisted, two listed; 3 bonds listed, one unlisted; 53 stock exchange members</td>
<td>26 stocks, 11 bonds, 9 treasury bills, 1 compensation coupon, 4 investment funds, stock options: deutsche mark, U.S. dollar-government bond futures at Budapest Stock Exchange; deutsche mark and U.S. dollar futures at Budapest Commodity Exchange</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foreign trading restricted to one-third of total</td>
<td></td>
<td>Week ended Aug. 20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19 stocks (plus 1 on parallel market), 6 bonds traded</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>29 stock exchange members</td>
</tr>
</tbody>
</table>

176 Hans J. Brommeleben and Michael G. Spencer
<table>
<thead>
<tr>
<th>Taxation</th>
<th>1 percent bond administration fee</th>
<th>...</th>
<th>44 stock exchange members, some one-third are foreign</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25 percent withholding tax</td>
<td></td>
<td>Certain purchases of Hungarian shares are tax deductible</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dividends taxed at 20 percent; capital gains generally tax exempt</td>
</tr>
</tbody>
</table>

Sources: Official government reports and documents; Bloomberg; Business Eastern Europe; Butterworths Journal of International Banking and Financial Law; Central European; Euroweek; Euromoney; International Finance Review; International Financial Law Review; International Securities Regulation Report; and PlanEcon Business Report.
The role of the investment funds is essentially to concentrate capital ownership and thereby act as large shareholders that have an incentive to provide corporate control since individuals would invest in these investment funds rather than directly in private firms. In the context of voucher-based privatization, individuals can sell their vouchers to the funds or exchange them for shares in the funds themselves. As large shareholders, the funds could also play an active role in enterprise management; the needed expertise could be provided in part by allowing foreign "experts" to manage these funds. (To offset the possibility that oligopolistic behavior by the investment funds would simply replace similar behavior by former state-owned enterprises, entry into the investment fund industry should be relatively free of restrictions.)

The combination of what are essentially investment banking and portfolio diversification services makes these funds unique and complicates their design. For example, it is probably inappropriate to model these funds on open-end mutual funds as are found in industrial countries, although both closed-end and open-end funds have been created in some of the economies in transition. Open-end funds must continually ensure sufficient liquidity to be able to satisfy demand for redemption of outstanding shares. Since the funds' investments—shares in former state-owned enterprises and investments in restructuring projects—will probably be highly illiquid, an open-end structure would either limit the funds' ability to invest in restructuring or require them to maintain possibly expensive lines of credit with commercial banks. More important, open-end mutual funds typically do not exercise a control function, serving instead simply as a means for individual investors to hold a diversified portfolio.

It would seem preferable, therefore, to limit the ability of investors to redeem their shares either by setting up the investment funds as closed-end funds or by restricting redemptions during an initial period. However, it would be permissible for individuals to trade in investment fund shares among themselves on a secondary market. In this way, the initial capital base of the investment funds would at least be partly protected—although it would of course fluctuate with the value of the funds' investments—while promoting the development of an equity market. The latter effect would be only marginal at first. The considerable uncertainty during the transformation period, the lack of reliable financial information on many enterprises, and the lack of a market for most enterprises' shares make it very difficult to value investment fund shares reliably. They are therefore likely to
suffer from thin trading and high price volatility. In the same vein, the portfolio diversification benefits of investment funds should not be overestimated. The overwhelming sources of uncertainty during the transformation are systemic in nature and therefore not diversifiable. This tendency for the value of all enterprises owned by the investment funds to move together is exacerbated if the investment fund managers have decided to channel the bulk of their investments to a few sectors.

The investment banking operations of the investment funds could be arranged in one or both of two broad patterns: the investment funds could simply assist enterprises in their search for external investors and creditors, in which case the loans, for example, would be made direct from commercial banks to the enterprises; or the investment funds could themselves borrow from commercial banks—perhaps using their capital base to borrow on terms more favorable than those available to individual enterprises—and use these funds to finance the enterprises they control.

The features of investment funds that have been established or are on the drawing board raise a number of important questions regarding regulation. When funds are essentially providing a portfolio diversification service to small investors, regulations are designed to protect the investors by limiting risk-taking by fund managers. Regulation of investment banks, on the other hand, necessarily places less emphasis on limiting risk than on protecting the capital base of these institutions, while venture capital firms face much less regulation. Therefore, the regulation of investment funds must somehow forge a compromise between the interests of the funds' investors and the objective of facilitating the reconstruction. However, no compromise should be made in eliminating fraud or the improper use of funds by investment fund managers. Such activity, and illicit financial transactions generally, would undermine confidence in financial markets (Blommestein, 1992, 1993b). Regulation should therefore take into account the unique objectives and features of the investment fund, but at the same time should be stringent in fighting against fraud and serious conflicts of interests.

**Markets for Derivative Securities**

The possibility of introducing markets for financial derivatives in the formerly centrally planned economies has already been considered (Antowska-Bartosiewicz and Malecki, 1992). Indeed, such securities are already available in some of these economies and are being
Table 6. Investment Funds in Selected Central European Countries

<table>
<thead>
<tr>
<th>Czech Republic and Slovak Republic</th>
<th>Hungary</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Types of investment funds</strong></td>
<td>Open- or closed-end funds</td>
<td>Open- or closed-end funds</td>
</tr>
<tr>
<td><strong>Portfolio value of assets</strong></td>
<td>After first round of privatization, investment funds held approximately 70–75 percent of the market value of privatized enterprises, estimated at Kčs 622 billion</td>
<td>State Property Agency had Ft 814.6 billion in assets at end-May, 1993 and had sold Ft 105.2 billion in assets since March 1990</td>
</tr>
</tbody>
</table>
| **Investment restrictions**       | - No more than 10 percent of fund assets may be invested in one issuer's securities, except for state bonds  
- No more than 5 percent of fund assets may be invested in one piece of real estate or movable asset  
- Fund may not invest in more than 20 percent of the securities issued by one issuer | Up to 10 percent of a bank's assets can be invested abroad or in other than publicly traded securities. No more than 5 percent of its assets can be invested in the securities of a single issuer | ... |
<table>
<thead>
<tr>
<th>Types of funds</th>
<th>Private:</th>
<th>Private:</th>
<th>Private:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Czech and Slovak American Enterprise Fund</td>
<td>Austria-Hungary Fund</td>
<td>Pioneer First Polish Trust Fund</td>
</tr>
<tr>
<td></td>
<td>Czechoslovakia Investment Corporation, Inc.</td>
<td>Budapest First Fixed-Income Fund</td>
<td>Polish Private Equity Fund</td>
</tr>
<tr>
<td></td>
<td>Some 400 or more investment funds emerged during the voucher privatization process</td>
<td>COFINCA S.A.</td>
<td>Poland-American Enterprise Fund</td>
</tr>
</tbody>
</table>

| Supervision of investment funds | State administrative authorities as defined by the Czech National Council and the Slovak National Council | State Securities Supervision Board |

Sources: Official government reports and documents; Bloomberg; Business Eastern Europe; Butterworths Journal of International Banking and Financial Law; Central European; Euroweek; Euromoney; International Finance Review; International Financial Law Review; International Securities Regulation Report; PlanEcon Business Report; and Risk.
planned for others. The argument in favor of their introduction is that the transformation from a centrally planned system to a market system implies such large shocks to commodity and asset prices and to interest rates and exchange rates that investors and firms alike need to be able to hedge their exposures to these shocks.

In most instances, markets for trading derivatives are not presently viable in the economies in transition, because of the mechanisms such markets require. The principal use for derivatives contracts by firms is in allowing them to hedge against adverse financial price developments. However, in general the maintenance of a hedge requires the ability to trade both the derivative security and the underlying instrument at short notice and without causing adverse price movements. Therefore, such derivatives can only be effective if there is a highly liquid market for the underlying instrument. For example, there should be liquid spot foreign exchange and money markets. Moreover, these markets rely heavily on settlement and payment systems and bank liquidity to satisfy margin requirements on futures exchanges.

More fundamentally, liquid markets for the government bonds or currencies underlying the contracts are needed to price the derivative securities in the first place. Without a liquid underlying market, investments in these securities would essentially be speculative. Similarly, forward currency contracts are priced from the yield curve on government securities, which requires a liquid money market with a range of maturities.

The danger posed by a premature introduction of these markets is not that they will not be used, but that their use will increase the risk to other parts of the financial system, particularly the banking sector, which is directly linked to the real sector of the economy. If banks are not adept at credit risk evaluation, their involvement in derivatives markets could have serious systemic repercussions.

---

20 In Hungary the Budapest Commodities Exchange and the Budapest Stock Exchange have both introduced futures contracts for U.S. dollars and Hungarian Government bonds. Stock futures and/or options are also traded on the Budapest Stock Exchange and the Bratislava Options Exchange. There are also dozens of commodity exchanges in Central and Eastern Europe, many of which offer standardized derivatives contracts. Finally, financial derivatives are frequently contracted on a bilateral basis between enterprises, although such activity is entirely unregulated.

21 Interbank foreign exchange markets are relatively new in the formerly centrally planned economies, but reasonably liquid markets are emerging in Hungary and Poland and in Moscow. In Hungary, for example, a reference rate for the exchange rate is fixed each morning by the central bank and commercial banks are permitted to exchange currencies at rates 0.5 percent above or below this rate. Daily turnover in May 1993 was approximately $120 million a day.
Role of Financial Institutions in the Transformation in Poland, Hungary, and the Czech and Slovak Republics

Restructuring of Banking Sector

The introduction of central bank legislation and new banking laws marked the beginning of a market-based financial system in Hungary, Poland, and the Czech and Slovak Republics (see Tables 1, 2, and 3 for a summary of the structure of the banking system in these countries). Three objectives can be distinguished: (1) to establish a two-tier banking system by separating central banking operations and commercial banking functions; (2) to provide the central bank with the means to conduct monetary policy and to supervise the banks (Blommestein, 1993a); and (3) to grant greater autonomy to the banks in making lending decisions on the basis of commercial criteria.

Much of the necessary legal and accounting framework for restructuring of the banking sector has been put in place in these four countries. The existing legal framework gives the central banks the basis for issuing regulations covering reserve requirements, liquidity, foreign exchange exposure, lending limits to individual clients, and capital adequacy (see Table 3). However, banks in Hungary, Poland, and the Czech and Slovak Republics continue to face serious structural problems, which are hindering their ability to contribute as competitive market-based institutions to the success of the transformation process, including privatization and the development of the private sector more generally. Credit allocation remains concentrated in a relatively few state-owned banks, which are saddled with large and growing amounts of nonperforming assets—primarily of inefficient and loss-making state-owned enterprises. Bank lending remains biased toward these same firms owing to “captive-lending” relations (Blommestein, 1993a). Consequently, the asset portfolios of the larger state-owned banks (and some of the smaller private banks) are highly illiquid.

In response to these problems, governments have started to take measures for the restructuring of the larger state-owned banks. Banks have been encouraged to increase capital and set aside loan loss reserves from profits (see Table 2). It is a positive sign that the privatization of banks has begun. Nonetheless, most of the state-owned banks remain severely undercapitalized and cannot hope to meet international capital adequacy ratios in the near term using their own resources. In addition, the amount of nonperforming loans is substantial. Table 2 provides official estimates of nonperforming assets for Poland, Hungary, and the Czech and Slovak Republics. Unofficial
estimates are higher. In addition to their financial weakness, banks lack adequate personnel with modern banking skills. Rather than supporting the transformation process, the weak banking system is currently a serious obstacle because of its continued misallocation of capital to the state sector, while crowding out creditworthy new entrepreneurs and recently privatized enterprises. The growth of interenterprise arrears in the region is additional evidence of the adverse incentive structure underlying the disfunctioning of the banking sector. Finally, the underdeveloped and fragile state of the banking system is also hindering the development and functioning of a capital market, including investment funds.

Development of Capital Markets and Investment Funds

The first stock exchange to reopen its doors in Central and Eastern Europe since World War II was the Budapest Stock Exchange, in June 1990. Transactions in treasury bills, corporate bonds, and company shares on the Budapest Stock Exchange are regulated on the basis of the Law on the Public Issue and Trading of Securities, adopted in January 1990. This law established a State Securities Supervision Board to regulate the public issuance of securities and the rights and obligations of security traders to ensure an adequate level of investor protection. The Budapest Stock Exchange started with a two-tier structure: the first tier for listed securities, and the second for unlisted but registered securities. The public offering of Ibusz shares in 1990 was the first major privatization of a Hungarian company through a public offering on the Budapest Stock Exchange (see Apathy (1993) for a detailed account). Although this transaction was an important boost to the development of the Hungarian capital market in its initial stages, the market remained quite narrow and illiquid. This is illustrated by the fact that with about 20 quoted shares, 64 percent of trading in 1991 was in the shares of just three companies. Very few of the companies listed or registered on the Budapest Stock Exchange were the result of a privatization-related flotation. The other companies were new private companies that raised new risk capital to finance expansion. The two major reasons that more companies did not do the same are external funds can be more cheaply and easily raised through debt instruments and the thriving over-the-counter market, and it is not very attractive to raise capital in an illiquid market with volatile price movements. In 1991, the first full year of trading, the Budapest Stock Exchange index went from 1,000 in January, to a peak of 1,200 in March, to about 800, where it remained for much of 1992. In response, the stock exchange authorities launched a
third tier to the market in June 1992, in a move to draw over-the-counter trading onto the market floor. The third tier is meant for the trading of securities that do not meet the full listing requirements but have a newly formulated, simplified set of rules.

The Warsaw Stock Exchange was reopened in July 1992. The legal basis for the Warsaw Stock Exchange is the Law on Public Trading of Securities and Trust Funds, which was passed in April 1991. But some trading in securities—mostly stocks—was already taking place in early 1989, at several quasi-exchanges and as over-the-counter transactions (Szomburg, 1993). The securities law defines the roles of the Securities Commission, the Stock Exchange, the securities firms, and trust funds. It allows banks to undertake brokerage activities provided that their securities trading operations are financially and organizationally separate. By the end of 1992, 23 stock brokerage firms and more than 100 stockbrokers had been licensed. Many of the companies quoted on the Warsaw Stock Exchange are enterprises privatized through an initial public offering. The capital market in Poland is narrow, characterized by high volatility and illiquidity. Since the Polish mass program has not yet been launched, the volume and value of stock trading on the Warsaw Stock Exchange will continue to develop gradually in the near future. In contrast, the government securities market developed fairly rapidly, is relatively liquid, and is underpinned by modern secondary market arrangements. The sophisticated clearing and settlement system for government securities is also used for other securities. To improve liquidity, each listed company nominates a specialist who helps to match buy and sell orders but is not obliged to make a two-way market in the shares.

Capital market legislation for the Czech and Slovak Republics is in place, and stock exchanges began operating in Prague and Bratislava in April 1993. On both stock exchanges, trading is allowed in listed and unlisted securities. In addition, unlisted securities are traded on off-exchange markets, including the computerized RM System developed for the voucher privatization scheme. The major financial institutions—including investment funds—also arrange block trades of unlisted securities among themselves rather than on the exchanges.

It was explained above that special investment funds are intended to play an important role in the mass privatization process of some countries and that both investment funds of the OECD type and so-called hybrid funds are also expected to contribute to the development of capital markets (Table 6). In Poland and the Czech and Slovak Republics, investment funds are to play a threefold role: (1) to allocate vouchers (in the Czech and Slovak Republics) or participation certifi-
cates (in Poland) and to permit portfolio diversification to small investors; (2) to support and strengthen management; and (3) to mobilize capital for restructuring purposes. In contrast, in Hungary, investment funds are primarily designed as conventional investment funds to collect savings from small investors, and no direct role is envisaged for them in the process of privatization. The Polish authorities expect that investment funds will play an important role in both the restructuring and privatization of large enterprises as part of the Polish mass privatization program (see Blommestein (1992); and Szomburg (1993) for details). Indeed, hybrid investment funds are seen as an institutional innovation to speed up restructuring as well as to contribute to more efficient corporate governance in the form of better control and supervision of management performance.

Investment funds in the Czech and Slovak Republics are important in the allocation of vouchers. The 9 largest funds—there are more than 400 altogether—control almost half of all voucher investment points. Thus, the ownership transfer phase of the voucher privatization scheme has been completed. The next phase concerns the transfer of the tradable ownership titles to individual investors and investment funds, that is, the underlying shares in the enterprises. It remains to be seen how the investment funds will behave in their corporate governance role. Some of them (in particular those that are seriously undercapitalized) will probably be under considerable pressure to raise cash by selling on the capital market; this type of investment fund might also behave more like OECD-type portfolio managers. Other investment funds might be more active managing the firms in which they own shares, in particular when they are putting up or raising the capital for the restructuring of the privatized enterprises. Foreigners could not participate directly in the voucher privatization scheme, but they are allowed to buy shares in the secondary market.

Conclusions

The two most important contributions of financial institutions in the transformation from central planning to a market-based system are to maintain a corporate governance mechanism and to provide and allocate capital. This paper has investigated the possible roles of banks, equity and bond markets, and investment funds in performing these tasks. This brief examination suggests that, as weak as they are now in many of the formerly centrally planned economies, the
banks are still likely to be the most important sources of both corporate control and finance.

Therefore, the priority of the authorities in these countries should be the creation of a well-capitalized, competitive banking system—preferably one not complicated by a universal banking structure during the transformation itself—and the simultaneous creation of competent supervisory and regulatory agencies capable of enforcing their prescriptions. In particular, the creation of markets for equity and debt, and certainly markets for derivative securities, should not be an immediate priority of the authorities in these countries.

References


Folkerts-Landau, David, Peter Garber, and Timothy D. Lane, "Payment System Reform in Formerly Centrally Planned Economies," Chap. 5 in this volume.


Mckinnon, Ronald, "Taxation, Money, and Credit in a Liberalizing Socialist Economy," in *The Emergence of Market Economies in Eastern Europe*, ed. by


Comment
Jacob S. Dreyer

My first impulse, after reading Blommestein and Spencer's compact, but nonetheless fairly comprehensive, overview of actual and possible functions of various financial institutions in the present-day formerly centrally planned economies, was to engage the authors in a debate about the merits and demerits of alternative structural models of the financial sector. Although few would quarrel with their observation that neither the banking system inherited by these countries nor their nascent capital markets and institutions are capable of providing the basis for successful transition to a market economy, the particulars of the structure they favor are subject to challenge. We know, for example, that banks need not be the sole source of liquidity, that there are ways of mobilizing financial resources other than through the banking sector, that the desirable structure of corporate governance is certainly not solely, and perhaps even not mainly, a matter of managerial efficiency, that capital markets can be very differently organized in terms of the required supporting institutions, and so on. It can be argued, therefore, that the authors make, at most, a good case for a specific transition path to the financial sector of their favorite design rather than a case for this particular design itself. Consideration of alternative arrangements, for example, of partially substituting the credit provision services traditionally supplied by commercial banks for a combination of securitized short-term debt and instantly redeemable shares in investments pools, would be, in my opinion, most interesting, but is not possible in the short time allotted to me to comment on the paper.

But this is not why I suppressed my initial impulse to comment on the authors' substantive policy prescriptions. To explain why, I must make a brief personal digression.

Digression

After going through the program of this conference, I realized that I am a minority of one among its participants—I toil in the private financial sector. So, to justify my presence here, let me introduce myself by confessing to what I am doing for a living. Broadly speaking, I analyze institutional activity in capital markets and also assist people in forming and operating capital market institutions—mostly pooled investment vehicles, such as investment funds or unit investment trusts—and in setting up supporting facilities, such as transfer
agencies, depositories, registries, custody arrangements, or clearing-houses. The bulk of my client base consists of private financial institutions in developed countries. However, in the last few years, I have spent some time providing technical advice to various entities in the economies in transition. The institutions that sought my assistance were in countries stretching from Warsaw to Alma-Ata and included both quasi-commercial entities, such as Ceska Sporitelna—the largest Czech savings bank—to Russian Government agencies such as the GKI—the State Committee for the Management of State Property. The assignments ranged from setting up underwriting and asset management functions at a bank to evaluating the trading capacity of a stock exchange or the potential profitability of a proprietary computerized trading network. For the sake of full and fair disclosure, I may add that I am conversant in some of the languages spoken in the area.

I am confessing to all these transgressions to emphasize the stark distinction between the perspective of Blommestein and Spencer and my own vantage point. If theirs is a bird’s view, mine is a dog’s sniff. Accordingly, my remaining brief comments both on the issues raised in their paper and the paper itself will be offered from a dog’s vantage point.

Abstraction Versus Reality

To dispense with the obvious, let me state at the outset that the differences in our respective perspectives notwithstanding, I share the authors’ basic assessment of the state of the banking sector and capital market institutions in the formerly centrally planned economies. Similarly, I do not have much to say about their invocations of parallels and contrasts with the operation of financial institutions in developed countries. Their juxtapositions lead one to a noncontroversial conclusion—that uncritical grafting of western arrangements, practices, and procedures onto the existing financial sector in these economies will not be successful.

My main problem with the paper is that it is so remote from reality as to be virtually vacuous in providing useful policy guidelines. If we could start with a tabula rasa, perhaps there would be a point in trying to formulate a neat objective function and a set of constraints and then simulate dynamic paths to see which one generates the highest level of welfare. In such a world the authors may be correct in advocating a particular chronology: first, restructuring of the commercial banks, then, nurtured development of debt and equity markets, formation of investment funds, and so on.
But that is not the world the policymakers face. In Russia, for example, the disastrous state of its banking system requires no elaboration. But there are also dozens of forums, labeled exchanges, for trading commodities and commodity contracts, including some non-standardized oil futures contracts, and financial instruments; hundreds of virtually unregulated brokerage firms; an active interbank debt and foreign exchange market; regional property funds that resemble U.S. venture capital funds and investment pools that resemble closed-end funds that are not yet tradable. In addition, several hundred enterprises are being privatized every month, with the number of shareholders increasing by perhaps a million every month. But there is no infrastructure to accommodate this growth: no third-party registrars, no interconnected depositories, no transfer agency facilities, no meaningful custody arrangements. Fraud, including outright theft, is rampant. Some enterprise managers and managers of regional property funds maintain their own lists of shareholders, thus deterring workers from selling their shares and thereby subverting the very purpose of mass privatization. The securities act is an incomplete compendium of broad proscriptions and mandates rather than a set of enforceable regulations, and, in any event, the newly established Securities and Exchange Commission has no way of monitoring compliance, let alone enforcing the regulations even if they existed.

The authors argue that financial reform must begin with the restructuring of the banking system. Further, they say that “the primacy of ensuring the health of the banking sector does not imply that the development of securities markets, for example, is of little significance.” Now, I wonder what is the exact meaning of this statement, especially to the policymakers, say, at the Russian Ministry of Finance and the GKI who are faced with the situation I have just sketched out.

From my vantage point, the ongoing process of restructuring, reform, and creating financial institutions in these economies is one of crisis management rather than of a carefully designed and orderly implemented transformation. The crisis is more acute at some times and in some places than in others but it is a crisis nonetheless, at least in the sense of requiring quick responses. Contrary to the authors’ recommendations, policymakers in Russia, and for that matter even in the currently more placid economies in transition, cannot delay expanding efforts, energies, and resources to bringing a modicum of order to capital markets or even to fashioning their development until the banking sector is restructured and ready to provide liquidity to securities firms and other services to capital markets.
Dominance of Political Considerations

My second comment on the differences between the optimal hierarchy of priorities and the sequencing of steps as advocated by Blommestein and Spencer and the real-life choices pertains to the dominance of extraneous political imperatives and constraints in the decisions affecting the shape of reform of financial institutions in the economies in transition. To illustrate my point, compare the design of the mass privatization process in Poland and the former Czechoslovakia. In the latter the choice was made to transfer ownership claims from the state to the population rapidly, massively, and irrevocably without apparently much regard for the problems of managing the privatized enterprises that would inevitably arise down the road. In Poland, by contrast, the issues of corporate governance and the implied effective managerial control have been part of the design of the mass privatization program from the beginning. This difference in approaches most certainly did not arise because the Poles wanted to gain some time to restructure their banking sector whereas the Czechs and Slovaks were oblivious to the necessity of having a viable banking sector for the equity markets to operate efficiently. Other policy considerations carried the day.

The Russian decision to mass privatize at a breakneck speed with virtually no infrastructure in place is perhaps the most blatant example of decisions that crucially affect the future structure of financial institutions being made for reasons that have little to do with optimality or efficiency criteria. As a result, the policymakers in the economies in transition and their advisors always have to make their choices among several nth best solutions under constraints that vary from place to place. For this reason, and given the diversity of initial conditions, I do not believe that a generalized and universally applicable "optimal" hierarchy of decisions and chronology of implementation can exist.

To conclude, consider the structure of share ownership in the Czech Republic and Russia or what is likely to emerge in Poland once the privatization vouchers are distributed. In the Czech Republic, where distribution of vouchers preceded bidding for shares of privatized companies, most vouchers were immediately converted into investment fund shares, but very limited consolidation of vouchers in private hands took place. And even though the incidence of equity ownership among the Czechs is extremely high (about three times what it is in the United States), the bulk of this equity is held by a few hundred investment funds. A near complete institutionalization of the market was achieved overnight. In Russia, by contrast, voucher
holdings are being rapidly consolidated by individuals who are buying up these vouchers to bid, among others, for shares of continuously privatized enterprises. The result is a rapidly growing number of owners of shares in individual companies. In addition, of course, all kinds of pooled investment vehicles are springing up, thousands of them. In Poland, consolidation of voucher holdings is also certain to occur. But the number of investment funds accepting vouchers will be limited by licensing to about 15. Unlike the Czech or Russian funds, they will be state sanctioned, their operations will probably be subsidized, and their portfolio choices somewhat circumscribed. Because of just these differences in the structure of share ownership, the pattern of corporate governance in the Czech Republic, Poland, and Russia will be quite different also. So will the structures of their equities markets, which will require rapid creation of supporting institutions with different characteristics, in a different sequence, and at a different pace. Of course, in all cases, well-capitalized and efficiently operating banks are nice to have, but life must go on even without them.
In Russia, financial reform has lagged behind privatization. Concern is now developing that the advantages of privatization may be reduced and the economic recovery slowed by the absence of adequate financial services. Signs of this are already apparent. The payment system has not been able to cope with the expanded number and changed nature of payments. Interrepublican trade has been greatly hampered by payments problems, but payments problems are even apparent in intrarepublican trade where clearance may take weeks.

Payments are simply illustrative. Problems abound in all areas of finance. The growth of interenterprise arrears in 1992 had multiple causes but highlighted the inadequacies of interindustry trade finance. Household savings were traditionally and still are primarily held as deposits in Sberbank. Other banks are dependent on enterprise deposits and borrowing from the Central Bank, leaving them with uncertain sources of funding and a volatile deposit base. Bank credit as a percentage of GDP has fallen very sharply since the end of 1991. Inflation has provided substantial relief to debtor enterprises but at the expense of deposit holders. Because of highly negative real interest rates, banks are not able to mobilize new deposits. Without further credits from the Central Bank, enterprise and household liquidity is at a minimum. Nor does the banking system have the resources to provide large reconstruction credits. Even if the funds were available, the banking system lacks the expertise to judge credit.

---

1 The views expressed should not be attributed to the World Bank, its Board of Directors, its management, or any of its member countries.
risk or to monitor and supervise enterprises to which loans are extended.

Another problem is the structure of the banking system. The large state banks are not true banks, but rather act as conduits for directing Central Bank and budgetary funding to selected enterprises. At the other extreme, 1,600 small, mostly new banks do little more than provide treasury services to their founding enterprises. A large number of banks are either already technically insolvent or will become insolvent when the Government eventually cuts back on subsidies and credit to enterprises. The infrastructure of the banking system is deficient. The commercial banking law has serious shortcomings, the bank supervisory capacity of the Central Bank is minimal, and the banking system does not employ proper accounting standards. The lack of proper accounting standards and adequate disclosure of bank financial statements largely eliminates market discipline from the Russian banking system. In sum, the financial system in Russia is ill prepared at present to serve the newly emerging private sector.

The problems are so serious that various proposals are appearing to establish what would essentially amount to alternative banking systems: for example, the proposal to pass large amounts of foreign assistance for reconstruction through nonbank government institutions or newly established development banks. During the 1970s, governments in developing countries (often supported by the international donors) attempted to use draft measures to develop the real sectors of the economy, at the cost of financial sector development. Experience shows that this procedure was a mistake. Moreover, although the banking system in Russia is behind in terms of preparation for market activity, it may not be far behind. Most of the newly privatized firms will take some time to formulate their strategy, and by the time the firms have well-developed plans for reconstruction, the banks could be prepared to make and supervise loans. The evidence from some of the other East European countries (Poland, the Czech Republic, Hungary) suggests that with the proper incentives the banks can prepare themselves for the market as rapidly as the enterprises. An important reason for a lack of progress in Russia has been the absence of any central authority interested in and able to tackle the problems of financial reform on a systemic basis. We would like to suggest that development of the regular banking system should not be neglected in terms of policy and assistance even though some supplementary institutions may be needed to handle the financing of the largest and most problematic enterprises.

That reforms in finance have lagged behind those in privatization should not be taken to imply that little has changed or that no prog-
ress has been made. The structure of the banking system in Russia has gone through turbulent change over the past five years from the transformation of the monobank into several large state banks and then the breakup of those state banks into many independent banks coupled with the proliferation of new banks sponsored by enterprises. The existence of so many new and small banks is in fact one of the problems. But in other areas change has been more constructive. Considerable effort has gone into drafting new banking and other business laws (most of which are yet to be enacted), developing better systems for financial accounting, preparing plans for payment system reform, training bankers, initiating a system for bank supervision, and developing a program for limited deposit insurance. But even in these areas, although plans have been drafted, little has yet been implemented.

In the early stages of the debate on financial reform in Eastern Europe, the question was raised whether to attempt to restructure, reform, and recapitalize the existing banks or to scrap the existing institutions and establish new banks unencumbered with problem portfolios and bad banking habits. In practice, all of the governments opted to restructure the existing institutions, although some have created new development banks or issued licenses to new commercial banks. Even if an appropriate legal framework could be developed for the Russian banking system, the Central Bank does not now have an adequate supervisory capacity to enforce the laws or monitor the banking system to root out unsafe and unsound banking practices. In part, this is due to Russia having over 1,700 banks—the result of the Government not implementing appropriate licensing standards. After an initial analysis of the situation in Russia, we discussed with the authorities delicensing the many small banks that were acting only as funding agents for their founding enterprises. These banks represented pathological examples of insider lending. The authorities preferred an alternative solution, which has come to be known as the international standard banks program. During 1992, the World Bank worked with the Central Bank of Russia on the development of this program. In the opinion of the World Bank, as well as a number of officials at the Central Bank, this program could make a significant positive contribution to the development of the Russian banking system during these extremely difficult times.

In this paper we will describe the international standard banks program. This program is not a complete program in that it does not directly deal with the three major state banks—Rosselkhozbank, Sberbank, and Promstroibank—which hold roughly 25 percent of the banking system’s assets. Moreover, only by implication does the
paper deal with the smallest 1,600 banks that hold about 10 percent of the system's assets. With regard to these banks, the Government recently raised the minimum capital requirement for banks to 100 million rubles, effective July 1, 1993. Most of these 1,600 small banks have capital that is far below this new requirement. Consequently, unless these banks raise a significant amount of capital very quickly (which is unlikely) or engage in mergers, many of them face the prospect of losing their banking license.

**International Standard Banks Program**

The international standard banks program is a voluntary, incentive-based program that would confer specific benefits on those banks that agree to conduct their operations in accordance with a set of "good" banking standards that are now widely employed in the developed world. The program, which is still in the draft stage, has four primary objectives: (1) to increase the mobilization of resources by the banking system; (2) to improve the allocation of credit by the banking system, primarily by decreasing the present widespread insider lending; (3) to allow the public to differentiate between "good" and "bad" banks—something that the public basically cannot do under current conditions; and (4) to provide the country with a core group of good banks that would become the nucleus of the future Russian banking system.

The proposed program would not eliminate the need to proceed with efforts to improve the infrastructure of the Russian banking system, including needed amendments to the banking law, strengthening bank supervision, improving bank accounting and auditing standards, and upgrading the quality of bank management.

The proposed program essentially consists of three parts. The first part establishes the banking standards that international standard banks would be required to meet. The second involves the development of a package of benefits that would be conferred on these banks. The third part establishes the procedures that the Government—in this case, the Central Bank—would follow in administering the program.

**Standards**

Based on the latest draft, which was completed in late 1992, the international standard banks program would contain the following eight standards:
The bank must have capital of at least Rub 400 million (this amount probably will have to be adjusted upward to account for the inflation that has occurred in Russia in recent months). To avoid excluding good small banks from the program, however, any small bank that could meet all of the program standards except the minimum capital requirement would be granted all of the benefits of the program except the ability to use the designation of an international standard bank.

In addition to the Rub 400 million minimum capital requirement, the bank must meet capital adequacy standards that closely parallel those of the Basle Committee. The capital adequacy standards would require the bank’s total capital to equal at least 8 percent of its risk-weighted assets and off-balance-sheet exposures. One can legitimately question whether an 8 percent standard is sufficient for Russian banks, given current economic conditions in that country. On the other hand, merely getting some banks to an 8 percent standard would represent a major achievement, given the current very low capital ratios of many Russian banks.

The bank would be prohibited from having a risk exposure to any single borrower or group of related borrowers that was in excess of 25 percent of the bank’s capital. In addition, the aggregate amount of all risk exposures to single borrowers that equal or exceed 10 percent of the bank’s capital could not exceed eight times the bank’s capital. Finally, the bank would be required to submit to the Central Bank a quarterly report on its single borrower exposures, as well as the aggregate amount of all large exposures (those equal to 10 percent or more of the bank’s capital).

The bank would be prohibited from having a risk exposure to any single connected party (or parties related to the connected party) that is in excess of 10 percent of the bank’s capital. In addition, the aggregate amount of risk exposure to all connected parties could not exceed 20 percent of the bank’s capital. Finally, all bank credit transactions with connected parties would have to be made on commercial terms, and the bank would have to submit quarterly reports to the Central Bank on credit extended to connected parties. As a matter of supervisory policy, the Central Bank would closely review all connected lending transactions during its periodic on-site bank examinations.

The bank would have to maintain a loan-loss reserve that would be adequate to absorb potential losses from nonaccruing loans. The Central Bank would develop a schedule that relates the amount of reserves required to the length of time that a loan has not been accruing interest.
• The bank must agree to adopt a "code of conduct" that would govern its relationship with its customers. This code, which would be developed by the Central Bank, would be based on the code now used in the United Kingdom. The code would be designed to provide customers with certain essential information about the bank's services and prices and ensure that customers would receive fair treatment by the bank. This fair treatment would include assurance that the bank would handle customer information confidentially.

• The bank must employ proper accounting standards and procedures and must submit reports to the Central Bank that would permit the Central Bank to monitor adequately the international standard bank’s financial condition.

• The bank would have to agree to submit its senior officials to a "fitness and suitability" test conducted by the Central Bank and agree to remove any officials who failed the test. The Central Bank would evaluate the integrity of the officials and their competence to carry out the responsibilities of their present positions. The competence standards employed by the Central Bank would have to reflect the fact that few banking officials in Russia have had the types of experience possessed by banking officials in western banking systems.

• The bank must submit to an annual external audit conducted by a responsible auditing firm. The Central Bank would maintain a list of auditing firms deemed to be qualified to perform high-quality audits. The Central Bank staff believes that this list initially would have to be confined largely to western auditing firms until local auditing firms have gained enough experience to perform high-quality audits.

The above list of standards certainly would not seem formidable to banks in the developed world. But in Russia at this time, these standards would be so demanding that probably only a very small number of banks could meet them. Consequently, one of the major policy questions involved in establishing the international standard banks program is whether to require banks to meet all of the standards immediately, or phase in certain of the standards over time, particularly those standards that almost all banks would have difficulty meeting. For example, it might be reasonable to phase in required capital ratios to give banks time to adjust their operations. Actually, even in the developed world banks were given several years to meet the Basle capital requirements.

**Benefits**

To induce Russian banks to become international standard banks, the program would grant these banks certain benefits that would not
be available to other banks that either would not or could not meet its standards. The development of an appropriate benefits package is clearly the most difficult part in the design of the international standard banks program. The following are the major criteria that should be employed in the selection of individual benefits:

- The benefit should act as a significant incentive for banks to become international standard banks. Also, the total package of benefits should produce approximately the "right" number of international standard banks—enough such banks to create the beginning of a "good" bank sector, but not so many that the Central Bank would be unable to supervise them effectively.
- If possible, each benefit conferred should contribute to strengthening the banking system and improving the allocation of credit through the banking system.
- The benefit should not involve high costs to the Government or present the Central Bank with serious administrative problems.
- The benefit should have no unintended adverse side effects on the financial system or the economy and would not adversely affect the implementation of other important government policies or programs, such as the conduct of monetary policy.

During our discussions with the Central Bank in 1992, it became increasingly apparent that individual benefits could be viewed as falling into three groups. The first group included those benefits that should be explicitly included in the program at the time the program is initiated. The second group included those benefits that might be explicitly included in the program at some later date, if and when future conditions made their inclusion feasible. The third group included benefits that probably could not be explicitly included in the program, either initially or later, but might be extended to international standard banks on an ad hoc basis. For example, if the Government should ever decide to break up Sberbank and sell off its pieces to commercial banks, it might logically give international standard banks preferential access to the bidding process.

Based on extensive consideration of the benefits package, the following is a list of individual benefits that we now favor for inclusion in the international standard banks program:

- Give qualifying banks the sole right to be designated an international standard bank—a designation that the bank could use in its advertising to the public. In our judgment, this designation could constitute the greatest benefit in the program because it would give these banks better access to funding and a lower cost of funds than other banks. In combination, these two factors should allow international standard banks to gain market share at the expense of the rest
of the banking system, thereby increasing the portion of the system that would be in the "good bank" sector.

- Allow international standard banks to borrow from the Central Bank discount window at a lower rate of interest than that available to other banks. This benefit would be logical because international standard banks would expose the Central Bank to less credit risk than other banks.

- Give international standard banks preferential treatment regarding deposit insurance, which has been mandated by Russian banking law. This preference could involve sole access to such insurance, or access on more favorable terms and conditions than those granted to other banks. Again, granting international standard banks preferential treatment would be logical because they would represent lower risk to the insurer.

- Provide that any interbank borrowing by international standard banks would carry a lower risk weighting for calculating the capital requirements of lending banks. This factor should lower international standard banks' cost of funds relative to other banks.

- Facilitate the expansion of international standard banks by granting them authority to branch without applying for supervisory approval. In addition, they would be given preferential access in bidding for any failing banks—a logical procedure because the Government would want good banks to acquire the business of any failing banks.

- Give international standard banks broader activity powers, such as the exclusive right to engage in international banking operations (which now requires a special license) or engage in certain securities activities.

- Give international standard banks preferential access to managerial and operational support funded by the international organizations. This support could include so-called twinning arrangements with foreign banks.

Administration of the Program

The international standard banks program would presumably be administered by the bank supervisor, which in Russia would be the Central Bank. This agency would receive applications from banks desiring to become international standard banks and would have to determine within a specified time whether the bank met the program's standards. If the bank met the requirements, the Central Bank would designate the bank as an international standard bank and
begin to confer benefits on it in accordance with the provisions of the program.

A bank that had been granted the international standard bank designation might subsequently fail to comply with one or more of the program's standards. In this event, the bank would be given a specified period of time, not to exceed three months, to come back into compliance. During this interval, it would be denied all program benefits, except the international standard bank designation. If the bank failed to come into compliance by the end of the period, such designation would be revoked.

Anticipated Results

It is of course difficult to anticipate precisely the results of implementing the international standard banks program. We do not regard the part of the program relating to standards to be a policy variable, except for the possibility of phasing in some particularly difficult standards over a reasonable period of time. But the benefits could be altered to make participation in the program more or less desirable. The objective is to build a workable banking system that could provide needed financial services to the private sector and obviate the need for building a new state-run banking system.

Based on the World Bank's work in Russia over the past year, we believe that there are perhaps 20-30 sizable banks with roughly one-third of the banking system's assets that are already working on strengthening their balance sheets and their banking skills, and some are also trying to reduce their single borrower and connected lending exposure. These banks are the most likely candidates to participate initially in the international standard banks program. Over time, as the international standard bank concept catches on and banks begin to realize that such banks may represent the "wave of the future" in Russian banking, we expect many of the remaining top 100 banks to join the program.

As suggested earlier, we also expect that the benefits extended to international standard banks would allow them gradually to capture market share at the expense of the rest of the banking system, thereby expanding the "good bank" sector. Moreover, if the Central Bank begins to close down some insolvent banks and impose losses on depositors, this could result in at least some "flight to quality"—that is, a shift of business from banks that were not international standard banks to those that were. Although this shift would be somewhat destabilizing, it would be part of the inevitable process of transferring
from a "bad" banking system to a "good" (or at least "better") system. Moreover, a shift of deposits within the banking system would be better than a shift of deposits out of the system and into currency, foreign exchange, or goods—a result that seems likely if the public cannot readily identify good banks.

As stated earlier, the international standard banks program is only a partial solution to the current problems in the Russian banking system. It does not deal directly with the three large state banks nor the large number of small banks that either would not want or would not be able to participate in the program. Therefore, other policies will have to be developed to deal with that part of the banking system, including how to terminate the existence of many of these banks in a manner that would be least disruptive to the banking system and the emerging market economy.

Potential Shortcomings of the Program

In our judgment, there are several potential shortcomings or risks associated with the international standard banks program. First, the program could turn out to be "stillborn"—that is, virtually no banks would choose to participate in the program. To minimize this risk, the benefits package must be made attractive enough to act as a real incentive for banks. In addition, it may be necessary, or even desirable, to phase in some of the more rigorous standards over time, thereby giving banks a greater opportunity to adjust their operations to the new requirements.

Second, although the international standard banks program is largely designed to increase the soundness of the banking system and make credit allocation more efficient, the program by itself would not provide Russian banks with the types of skills necessary to operate an effective banking system. It is to be hoped that at least some foreign banks will invest in, or form joint ventures with, Russian banks and introduce modern bank management techniques. Alternatively, the international agencies and various national governments could provide technical assistance that would upgrade the skills and standards of Russian banks. But even if substantial foreign assistance is forthcoming, the learning process will take considerable time.

A different kind of risk could be created by the international community itself. At this time there is growing interest among the Group of Seven nations in creating a fund that would be used for lending primarily, but not exclusively, to newly privatized enterprises for purposes of reconstruction. This funding, which could amount to as
much as $4 billion, presumably would be dispersed over a two-year period. To put this amount of possible lending in perspective, the total loans in the Russian banking system as of the end of April 1993 amounted to only about $8 billion at current exchange rates. If international standard banks are not included in the programs to handle the funds generated from international sources, they could be marginalized. If they are included, they could be overwhelmed. The banks that might qualify as international standard banks would have only a fraction of the $8 billion of loans currently outstanding in the Russian banking system. Moreover, these banks would have only a small amount of capital. Given the huge credit risks involved in lending in Russia, requiring international standard banks to make large amounts of term loans on an already small capital base would almost certainly result in the failure of many of these banks. Hence our advice would be to limit carefully the role that such banks play in the proposed reconstruction programs, giving due consideration to both their limited capital and managerial capacity.

In targeting the development of the real sector, international lending programs should be aimed as well at developing, and certainly not undermining, the financial system. That should be one of the lessons of past experience. In the rush to help with industrial restructuring, the donor community should not neglect the impact of its programs on the emerging financial system.
Comment

Peter Garber, Carl-Johan Lindgren, and Henry Schiffman

Millard Long and Samuel Talley's paper describes a proposal by World Bank staff for Russia to define certain capital and prudential norms, which, if met by banks, would entitle the banks to be designated international standard banks. Any such bank would gain access to special privileges from the Central Bank, which would primarily improve the cost and quantity of its funding. Such a program is necessary, in their view, because of the inability of the Central Bank to conduct appropriate prudential supervision and the inability of the market to impose discipline. Thus, if there are not sufficient "sticks" to bring banks into compliance with appropriate prudential standards, the Government should offer "carrots" to induce proper behavior. They recognize that this program is not a comprehensive solution for weak banks in Russia; but they estimate that a core group of some 15 banks would cover some one-third of banking assets.

Notwithstanding these views, we intend this comment as a cautionary critique of the international standard banks program. In our view, the potential benefits of the international standard bank proposal are largely overstated, and serious shortcomings mar the scheme as it is currently proposed. We develop this view by considering a list of the most problematic issues.

Supervisory Capability Not in Place

The lack of supervisory capacity, which is the premise for the proposal, is also the reason that the proposal may not be feasible. Loan classification and auditing or accounting standards are not in place, nor are there auditors and bank inspectors to enforce them. This makes banks' financial statements unreliable and capital ratios meaningless. The central banks are not able to determine which banks meet the international standard bank qualifications, and they lack the supervisory and enforcement capacity to identify promptly and to decertify banks whose financial condition has deteriorated. It may be some time before such supervisory capacity is available.

Detrimental Impact of Special Incentives

Giving special incentives (subsidies) such as lower reserve requirements, special access to cheap central bank credit, and greater poten-
tial for branching or acquisition of failed banks would highly distort competition and market development by favoring the international standard banks and increasing the failure rate of other banks. In addition, the differences in applying monetary policy instruments will greatly complicate short-term monetary control.

Implicit Official Approval Already Exists

A process already exists to identify strong, large banks through the selection by the Central Bank of Russia for participation in the Central Bank’s credit auction, the government securities market, and foreign exchange auctions. Thus, any additional informational benefits to the public of an international standard bank program would be small.

Implicit Deposit Insurance

As one of the more important potential adverse consequences, the Government may have to provide increased financial support to weak international standard banks. The seal of approval to international standard banks may be treated as an implicit guarantee of solvency. Such a seal would also complicate if not taint bank supervision, since supervisors might be reluctant to withdraw such status once awarded.

Insufficient Coverage of International Standard Banks

The thrust of the program is to concentrate the bulk of banking business in a few favored banks. Credit allocation and monitoring are usually localized banking activities, however. In countries as vast as Russia, some two dozen banks that may become international standard banks cannot properly serve the whole country, especially in view of relative factor immobility. To withhold international standard bank status from localized banks may taint them sufficiently to increase their funding costs and impede credit allocations to localities.

Lag in Verifying Compliance

It may take a year or more for the Central Bank to verify whether the international standard banks have complied with the new standards and to implement appropriate accounting standards and ade-
quate inspection procedures. During that time, there is no reason to believe that banks with this status would have incentives to conduct business in a sounder manner than banks lacking such status.

All Banks Should Publish Financial Statements

Two of the international standard bank requirements are for banks to adopt western accounting principles and to be subject to an annual audit by approved auditors. Independently of a special program, the supervisor should in any case require all banks to adopt appropriate accounting principles and publish transparent financial statements.1 Those banks that comply would be advised to follow the routine practice in the West of having an independent audit, and they can publicize this fact to gain the attention of the market. A simple publication in a newspaper of a bank's financial statement and the opinion of the auditor, as is common in the West, can substitute for the central bank's imprimatur.2 Financial statements will also indicate liabilities to the central bank that will attest to the central bank's belief that the bank merited credit for such transactions, a fact that the market will be able to determine.

Deposit Shift Could Cause Illiquidity and Failures

Depositors may withdraw funds from banks that are not international standard banks, which could precipitate their illiquidity and failure. The increased deposits in the international standard banks may be invested substantially in loans to the same weak enterprises that are or were the customers of the other banks. The international standard banks must, after all, place the newly deposited funds into earning assets, and the old borrowers will be the most ready sellers of such claims.

1The International Advisory Group on Accounting and Auditing for Banks has endorsed a model plan of accounts for commercial banks in the former Soviet Union that, according to World Bank staff, can be implemented in Russia in 6–18 months.

2Sophisticated market participants will realize that the unqualified opinion of reputable auditors, which will initially be local affiliates of internationally recognized firms, is more significant than an endorsement by the central bank, since central banks are only beginning to develop capabilities in bank supervision and are less skilled at inspection than are experienced auditors.
Bad Banks Have Incentives to Become International Standard Banks

Designation as an international standard bank largely requires a commitment to abide by more stringent prudential rules in the future, rather than conformity with adequate standards at the time of designation. Owners of banks with enough capital to qualify may apply for international standard bank status out of fear of the competitive consequences of not applying, regardless of whether they intend to comply or are capable of complying with the new standards. Banks that lack the minimum capital could manufacture it by financial manipulations through the industrial firms with which they are related. In this way, the flight of deposits into international standard banks mentioned earlier will be accomplished through a reclassification of existing institutions without any change in underlying quality. Moreover, if a sufficient proportion of the existing banks act in this way, supervisory resources would again be diluted, and the prospective benefits from concentrating resources in a few international standard banks would be minimized.

Doubtful Ability to Comply with International Standards

The ability of international standard banks to comply with their commitments also must be considered. Presumably, there will be a phase-in period for compliance with stringent lending limits, including loans to related parties. In many cases, however, the borrowers may be unable to repay or refinance their excessive borrowing from international standard banks, and the international standard banks may be unable to organize lending syndicates to divest a portion of their credit exposures. The provisioning required for international standard banks by such assets, under new accounting rules, could result in negative net worth in some cases and severely impede the attainment of the capital adequacy standards in others. Indeed, the proposal recommends that provisions be based only on the amount of time in arrears, which may result in excessive provisions.3

3The lending limits recommended by Long and Talley may also be too stringent. Limits on individual loans to insiders of 10 percent of capital and 20 percent of capital in the aggregate may be insufficient to accommodate requests for credit by creditworthy shareholder enterprises. Such strict limits also may discourage board participation in banks by qualified officers or directors of shareholders who may have important insights into real sector activity that are useful for a bank.
Finally, the phase-in period of two to three years is too long. An initial requirement to meet the standards should govern the award of international standard bank status. Under the proposal, how would the program treat a bank that indicates its intention to meet the standards but then falls short intentionally or unintentionally? Would compliance be measured half-yearly or yearly, and what would be the sanction for noncompliance? Would international standard bank licenses be tolerated for banks that do not meet the standards?
Revising Financial Sector Policy in Transitional Socialist Economies: Will Universal Banks Prove Viable?

David H. Scott

This paper focuses on efforts under way in most transitional socialist economies to revise and update financial sector regulatory policy. It questions whether the banks that emerge under the new policy framework will be supervisable or prove viable. The paper offers a model of financial sector structure designed to foster the development of a sound banking system.

This paper briefly summarizes the environment in which financial sector policy is being revised. It notes that the extraordinary challenges facing policymakers may significantly influence the shape of the new policy framework and raises the concern that policies designed to promote a sound banking system may be overlooked or sacrificed. It examines in more detail the diverse objectives of policymakers, grouping those objectives into two broad categories: fundamental objectives and transitional objectives. Fundamental objectives, those that are important to long-run economic well-being, include establishing and maintaining the integrity of the payment system and the safety of depositors’ savings and ensuring the functioning of the money markets. Transitional objectives, on the other hand, primarily relate to the immediate task of enterprise restructuring and privatization. A key challenge for policymakers is to design a policy framework that balances inherent conflicts among and between these fundamental and transitional objectives, and thereby promotes achievement of both sets of objectives.

The views expressed should not be attributed to the World Bank, its Board of Directors, its management, or any of its member countries.
The paper observes the tendency in many transitional socialist economies to adopt a policy framework envisioning universal banking, and assesses the consequences of the immediate emergence of financial conglomerates, or banks of the universal type. It questions the potential viability of financial conglomerates pursuing conflicting objectives in the context of limited managerial and institutional capacity, limited capacity for financial market supervision, and extraordinary financial market risks. A policy framework built around such institutions may not achieve policymakers' objectives.

An alternative policy framework is offered. It advocates delaying the emergence of financial conglomerates until skills are developed and market turmoil subsides. Over this transitional period, regulatory policy would assign to banks primary responsibility for achieving fundamental objectives, and would promote the role of nonbank financial institutions in pursuit of transitional objectives. Policy would be designed to promote the financial soundness of the banking system so as to control the potential costs to government of assuring achievement of its fundamental objectives.

**Background**

Policymakers in European and Eurasian transitional socialist economies are confronted with complex challenges regarding both the financial and real sectors of the economy. The financial sector typically is dominated by a limited number of large state-owned banks. The financial condition of the banks largely reflects that of the real sector, which requires restructuring, debt relief, and new investment. Governments wish to transfer ownership of many of these financial institutions and enterprises to the private sector over time, and the privatization process is entangled in organizational and financial restructuring.

While the authorities are attempting to deal with restructuring and privatization, they are at the same time completely overhauling financial sector legislation. New laws relating to banking, central banking, securities markets, investment funds, and insurance will sharply redefine the regulatory policy framework. Supervisory bodies are being established or reoriented and are developing regulations that further redefine the policy framework.

In establishing the new policy framework, policymakers are striving to achieve divergent, often conflicting, objectives. Prominent among them are those dealing with the challenges of administering and financing the transition. For example, in the face of insufficient
fiscal resources and limited available private capital, the authorities may directly or indirectly tap the state-owned banks for needed finance. These banks may be asked to play significant roles in enterprise restructuring and in enterprise privatization. More generally, they may be called upon to take the lead in financing and administering the development of the capital markets. As the challenges of transition are likely to be viewed as priorities by policymakers, there is a risk that transitional objectives such as these will be major determinants of the emerging policy framework. More fundamental objectives geared toward fostering a sound banking system that lays a foundation for higher and more stable long-run growth may be overlooked or sacrificed.

Objectives of Bank Regulatory Policy

Regulatory policies governing banking systems reflect diverse and conflicting objectives. It is common for countries to adopt certain fundamental objectives relating to the role of banks in a modern economy. Beyond these, governments frequently adopt ancillary objectives, such as those directing finance to certain sectors or enterprises. In the context of economies in transition, these ancillary objectives often relate to the challenges of transition.

Fundamental Objectives and Financial Soundness

The achievement of certain fundamental objectives of bank regulation can serve as a foundation for economic stability and growth. These fundamental objectives include safeguarding depositors' funds and thus promoting confidence in the financial system; precluding systemic threats to the payment system; ensuring orderly implementation of monetary policy; and promoting efficient intermediation.

In the transitional environment, banks are the major deposit-takers, the only participants in the payment system, and the dominant players in the money markets, on which implementation of monetary policy depends. Therefore, the authorities can achieve many of the fundamental objectives by ensuring the financial soundness of the banking system. A financially sound banking system is one comprised predominantly of solvent and liquid banks. Depositors' funds are safeguarded by the ability of the system to absorb the losses of banks that become insolvent. The ability of the system to settle its obligations eliminates potential threats to the payment system and the money markets. When the banking system is financially
sound, the need for extraordinary intervention to support the solvency or liquidity of banks is minimized. Required interventions can be effected within the normal operating authority and capability of the central bank or deposit protection scheme.

Financial soundness is jeopardized when the risks incurred by banks are excessive in relation to their capital. Usually excessive risks arise from intermediation; resources are poorly allocated and loans are not repaid. Without systemic financial soundness, the system is unable to meet the collective obligations of its members to depositors and money market creditors. The payment system and the money markets can be compromised. Moreover, distorted incentives in the relatively larger number of troubled banks will threaten the overall efficiency of intermediation.

When the banking system lacks the financial capacity to meet its collective obligations, achievement of many of the fundamental objectives can only be assured through extraordinary intervention; the authorities must step in to fulfill the obligations of failing banks. In practice, governments or central banks almost invariably fulfill failing banks’ obligations to other financial institutions for payment system settlements, including the settlement of maturing money market transactions, to prevent an individual bank’s failure from triggering systemic collapse. And with only somewhat less frequency, payments are made to depositors on behalf of failing banks. Lacking systemic financial soundness, the interventions required can be frequent and sizable.2

Transitional Objectives

Policymakers understandably pursue objectives in addition to those noted above. Some transitional objectives may be consistent with the financial soundness of the banking system, but others may not be. Among the most common, often conflicting transitional objectives are ceasing financing and liquidating nonviable firms; continuing to provide quasi-fiscal finance to less than creditworthy borrowers to minimize unemployment; working with enterprise managers to develop restructuring proposals and supporting those proposals by writing-off and restructuring enterprise debts and lending for new investment; participating in the privatization of enterprises by financ-

---

2The authorities may attempt to avoid a permanent transfer of resources by supporting the liquidity of failing banks. But with limited exceptions, what is intended to be temporary liquidity support evolves into permanent solvency support and results in a higher long-run cost.
ing the purchase of enterprises by the private sector, acquiring enterprises on behalf of customers (for example, via mutual funds), acquiring enterprise equities as portfolio investments, and underwriting share offerings; and supplying the capital base necessary to support development of the capital markets industry, and perhaps the insurance industry.

Many of these transitional objectives involve capital market activities for which there is little recent precedent in most transitional socialist economies.

**Balancing Conflicting Objectives**

In designing financial sector policy, policymakers must reconcile the manner in which conflicting objectives are to be achieved in a modernized financial sector structure. To avoid destabilizing interventions, policymakers must balance the desired role of banks in fulfilling fundamental and transitional objectives with the goal of maintaining the financial soundness of the banking system. A key factor in making this trade-off is the role that bank supervision can be expected to play. Supervision might be relied upon to ensure the financial soundness of the system regardless of the risks inherent in the policy framework. But experience demonstrates that bank supervision is often excessively relied upon to preclude problems whose root is poor or overly ambitious policy.

In the environment of economies in transition, bank supervision will evolve slowly, and must not be relied upon as the means to maintain financial soundness. Without effective supervision, it is the policy framework itself that must be designed to offer a reasonable expectation of engendering a financially sound banking system. The policy trade-offs involved might imply sacrificing some price efficiency in intermediation (a fundamental objective) to support higher risk-adjusted returns that can contribute to bank financial soundness. Further, they might imply limiting the role of banks in riskier financial market activities, many of which are inherent in the transitional objectives.

**Financial Sector Structure**

The new policy framework will largely reshape financial sector structure in transitional socialist economies. It will define permissible types of financial institutions, determine the range of activities in which each type can engage, and govern ownership and control of
financial institutions. What emerges as the new structure of the banking and financial systems will significantly influence the means by which the fundamental and transitional objectives of bank regulation are to be achieved.

Financial sector structures in the world’s largest financial markets serve as important models for policymakers in transitional socialist economies. In those markets, clear trends have been evident over the past few decades. These countries have seen an erosion of the historic distinctions between different types of financial institutions and financial products, and the easing of many regulatory barriers to activities outside financial institutions’ traditional lines of business. The result of these trends has been the emergence of diversified financial services conglomerates that can conduct a broad range of financial activities, including commercial banking, securities, funds management, and, most recently, insurance.³

In many transitional socialist economies a tendency exists to adopt a financial sector structure that entails the immediate emergence of financial conglomerates, in universal bank form or otherwise. This tendency not only reflects developments in the largest markets, but is also consistent with the existing high degree of concentration in financial sectors in economies in transition, where large state-owned banks dominate the financial system. Policymakers may attempt to ascribe to these banks virtually all roles in the recast financial sector. The intent of this section is to assess the consequences of a financial sector structure envisioning the immediate emergence of large financial conglomerates that play extensive roles in all financial markets. Is this path consistent with achieving the varied objectives of regulatory policy?

By definition, banks have a key role to play in fulfilling the fundamental objectives. If banks can be put on a financially sound footing, and can maintain their financial soundness, most fundamental objectives of bank regulation are likely to be achieved without further extraordinary government intervention.⁴ Limited government resources can be directed toward other uses. On the other hand, if

³This paper defines a financial services conglomerate (or more succinctly, a financial conglomerate) as any financial institution that conducts more than lending and deposit-taking, whether directly or through subsidiaries. One form of financial conglomerate is the truly “universal” bank, which conducts the full range of financial activities in a single legal entity. In another form, certain activities (most commonly insurance underwriting) are conducted through subsidiaries. Still another variant is where the parent is not a bank, such as in a holding company structure.

⁴This paper does not address the extraordinary government intervention required to recapitalize insolvent banks and thus put banks on a financially sound footing initially.
financial sector structure is to be based on financial conglomerates, the existing banks will form the core of these conglomerates, and those banks will be relied upon to play the lead role in pursuing transitional objectives. Should this role impair banks' financial soundness, governments may be forced unexpectedly into extraordinary interventions to meet the obligations of failing banks, at a potentially destabilizing fiscal or monetary cost. Moreover, the failure of such banks would likely jeopardize achievement of transitional objectives by threatening the operations of the fledgling capital markets and disrupting key components of the bank and enterprise privatization process. Therefore, in adopting a policy framework allowing the immediate emergence of financial conglomerates, policymakers must be aware of the incremental obstacles to potential bank viability inherent in such a structure.

**Key Issues for Viability of Financial Conglomerates**

With the evolution of banks into financial conglomerates, they will be expected to pursue transitional objectives by participating in the financing and administration of the restructuring and privatization of enterprises. The resulting expansion in the scope of activities of banks and the wider variety of risks they incur must be evaluated in the context of (1) managerial and institutional capacity and (2) the capacity for effective financial market supervision.

**Managerial and Institutional Capacity**

Probably the most important determinant of the soundness of a financial institution is the quality of its management. But with few exceptions among transitional socialist economies, bank managers have little experience running large financial organizations subject to market forces. Their ability to evaluate comprehensively financial and operational risk is not well developed. An expansion of banks' scope of activities and riskiness will magnify the challenge facing management. Large, diverse financial conglomerates may be inconsistent with existing management capacity.\(^5\)

The task facing management is exacerbated by banks' lack of institutional capacity. Accounting and data processing systems are not in place. Internal controls exist only in piecemeal fashion. Management

---

\(^5\)The quality of management will be influenced by incentives arising from the nature of bank ownership. Sound management may be threatened where policymakers permit controlling ownership of financial conglomerates by nonfinancial firms.
information systems are rudimentary, and their reliability is compromised by the lack of accounting and internal control integrity. As a consequence, institutional capacity may not adequately support existing operations, much less a substantial expansion of banks' activities. Management's efforts would best be employed reorienting banks' policies, procedures, and processes toward basic banking operations in a market economy.

If policy precipitates an expansion of banks' activities, the greater number of customer classes and the wider range of roles played by banks in the financial markets will increase the extent to which they confront situations involving potential conflicts of interest. Conflicts will arise between the interests of the bank and its customers, and between various classes of customers (such as depositors, trust beneficiaries, securities purchasers, borrowers, and securities issuers). Conflicts of interest pose substantive operational risks that are normally contained by rather sophisticated institutional procedures intended to segregate information flows and decision-making responsibilities. Such procedures do not exist in banks in economies in transition and will not easily be adopted. As a result, the operational risks arising from the greater incidence of situations involving conflicting interests may threaten the integrity and potential viability of banks.6

To fulfill transitional objectives, banks will be asked to participate extensively in the capital markets. Although some capital market activities may be viewed as roughly equivalent to traditional bank lending activities (for example, investment in bonds), extensive participation in the capital markets, and particularly the equity market, will expose banks to new and substantial risks. Equity holdings are more difficult to value than are loans or bonds, and their values are more volatile.7 Beyond the difficulty of valuation, equity holdings give rise to substantial, perhaps unmanageable, interest rate and liquidity risks.8

---

6 The incidence and consequence of conflict situations will be greater still if policymakers permit controlling ownership of financial conglomerates by nonfinancial firms.

7 Assessing the value of a performing loan requires a determination that sufficient cash flow will continue to be generated to service the debt over its life. Assessing the projected value of the borrower's equity over the same period cannot be accomplished with any comparable degree of certainty. Even an assessment of a nonperforming loan supported by collateral is more assured. Only with an unsecured nonperforming loan is the task of evaluation comparable to evaluating the equity of the firm.

8 If equity holdings exceed the bank's capital, they may be funded by interest-bearing liabilities. No ready means exists to manage the resulting interest rate exposure. Similarly, a portfolio of equity securities in a transitional socialist economy is likely to be illiquid.
In pursuing transitional objectives, banks may be left with sizable direct equity holdings—the consequence either of the conversion of enterprise debt into equity or of the acquisition of equities during the privatization of the enterprise. Banks also may find themselves indirectly exposed to equity risks where they finance the acquisition of state-owned equities by managers or other private sector investors, and when they sponsor equity mutual funds. These exposures, beyond presenting substantial financial risks, will compound the demands placed on bank management and will exacerbate the incidence of conflict of interest situations. If bankers are asked to play the role of shareholder in nonfinancial firms, they are distracted from the major task of establishing and managing soundly functioning banks. If banks are asked to play the role of investor, underwriter, distributor, and funds manager in the equity securities markets, the potential for corruption and abuse of conflicts of interest will be substantially increased.

Supervision Capacity

The capacity for effective financial sector supervision in most transitional socialist economies is limited. Managers of supervisory agencies are struggling with organization, recruitment, and training. Some have inherited a large complement of unqualified individuals. Others are starting from scratch. Where the agency is part of the central bank or finance ministry, these efforts take place in the context of the reorganization of much larger institutions with diverse and conflicting goals. In most cases, supervisory processes have yet to be developed. The procedures and processes necessary for off-site analysis, on-site inspections, enforcement, and failure resolution are not in place.

The difficulty in achieving effective supervision is compounded by the state of development of banks and the financial markets. Since accounting and management information systems are poor and lack transparency, supervisors cannot rely upon the routine availability of accurate information on individual transactions or overall risks. Since the financial markets are underdeveloped and subject to many distortions, assessing the riskiness of transactions is difficult. Since ownership of many assets is changing, and shareholdings in bearer form are common, supervisors are hard pressed to determine linkages among banks, managers, major shareholders, and related nonfinancial firms. Under conditions such as these, the ability to supervise banks effectively is limited.
An expansion of the scope of banks' activities at this time will exacerbate the demands placed on the agency responsible for effecting the consolidated supervision of the institution, regardless of the precise form of financial conglomerates envisioned in each country.\(^9\) For example, where policy permits universal banks, bank supervisors need either to supervise all financial services activities or to oversee the work of specialized functional supervisors responsible for supervising certain activities conducted by the universal bank. Where policy requires that banks conduct some activities through subsidiaries, the bank's exposure to risks incurred by its subsidiary cannot be limited to its investment in that subsidiary.\(^10\) Again, bank supervisors need to either supervise the subsidiary directly or oversee the work of specialized functional supervisors. Finally, where the conglomerate is so structured that the parent is not a bank, the exposure of banks to risks run by nonbank financial institutions within the conglomerate would be constrained by "fire walls" intended to limit access by nonbanks to the capital of the bank. But in practice such fire walls are not likely to be effective, and again the bank supervisors have to oversee the work of other supervisors.\(^11\)

As the scope of activities and the diversity of banks expand, the nature of bank supervision changes. It has been the experience in the larger financial markets that supervisors can rely less on prudential rules to control overall risk adequately in financial conglomerates. Supervision of these diverse institutions is more dependent on qualitative assessments of institutionalized risk management and control systems, and on assessments of capital adequacy in terms of the reported and perceived overall riskiness of the institution.\(^12\) But as noted, such systems generally do not exist in banks in economies in transition. This lack of information integrity and transparency will preclude supervisors' ability to assess the overall riskiness and financial condition of the conglomerate. In contrast, banks operating in a limited number of markets or with a limited role in those markets can be supervised more readily by the application of prudential rules.

---

\(^9\)The principle of consolidated supervision is a basic tenet of internationally accepted bank supervision practice.
\(^10\)In times of crisis, banks usually are compelled to extend additional credits to the subsidiary.
\(^11\)Considerable skepticism exists about the potential effectiveness of fire walls in the larger financial markets; fire walls tend to break down just when they were designed to become operative. In the words of a prominent U.S. bank supervisor, fire walls become "walls of fire."
\(^12\)The adoption of an international standard for capital adequacy by the Basle Committee on Banking Supervision was a significant first step in this direction.
designed to limit risk and ensure the maintenance of a certain level of liquidity, reserves, and capital. Determining compliance with prudential rules can be accomplished by supervisors who have a basic level of training and experience. Thus, the rapidity with which effective bank supervision is implemented can depend substantially on the nature of the banks to be supervised.

To conclude, the design of financial sector policy should promote achievement of both fundamental and transitional objectives. There are numerous substantive obstacles to the prospective financial soundness and viability of financial conglomerates in the environment of economies in transition. Effective bank supervision cannot be relied upon to prevent problems that may arise as banks attempt to assume a vastly expanded role in the financial sector. Given these constraints, a strategy that envisions the immediate emergence of large, diverse financial conglomerates and that relies on those institutions to achieve all financial sector objectives may prove unsuccessful. Policymakers might best consider alternative financial sector structures.

An Alternative Approach to Financial Sector Policy

This section proposes an alternative approach to developing the financial sector during the early years of transition. In broad terms, this approach would promote the role of banks, funded primarily by deposits, in achieving the fundamental objectives, and the role of nonbanks, funded with liabilities other than deposits, in achieving transitional objectives. After some time, the roles of both sets of institutions could converge.

The policies proposed here could be effected under a variety of legal arrangements. Particularly where financial sector legislation has yet to be revised, they could be reflected in the new legislation. Alternatively, they could be largely proscribed under the prudential rules adopted by supervisors, provided that the legal framework empowers bank supervisors to restrict the scope of operations of new banks and to narrow the scope of operations of existing banks. As such, this policy framework can be compatible with legislation permitting financial conglomerates and banking of the universal type. In effect, it would guide the manner in which such institutions emerged.

Nature and Role of Banks

Policy with regard to banks would aim to achieve the fundamental objectives by promoting the financial soundness of the banking sys-
tem, thereby minimizing the potential for required extraordinary government interventions. Through the use of strict licensing procedures, only a limited number of banks would be permitted. Banks would be granted the exclusive right to raise funds through instruments labeled "deposits." Deposits would be protected by a government-backed protection program. It would be mandatory for the savings and transaction accounts of households to be covered by the deposit protection program, and thus banks would have the exclusive right to offer such accounts to households. Banks and the central bank would share responsibility for ensuring the integrity of the payment system settlement process. Prudential rules would limit the risks banks could run and require the maintenance of relatively high liquidity, reserves, and capital. (The appendix provides a detailed listing of sample prudential rules.) Adherence to prudential rules and sound banking practice would be closely supervised. Ownership and managerial linkages between banks and nonbanks, both financial institutions and enterprises, would be initially restricted.\(^{13}\)

Policy would strive to balance the trade-offs involved in permitting banks to play as great a role in transition as is consistent with financial soundness. This trade-off is most important when determining the role of banks in corporate finance. Corporate lending in the environment of economies in transition is highly risky. To foster sound lending, loan portfolios must be well diversified, mostly secured, and mostly short term. Prudential rules would mandate such practices. Loan diversification would be promoted by applying a relatively conservative, large exposure limit.\(^{14}\) Other prudential rules would establish conservative collateral and maturity requirements. As a consequence, the banks' role would be to offer primarily secured working capital finance to small and medium-scale companies. Credits to larger borrowers could be arranged on a consortium basis. By utilizing the best available credit skills, such lending might be conducted without systematically jeopardizing financial soundness.

\(^{13}\)The small cooperative institutions encountered in most transitional socialist economies would have to form and be members of one of a limited number of "central institutions," each of which would be licensed and regulated as a bank. The central institution would clear and settle payments for its members, act as lender of last resort, provide technical assistance, and bear responsibility for their prudent operation. Although cooperatives would have the same powers as banks, their activities might be restricted either by the central institution or by the bank supervisors.

\(^{14}\)Large exposure limits, or lending limits, establish the maximum amount that a bank can lend to a single obligor or related group of obligors. The limit is typically expressed as a percent of the bank's capital. See the appendix.
Banks would provide a safe place for those who are averse to risk to maintain their deposits in virtually unlimited amounts. The fundamental objective of deposit safety would be assured through government backing of a deposit protection program. The essential characteristics of the program are that it should apply to all banks, that its coverage limits should be relatively high, and that it should have unequivocal government backing. To reflect the value to depositors of the protection provided by the government, and to minimize moral hazard, interest rates payable on bank deposits would be regulated. Deposit interest rates generally would not exceed those on government paper of comparable maturity. Moreover, deposit interest rates might be held to slightly negative real terms, in part to promote the growth of nonbanks.\textsuperscript{15}

Banks would be permitted to conduct only limited activities in foreign currencies. Funding and investment in foreign currencies would be subject to conservative limits on open positions (precluding mismatches in currencies and in time). If banks are not required by regulation to on-lend foreign currency deposits to the central bank, permissible foreign currency investments would be prescribed. Lending in foreign currency would be limited to borrowers that clearly generate sufficient foreign currency revenues to service the debt.

The banks' role in the capital markets would be limited. Banks would be permitted to invest in, trade, and lend against government securities. They would be permitted to invest in corporate debt securities, subject to the exposure limits applicable to lending, and to lend to securities firms against such securities issued by third parties. Investments in or lending against equities would be permitted only in exceptional circumstances. Banks could take equities as part of the renegotiation of bad debts provided that the equity was booked at a nominal value and was sold within a short period. Underwriting, distribution, and trading of corporate debt or equity securities would be prohibited. Banks would not be permitted to offer pooled investment management services (for example, mutual funds).\textsuperscript{16} With the prior approval of the relevant supervisors, banks could play certain fee-based agency and advisory roles, such as acting as corporate advisor on capital market transactions, serving as a depository for mutual

\textsuperscript{15}This paper presumes that the government will protect most deposits, even where no explicit coverage exists. Adopting explicit deposit protection coupled with interest rate regulation for protected accounts is an equitable means of passing on to depositors part of the cost of this protection. The value of such protection might be great given the level of financial market risks, conceivably justifying negative real interest rates.

\textsuperscript{16}Individual fiduciary services could be offered.
funds, or engaging in securities transactions on an agency basis at the request of a customer. Given these restrictions, banks would play virtually no formal role in the management of enterprises and would fulfill only administrative roles in enterprise privatization.

The banks' role in the insurance market would be limited. They would not be permitted to underwrite insurance. With the prior approval of the bank and insurance supervisors, they would be permitted to distribute insurance products underwritten by others for a fee.

Additional prudential rules would serve to limit riskiness and ensure sufficient capital. Rules limiting interest rate mismatches would minimize the interest rate risk incurred by banks. Rules requiring maintenance of minimum levels of liquid assets would foster liquidity and serve as a trigger point for supervisory attention. To minimize the risk of insolvency, banks would be subject to high provisioning requirements and high capital ratios.

Part of the earnings necessary to generate reserve and capital formation would be derived from the indirect subsidy banks receive from the government's protection of bank deposits, on which relatively lower rates of interest would be paid. The benefits of this low-cost funding base would accrue directly to the banks, and no policy constraints would attempt to pass these benefits on to certain classes of borrowers. The higher spreads would enable banks to build high mandatory provisions and capital, and to generate sufficient returns on capital. Consistent with the goal of financial soundness, tax policy would promote the accumulation of provisions by banks.

As a consequence of this policy approach, banks would be simpler and thus better matched to the skills of managers and institutional capacity. Limits on banks' scope of activities would reduce the incidence of conflicts of interest and promote increased transparency. Rules designed to preclude direct or indirect exposure to equity markets would preclude many potential conflicts of interest, prevent the assumption of substantial financial risks, minimize the potential for systemic losses in the capital markets from spreading to the banking sector, and reduce the burden on limited managerial resources arising from the banks' role in enterprise governance and management.

Under this policy approach, bank supervision can rely more upon the application of basic prudential rules regarding asset riskiness and diversification, liquidity, provisioning, and capital, and less on the qualitative assessments necessary to gear capital requirements to the

---

17 Simple asset-based liquidity rules will likely prove sufficient, at least until the money markets develop further.
perceived riskiness of more complex institutions engaged in a wider range of activities. With a modest skill base, bank supervisors are likely to be able to make substantial progress in achieving effective supervision. To support early implementation of effective bank supervision, banks would have to be audited annually by independent and competent auditing firms acceptable to the supervisors. The auditors would initially focus on the development of sound accounting practices and internal controls, would be required to perform standardized testing to determine compliance with prudential rules, and would play a role in assisting the bank in implementing corrective action when violations of law or noncompliance with prudential rules were detected. With this cooperative approach, the banking system is more likely to be effectively supervised within a reasonable time.

_Nature and Role of Nonbanks_

Although banks would be limited in number and highly regulated, policy would promote the proliferation of nonbank financial institutions, some forms of which would be subject to little or no regulation. Nonbanks could conduct any type of financial service activity, except that they would not be permitted to fund themselves through instruments labeled "deposits." These institutions would not be permitted to use the word "bank" in their title; rather they might be known legally as "finance companies," "industrial loan companies," "trust companies," "mutual funds," "private investment companies," "insurance companies," etc.18

Nonbanks would be permitted to raise retail funding, provided that retail interest-bearing funding takes the form of "investment certificates" or similarly labeled instruments having a fixed maturity of at least one month. The funding of nonbanks would not be covered by the government-backed protection program, and explicit notification that the instrument is not protected by the government would be required.19 Interest rates would be set by the market, serving both to promote the emergence of nonbanks and to minimize any adverse...

18 The fundamental role played by insurance companies may more closely parallel that of banks, and thus insurance companies should be subject to specialized regulation and supervision. Insurance company regulation and supervision are not addressed further in this paper.

19 To promote this policy, nonbanks that accept interest-bearing funding might be required to use standardized or preapproved contracts that clearly differentiate the instrument from a bank deposit.
consequence on savings mobilization arising from interest rate restrictions on bank deposits.

Nonbanks would be granted considerable latitude in financial market activities. Nonbanks that deal only with wholesale customers (including enterprises), or that accept funding from a limited number of individuals, would be virtually unregulated. Nonbanks that solicit funding from individuals more broadly would be subject to regulation and to varying degrees of supervision. Supervision could in many cases be organized around self-regulatory arrangements designed to promote acceptance of various types of institutions by investors. Generally, entry-level capital requirements would be minimized to promote the emergence of nonbanks.

Policy would promote the role of nonbanks in achieving transitional objectives. For example, nonbanks would be expected to play a major role in enterprise privatization, primarily by sponsoring open- and closed-ended mutual funds, or similar such vehicles, that solicit funds for investment in the shares of newly privatized enterprises. The regulation of such entities would focus on adequate disclosure, particularly with regard to any conflicts of interest, and fair marketing practices. Open-ended funds would be subject to diversification rules.20 Nonbanks similarly could solicit funds for long-term investment lending to enterprises, perhaps by purchasing convertible or equity-linked bond issuances. Nonbanks would be expected to function as stockbrokers and would operate stock exchanges.21

Nonbanks could offer payment services to corporate entities. However, most nonbanks would have to settle their payment transactions through a bank. Only certain individual nonbanks would be permitted to settle directly, subject to the approval of the central bank and representatives from the bank-based organization responsible for managing the settlement process.

**Relationship of Banks, Nonbanks, and Government**

A key challenge in balancing the achievement of fundamental and transitional objectives under this policy framework is to prevent losses incurred by nonbanks from either jeopardizing the financial soundness of the banking system or being so large that direct government intervention is required on behalf of failing nonbanks. Several

---

21 Since banks would not be permitted to be clearing members of stock exchanges, by implication, government securities would not be traded on stock exchanges under this policy framework.
policies are critical in achieving this balance. First, the customers of failing nonbanks would be expected to bear fully the losses associated with that failure. Second, policy for nonbanks would try to limit market concentration to minimize the potential that a nonbank grows so large that its imminent failure would itself represent a systemic threat requiring extraordinary government intervention. Third, most ownership and management linkages between banks and nonbanks would be precluded, both to minimize direct financial and moral linkages between them and to ensure arm's-length decision making on transactions. Finally, all bank transactions with nonbanks would be subject to the same exposure limits that apply to corporate entities.22

Despite these policies, a considerable volume of bank/nonbank transactions will occur. Banks will need to settle payment transactions for nonbanks and will likely engage in substantive money market transactions with nonbanks. Banks may have to cover the potential illiquidity of nonbanks. These advances, in addition to other credit exposures, would be at risk if the nonbank became insolvent. The insolvency of nonbanks can potentially lead to the insolvency of a bank and threaten the financial soundness of the banking system. Therefore, an important function of banks would be to monitor their credit exposures to nonbanks and to promote the prudent operation of their nonbank clients. Initially at least, banks might insist that most operations with nonbanks be conducted on a secured basis.23

After managerial and supervisory skills are developed, the financial markets become better established, and market turmoil subsides, cross-ownership restrictions between banks and other financial institutions could gradually be lifted to allow the emergence of diversified financial services conglomerates. At the same time the activities of the various supervisory agencies would have to be harmonized to ensure the consolidated supervision of those institutions.

---

22 With possible exceptions for short-term money market transactions.

23 For example, clearing and settlement conducted on behalf of nonbanks could be supported by pledged government securities.
Sample Prudential Framework for Banks

This prudential framework reflects the policy proposals set forth in the paper. It is designed to promote the financial soundness of the banking system over the transitional period, defined here as five years, by limiting banks’ overall riskiness and promoting the maintenance of adequate levels of reserves and capital. This framework would be established by legislation and the rules of the supervisor.

Financial Sector Structure

- Banks would constitute a clearly defined and delineated class of financial institution. Ownership of banks by other legal entities (or related individuals and legal entities) would be limited to 25 percent of the bank’s shares. Some exceptions to this limit might be permitted, such as for ownership by a well-supervised foreign bank. After five years, this limit would be phased out for ownership by other financial institutions.
- Banks would be allowed only limited ownership interests in nonbank financial institutions, such as securities, funds management, and insurance companies, primarily to facilitate divestitures that might be required for banks to conform with the regulatory policy framework outlined in this paper. Investments in and loans to such companies would be limited to 10 percent of bank capital for each institution, and 25 percent in aggregate. The ownership interests of a bank would be limited to 20 percent of the nonbank institution’s capital. Directors and managers of banks could not be employed by or serve as directors of nonbank financial institutions, and vice versa. These limits and restrictions would be phased out after five years.
- Investments in and loans to nonconsolidated nonbank financial institutions would be deducted from capital when assessing compliance with the minimum capital standard.
- Banks would be prohibited from investing in institutions whose shares are in bearer (nonregistered) form.
- Banks’ shares would have to be issued in registered form.
- Banks would require the prior approval of the supervisors to invest in nonbank financial institutions, to open new branches, and for all merger and acquisition transactions.
Credit Risk and Asset Powers

Generally, banks would be permitted to hold a diversified portfolio of small and medium-scale corporate loans and consumer loans.

- The large exposures limit applicable to each obligor (or group of related obligors) would be 15 percent of banks' capital, with a 5 percent sublimit for unsecured lending. A phased-in increase to 25 percent and 15 percent, respectively, would begin after five years. Qualifying collateral would be defined and would include current accounts receivable, current inventories, and, for securities firms, corporate bonds issued by third parties.

- The sum of all per-obligor credit exposures in excess of 10 percent of banks' capital would be limited to 400 percent of banks' capital. A phased-in increase to 800 percent would begin after five years. All such exposures would be reported periodically to the supervisors.

- Lending for the construction or acquisition of commercial and industrial real estate would be subject to an aggregate limit of 200 percent of banks' capital. Conservative maximum loan-to-value limits would be established for all forms of real estate lending.

- The holding of equity securities of nonfinancial firms would be prohibited except when taken to satisfy previously contracted debts. Such holdings would be booked at a token value, unless traded on a regulated stock exchange, in which case they would be booked at the lower of cost or market. Such holdings would have to be divested within one year.

- The financing of the purchase of shares by customers would be limited to 50 percent of the cost of the shares (that would have to be held as collateral), and limited in aggregate to 50 percent of banks' capital. Aggregate financing for the shares of any one firm would be limited to 25 percent of the firm's shares.

- Lending to managers, supervisory board members, and shareholders would be limited to an aggregate limit of 10 percent of capital.

---

24 Including similar instruments otherwise defined legally as securities or financing leases.
26 Under a proposed directive of the European Commission (EC), large exposure would be limited to 25 percent of banks' capital. The EC does not propose a sublimit for unsecured lending.
27 The proposed EC limit is 800 percent.
28 Where cost is equivalent to the nominal amount of debt written off.
• Underwriting, distribution, and trading of corporate debt and equity securities would be prohibited.

**Capital Market Activities**

• Pooled investment management would be prohibited. Banks could offer such fiduciary services only on an individual, segregated basis.
• Prior approval would be required to offer advisory services, act as depository for mutual investment funds, or conduct agency transactions on behalf of customers.

**Insurance Activities**

• Underwriting insurance products would be prohibited. With prior approval, banks could sell insurance products underwritten by others.

**Reserves and Capital**

Generally, lending would be subject to high provisioning requirements, and a conservative minimum capital rule would be applied. Bank supervisors would have the power to mandate capital in excess of the minimum when considered necessary to support the operation of the bank.

• A general reserve of 2 percent of total loans would be required.
• Specific reserves against nonperforming loans (interest or principal past due for 90 days or more) would be created progressively such that the reserve equals 100 percent of the exposure (face amount less 75 percent of the estimated realizable value of tangible collateral) no later than two years after the loan becomes nonperforming. Reserves would be required earlier should the likelihood of loss become apparent.
• Prudential rules would define situations presumed to constitute nonperformance. Rollovers of interest would be limited to six months' interest in any two-year period. Banks would be required to maintain documentation relating growth in working capital lines to nondistressed increase in borrower's requirements (for example, increased sales).
• The minimum capital standard would utilize the features of the Basle accord (risk-weighted assets and off-balance-sheet exposures, and conservative definition of capital). The minimum ratio would
be set initially at 12 percent, and would be phased down to 8 percent after five years. Alternatively, an 8 percent capital requirement could be employed, and weights of 150 percent applied to corporate lending.

- In principle, the capital standard must be met on a continuous basis.
- Dividend payments would be subject to restrictions to ensure maintenance of adequate capital. For new banks, no dividends could be paid in the first three years of operation unless approved in exceptional circumstances by the supervisors. No dividends could be paid if the supervisors have notified the bank that its loan loss provision is inadequate, or if the general reserve has not been established, or if the minimum capital standard is not met.

**Interest Rate Risk**

- Fixed-rate loans of over two years' maturity would be limited to 100 percent of capital (net of fixed assets) and 80 percent of long-term funding, which would include savings accounts without fixed maturity. Longer-dated asset maturities could be limited in decreasing proportions to long-term funding.

**Foreign Exchange Rate Risk**

- Open foreign currency positions would be limited to 5 percent of capital per currency. The sum of the absolute value of all open positions would be limited to 15 percent of capital. Interest rate mismatches in foreign currencies would have to be confined to less than six months forward. Beyond six months forward, all positions must be matched.
- Foreign currency lending would be restricted to sound borrowers generating sufficient foreign exchange to cover debt service and would be limited in aggregate to 50 percent of capital.

**Liquidity**

- Banks would be subject to an asset-based liquidity requirement. Twenty percent of banks' assets would be held as cash, sight deposits in banks, or in government paper (or equivalent liquid paper).

---

29 The basic minimum is 8 percent. Many Group of Ten countries require higher levels for most banks.
Interest Rates on Protected Deposits

- Interest rates on bank deposits would be restricted. At their highest, they would be equivalent to the rate on government paper of comparable maturity and rate structure.
Comment

George G. Kaufman

David Scott considers the very important issue of what should be the optimal banking structure, particularly initially, in the transitional socialist economies. In private market economies, the banking structures reflect the joint long-run economic, social, and political heritage of the respective country. As heritage differs substantially among countries, the banking structures also differ substantially. With respect to the United States, it is nearly impossible to understand the existing banking structure without first understanding the long-standing and deep-rooted public fear of big banks and the excessive economic concentration and power that they can wield. This fear is only now dying out as the banks are visibly losing market share. As a result, the United States has "narrow" banking and is on one end of the banking structure spectrum. German "broad" universal banks are on the other end. Recent changes in technology are narrowing the spread between the two extremes.

Although subject to considerable study in recent years, economists have not reached agreement on what is the optimal banking structure for any individual country; least of all for countries in transition. However, those who advocate narrower banks for reasons of safety and soundness need to be concerned about the poor performance of U.S. banks in recent years. Indeed, the narrowest banks, for example, the savings and loan associations, did worst. However, outside the United States, broader banks have also been in difficulties, particularly in Japan and the Scandinavian countries.

Scott enumerates four fundamental and a larger number of transitional objectives for a financial or banking system. The fundamental objectives are safeguarding depositors' funds; precluding systemic threat to the payment system; ensuring orderly implementation of monetary policy; and promoting efficient intermediation. These are reasonable goals for any economy. Scott notes, however, that they may or may not be consistent with some of the transitional objectives, such as continuing credit flows to less than creditworthy large borrowers to avoid shocks, disruptions, and even temporary increases in unemployment. To achieve the fundamental objectives, Scott places great emphasis on government regulation and supervision, but recognizes that bank supervision is not born fully grown overnight. Indeed, in transitional economies, bank supervision is likely to come with considerable "baggage" that weakens its effectiveness. Thus, Scott argues that regulation and supervision alone must not be relied
upon as the means by which financial soundness will be maintained. This suggests at least a partial market solution to achieving the first two fundamental objectives, but unfortunately the nature of the appropriate market structure to achieve financial soundness consistent with a proposed system of deposit guarantees is not discussed.

Scott recognizes that in practice the major shortage in banking in economies in transition is human resources—trained and knowledgeable market-oriented bank managers, regulators, and supervisors. As a result, he recommends a cautious, measured, step-by-step approach to achieving the fundamental objectives. This approach starts with narrow banks. He believes that universal banks are beyond the current capabilities of managers and supervisors in transition economies. In addition, potential conflicts of interest lie in wait as the necessary detection and monitoring systems are not in place and there is great pressure to satisfy the subsidiary and transitional objectives. Scott also rejects equity ownership. His bottom line is—in transitional socialist economies, start simple; walk before you can run. He correctly notes the frequent tendency to do just the opposite and the adverse implications of such a strategy for minimum government regulation and intervention.

Scott's narrow banking structure includes a limited number of banks to restrict competition; funds raised through a bank monopoly on deposits; household deposits fully guaranteed by the government; only short-term and highly diversified loans; no insurance for securities activities; ceilings on deposit rates; high capital, liquidity, and reserves; and a clear-cut distinction between banks and nonbanks. Indeed, the proposed system looks very much like the U.S. banking system of the 1940s through 1970s. But, as noted earlier, despite good intentions with respect to safety and soundness, the U.S. system deteriorated badly. The reasons for the breakdown were largely independent of narrow versus broad considerations, although the geographic narrowness of U.S. banks was a contributing factor as it hampered diversification. The major problem was the poor structure of government deposit insurance—that is, a regulatory breakdown. Thus, it is important to examine and understand the incentive system that government deposit insurance provides for both bankers and regulators.

In the United States and most other countries, the structure of government deposit insurance inadvertently gave (1) bankers the incentive to take greater risks by reducing their capital and assuming more credit and interest rate exposure as discipline by depositors was
reduced and (2) regulators and the government the incentive to forbear and delay intervening in troubled institutions to avoid unfavorable political backlash. The latter was possible as there were no deposit outflows or runs to force closure automatically of known insolvent institutions as had happened in the pre-insurance era. Therefore, public policy needs to deal with the deposit insurance problem at the same time if not before it deals with the banking structure problem.

Indeed, errors in establishing a deposit insurance structure are likely to be more costly to the economy than errors in establishing a banking structure. The two are in part interrelated, as poorly structured deposit insurance with broad universal banking could lead to the worst of all worlds—a bailout of all industries, not only of banking. That is, it could lead to an economy-wide federal safety net and a return to the bad old days of centrally planned socialist economies. Deposit insurance structure does not appear to have been thoroughly considered in planning the banking structure in economies in transition.

If the United States is to play a role model, it is important to understand what happened. The high cost of the regulatory failure ultimately led to potentially important deposit insurance reform through the structured early intervention and resolution provisions of the Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991. This is the most important banking act since the Glass-Steagall Act of 1933, and one of the most misunderstood. The underlying theory of the prudential provisions of the Act is to keep at least some government deposit insurance, but to offset the undesirable side effects from reduced market and regulatory discipline by mimicking the appropriate actions. It is designed to modify the incentive structure of both the bankers and the regulators.

Structured early intervention and resolution is divided into two parts. The first part—structured early intervention—is implemented through a series of bank capital zones with progressively harsher and more mandatory sanctions imposed on institutions by their regulators as their performance deteriorates and they sink down the capital ladder. The purpose is to turn the institution around before it is too late by applying a carrot-stick approach. Carrots include greater powers and reduced supervision. As long as it appears that a bank will be playing with its own money (capital), almost any activity that can be adequately monitored by the insurer could be permitted. But if the structured early intervention fails, early resolution is required through recapitalization by current shareholders, sale, merger, or
liquidation before the institution's capital turns negative. In theory, losses are restricted to shareholders and do not accrue to depositors and the Federal Deposit Insurance Corporation (FDIC). This structure effectively makes deposit insurance redundant and thus represents deposit insurance reform.

Although the Federal Deposit Insurance Corporation Improvement Act incorporated structured early intervention and resolution provisions, it did so in weakened form so that losses to uninsured depositors and the FDIC from failures are likely to be greater than zero. Its passage was vigorously fought by the regulators, who perceived these provisions as diminishing their power, visibility, and the "fun" of the job by reducing their discretion. Because the Act gives the agencies the power to interpret many of the provisions and to draft and implement the supporting regulations, the regulators can either reinforce or weaken, indeed even sabotage, the intent of Congress. To date, the regulators are, at best, weakening the effectiveness of the prudential provisions. This is possible as the banks are healthier now than they have been in a number of years, and the crisis is out of the daily headlines. But the regulators are playing with fire. It will not take much of a reversal in the economy or in interest rates for the brave new world to return suddenly to the broken old world. That is why this Act is only potential deposit insurance reform and not reform per se.

Structured early intervention and resolution is good deposit insurance policy in all countries. It keeps the best of both deposit insurance and market systems. It can work with narrow or universal banking, particularly if current or market value accounting is adopted. Indeed, if market value accounting is used and an effective "closure" rule is applied, the different prudential implications of narrow and universal banking diminish in importance. It would be possible to permit the banks to hold any asset that can be continuously valued at market. But market value accounting is just as difficult even in the United States as it is in economies in transition. The optimal banking structure in any country depends on the regulatory rules adopted. It is thus difficult to answer the question in the subtitle of Scott's paper—"Will universal banks prove viable?"—without this important piece of information.

If transitional socialist economies can deal satisfactorily with the structure of deposit insurance, I could support Scott's cautious, step-by-step approach, although there would be less need for the restrictive regulations that he proposes. In addition, Scott needs to pay more attention to an aspect of universal banking that has recently
been receiving more attention—namely, its impact on corporate governance. Bank equity investment in firms may improve managerial monitoring and discipline and lengthen managers' time horizons. Both results are generally viewed as beneficial. Moreover, in countries plagued by a shortage of financial managerial skills, universal banking may permit the few qualified managers to do "double duty."
Lessons from Bank Privatization in Mexico

Guillermo Barnes

This paper reviews briefly the Mexican experience with bank privatization. The success of bank privatization in Mexico has been facilitated by the macroeconomic stabilization policies pursued over the past few years, the relatively strong financial position of Mexican banks, and the good prospects for economic growth and expansion heralded by the closer ties with the United States and Canada under the proposed North American Free Trade Agreement (NAFTA). But the effectiveness of the privatization program has also been based on the promulgation of clear principles and objectives and the adoption of transparent and credible procedures. The Mexican experience is summarized in nine lessons that may be relevant for other developing countries contemplating similar exercises.

The first and perhaps most important lesson is that privatization conditions and the strength of the financial system are directly related to the general performance of the economy. The Mexican economy grew at an annual average rate of 3.8 percent in 1989-91, and the rate of inflation fell from almost 200 percent in 1987 to 18 percent in 1991. The sustained nature of economic growth marked the end of a long period of economic crisis in Mexico and allowed for a better privatization framework and strong financial deepening.

In 1983 the country was facing a stagnant economy, severe macroeconomic instability, high inflation rates, and an increase in public sector debt. These were partly the consequence of imbalances caused by public sector policies, increasing real international interest rates,

1 This paper is based on two presentations made to seminars organized by the World Bank's Financial Policy and Systems Division and the Economic Development Institute.
and the collapse of oil prices in the early 1980s. The second type of imbalances were structural inefficiencies generated, first, by an oversized public sector that owned too many state enterprises and overregulated the economy and, second, by protectionist trade policies that reduced foreign competition and weakened industrial competitiveness.

To solve these problems, Mexico adopted a severe adjustment program to stabilize the economy. During 1983–87 fiscal and monetary policies were tightened, with a particular emphasis on fiscal adjustment. The program's early achievements were considerable: the primary fiscal balance, which excludes interest payments, moved from a deficit of 7.3 percent of GDP in 1982 to a surplus of 6 percent in 1991; and public expenditure was reduced sharply during the same period.

The administration of President Salinas, which took office in December 1988, continued and tuned the prior administration's economic strategy to emphasize macroeconomic stabilization, structural reforms, and the reduction of poverty. The stabilization strategy was based on macroeconomic programs that included tight fiscal and monetary policies, a revised wage and price control agreement between the Government, business, and labor, and the strengthening of the balance of payments. Stabilization policies were designed to increase the public sector primary balance, which averaged a surplus of 7 percent of GDP in 1988–91; renegotiate Mexico's foreign debt to reduce the problem of excessive Mexican savings transferred abroad; reduce domestic credit to the public sector and maintain a crawling exchange rate to lower inflation further; maintain relative prices according to demand and supply conditions, avoiding indexing and reducing inflationary expectations; and obtain economic agreements among different sectors to distribute evenly the social costs of adjustment.

In November 1991, the Government sent to Congress the budget for 1992. This was the first budget in recent history that showed a public sector surplus after including interest payments on domestic and foreign debt. For 1992, the public sector surplus, excluding future privatization proceeds, was estimated at 0.8 percent of GDP. Fiscal balance has helped achieve a decline in the rate of inflation to less than 1 percent a month. During 1992, inflation was expected to be close to 10 percent. Real GDP was expected to grow at a rate of 3.5 percent. Investment, the main source of economic growth, showed an increase of 10 percent in 1991. Private investment was expected to grow at an annual rate of 12 percent in 1992. Real expansion of savings has permitted a large accumulation of international reserves and a further increase of credit to the private sector. The financial sector
reacted according to the general performance of the economy. In 1991 the percentage of financial intermediation to GDP reached 44 percent. This figure was 33 percent in 1985. Lower inflation, economic growth, and a higher degree of stability increased the demand for financial assets. See Charts 1, 2, and 3 below on inflation, GDP growth, and the ratio of M4 to GDP.

Chart 1. Inflation
(Monthly rate)

<table>
<thead>
<tr>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
</tr>
<tr>
<td>14</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

Source: Banco de México.

The second lesson is that privatization has to be complemented by a general structural transformation oriented to improve efficiency and productivity. The financial sector reforms have to be consistent with the general structural trend of the economy.

The Mexican macroeconomic stabilization program was complemented by a profound structural reform to increase productivity and improve overall market performance. It was based on several strategies: trade liberalization, foreign investment promotion, privatization of state enterprises, deregulation, fiscal reform, and financial sector reform.

Today Mexico is an open and competitive economy. Trade liberalization policies evolved from a system based on import permits and quantitative restrictions to a general system based on tariffs. As a result, resources have been reallocated to highly competitive sectors and protection rents have been eliminated. Companies based in Mexico have access to raw materials from abroad at competitive prices,
Chart 2. Growth of Real GDP

Source: Instituto Nacional de Estadística, Geografía e Informática.

Chart 3. Ratio of M4 to GDP

Source: Banco de México.
which has allowed them to become internationally competitive and has fostered non-oil exports.

Foreign investment plays an important role in Mexico as it complements domestic capital. To promote foreign investment, regulations were revised, and administrative procedures for approving foreign investment projects were simplified. Foreign investment is encouraged, since it complements domestic investment with new technology, efficient market strategies, and modern management. Foreign investment also enhances Mexico’s export capacity and provides domestic employment.

Privatization plays an important role in the overall economic strategy. Mexico wants a strong and efficient public sector based on law and justice, not on the ownership of public enterprises. The public sector will maintain ownership and control only of those strategic sectors as defined by the Mexican Constitution. The privatization policy has several objectives: to increase aggregate economic efficiency and productivity; to promote private investment and technological change; to reduce pressure on the public budget; and to make available public resources to increase infrastructure and social investments. From 1,155 firms owned by the Government in 1982, including 18 commercial banks, Mexico still maintained ownership of 227 public enterprises in 1992 (Chart 4). In terms of value the cumulative sales had reached approximately $13 billion (6 percent of GDP) up to 1991. These resources have allowed for better economic conditions in the country.

Deregulation is another important element of the economic strategy. The basic objective is to create rules that promote business and entrepreneurial activity. As long as an economy remains overregulated, the cost of doing business is increased. The Mexican goal is to liberalize the economy and improve resource allocation and efficiency. This policy has helped curb domestic price increases through greater competition. More generally, it has contributed to the establishment of a competitive market incentive structure for the private sector.

The objective of fiscal reform is to increase the efficiency and equity of the tax structure. On the one hand, tax rates have been reduced to a maximum level of 35 percent, which is considered an internationally competitive standard. On the other, the tax base has been expanded by including sectors that were traditionally excluded. Tax evasion has also been reduced. Lower rates and a broader base tend to increase the equity of the system. Tax revenues have increased as a percentage of GDP. These policies have fostered the fiscal performance and the primary public sector surpluses observed in the past years.
The third lesson concerns the financial sector directly. The reforms must improve the competitive economic conditions and enhance the overall efficiency of the financial system. The liberalization has to include operational and legal reforms.

In 1988, Mexico deregulated interest rates by eliminating controls of rates and maturities on all traditional bank instruments. Restrictions on loans to the private sector were also eliminated, and lending at below market interest rates to the public sector was discontinued. Financial reforms included changes in the reserve requirement system. Reserve requirements on deposits in pesos were initially replaced by a 30 percent liquidity ratio, which has since been reduced to zero. Foreign exchange deposits maintain a 15 percent reserve requirement. Today, government instruments held to satisfy a voluntary liquidity ratio earn market interest rates and are fully tradable.

To enhance the operating efficiency of banks and their ability to respond to changing market conditions, bank management was given more flexibility through the creation of boards of directors with the power to oversee all operating and investment decisions faced by management.

In December 1989, to foster financial liberalization and strengthen banks and other institutions involved in credit and stock market operations, Congress approved wide-ranging institutional reforms. The measures were intended to increase competition and reduce forced
market segmentation by expanding the scope of activities permitted to different types of institutions. They also allowed a greater degree of integration in the delivery of financial services.

The reforms also eliminated government regulation of insurance premiums and policies and deregulated and simplified the operation of mutual funds. In addition, restrictions governing foreign investment in financial institutions were relaxed. In summary, modernization of the Mexican financial system was based on the liberalization of instruments and institutions and was complemented by better government supervision of financial institutions.

Privatization of commercial banks in Mexico required a new legal framework, specially designed for private institutions. This principle provides the fourth lesson: privatization of banks can be carried out only with a solid and well-defined legal structure.

In 1990, the Government launched two major initiatives to allow the privatization of commercial banks and to establish the framework for the formation of integrated financial groups, envisaged as the main organizational structure of financial markets. On May 2, 1990, President Salinas submitted a bill to Congress to amend Articles 28 and 123 of the Constitution, permitting full private ownership of commercial banks.

The new Credit Institutions Law, enacted in July 1990, allows commercial banks to be majority owned and controlled by the private sector. To ensure Mexican control of banks, four classes of bank shares are provided for: "A" shares, which have to be at least 51 percent of the ordinary capital, can be held only by Mexican individuals and are related to the strategic control of the bank; "B" shares, which can be up to 49 percent of the ordinary capital depending on the number of "C" shares issued and can be held by Mexican individuals, Mexican corporations, and mutual funds; "C" shares, which can be up to 30 percent of the ordinary capital and can be held by Mexican individuals, Mexican corporations, and foreign investors; and "L" shares, which represent the additional capital and can be issued in an amount up to 30 percent of the ordinary capital. These shares can be held by the same investors as "C" shares, but have limited voting rights.

The law regulates banking and establishes the terms under which the state exercises supervision and control over the banking system. Before nationalization in 1982, the financial system was dominated by a few large banks with strong links to major industrial groups. The new regulatory provisions are intended to limit the concentration of credit risk, ensure the separation of interests between banking, industry, and commerce, and avoid conflicts of interest in the man-
agement of banks. Prudential regulation and supervision of banks are strongly emphasized. A comprehensive system for classifying loans according to their inherent risk was implemented by a requirement to create specific reserves for loan losses on nonperforming loans. In 1991 Mexican banks were obliged to constitute over a two-year period general reserves for up to 1 percent of the average balance of their loan portfolio.

The fifth lesson is that legal reforms should lead to structures that encourage solid and efficient financial intermediation. Mexico adopted financial legislation that opens the possibility of establishing a system of "universal banking." The law pertaining to financial groups regulates and permits the formation, under a common structure, of groups of companies performing different financial functions such as banking, insurance, brokerage, and other services. It brings to an end the traditional separation of banking from other types of financial activities and, in particular, allows banks and brokerage houses to come under the control of a single holding company.

But to limit the concentration of risk, ensure the adequacy of capital, prevent the pyramiding of capital, and avoid conflicts of interest within the groups, the legislation restricts the presence to one type of intermediary within a single financial group and prohibits members from investing in each other's or the holding company's stock.

The sixth lesson is related to the special characteristics of privatization. To encourage ample participation and ensure fairness, the process must be trustworthy. Clear objectives and precise rules for the entire privatization are essential.

The privatization of the banking system was initiated by a presidential decree and its objectives were to create a more efficient and competitive financial system; guarantee diversified participation and ownership of banks to promote investment in the financial sector and guard against ownership concentration; ensure high ethical standards and competence of bank management and obtain adequate capitalization levels; ensure Mexican control of banks without excluding foreign involvement; promote decentralization and regional participation in the banking institutions; obtain a fair price for the institutions in accordance with valuations based on homogeneous and objective criteria; achieve a balanced financial system; and promote fair and healthy financial and banking practices.

To oversee the whole process and bring it to fruition, a Bank Privatization Committee was formed by presidential decree. The Committee included government officials from all areas related to financial activity. The main responsibilities assigned to this group were to
establish criteria and general policies for the process; formulate a specific strategy for the sale of each bank; ensure transparency of the process with periodic communications to the public at large; hire external advisors as needed; and benefit from international experience in banking privatization.

The mechanics of privatization should be consistent with the legal framework and specific guidelines of the banking system. The seventh lesson is that the mechanics of privatization should be adequately prepared before the process begins.

The Mexican bank privatization consisted of four main stages. The first—preparatory actions—included qualifying and selecting the bidders by the Committee; writing each bank’s sale prospectus; and announcing the auction and its rules. The selection of bidding groups aimed to ensure that potential investors were experienced and of high moral standing and able to make a positive contribution to the future growth of the banks. Only approved groups were allowed to participate in the auctions for each bank. More than 44 groups were approved, and they presented in total 133 solicitations to acquire a bank. Each bidding group consisted of a core group that was allowed to invest in “A” shares. No foreign investors were included in the bidding groups, although after the completion of the privatization, foreign investors were invited to participate in the ownership of different banks.

During the first stage, several valuations were prepared for all banks. Each bank had an accounting valuation prepared following standard criteria. In addition, two independent financial valuations were made for each bank with the assistance of external advisors of international prestige. Obtaining objective valuations of banks is always a difficult exercise because of the information problems associated with assessing the performance of commercial and industrial loans. However, unlike the current situation in most developing countries, Mexican banks were fortunate that at the time of the privatization they had relatively low volumes of nonperforming loans. To some extent, this resulted from the past imposition of heavy reserve and investment requirements on banks that forced them to allocate a disproportionate amount of their resources to government bonds. In addition, during the nationalization period, banks were encouraged to consolidate their operations and to build adequate reserves against loan losses. The number of banks was reduced from 60 at the time of nationalization to 18, of which 6 were nationwide institutions, 7 were multiregional banks, and 5 were regional banks.

Once the auction was announced, the second stage began. It consisted of the due diligence process carried out by each bidder. Quali-
fied bidders gained access to the process if they made a deposit and signed a letter of confidentiality relating to all information obtained. Equal access to information, bank visits, and management interviews was given to all bidders. The Committee supervised the due diligence activities throughout.

The auction itself was the third step. After the due diligence process was completed, qualified bidders presented their bids. Fairness was guaranteed by the presentation of all bids at the same time in the presence of public notaries. The Committee reviewed the bids and selected a winner based on the highest price offered, provided that this price was higher than the valuations determined previously by the Committee. In case of a tie, the following items were considered in awarding the bank: business plan, capitalization plan, and the regional presence of the bidders. All winning bids were those with the highest price offered.

The final stage in the process was the sale itself. The sale was decided by the spending-financing commission of the Federal Government, following the Privatization Committee's recommendation. The Government transferred its shares to the winning group once the group had paid the total value offered.

Thirteen months after the selling process was initiated, control of all 18 banks had been sold for $13.5 billion. The prices achieved were a result of the state of the banking system and of each individual bank. In all cases, the prices were higher than the valuations obtained by the external advisors. The weighted average price/earnings ratio amounted to 14.5. In the United States and Europe an average of comparative bank acquisitions in the last five years reached a price/earnings ratio of 14. The weighted price/book value ratio was 3.08 compared with an international average of 2.2. The price range obtained reflects the health of the banking system, the modern legal framework, and positive expectations on the future performance of the Mexican economy.

In addition to the quantitative results mentioned above, other important objectives have been obtained. In particular, a diversified ownership of the capital stock of the banks has been achieved. More than 130,000 private investors, including employees through special trusts, have participated, while no individual investor has more than 10 percent of the stock of any bank. Also, the regional presence of the banks has been strengthened. The new bank owners come from all states in the country. They will link the banks with their local economies and customers.

The eighth principle is that sales have to be in cash, and privatization revenues have to be used for permanent welfare improvements.
Privatization should be an irreversible process that intends to transfer the ownership of assets from the government to the private sector on a once-and-for-all basis. Selling for cash is a transparent way of cutting the relation between the firms and the government, preventing future unpaid balances, or granting some type of government credit to finance the purchase of the firms.

Once the sale is completed, the destiny of the transitory revenues of the sale has to be decided so that they have a permanent impact on public finances. Prudence suggests that once-and-for-all revenues should not be used to finance current spending but should be used to reduce government outlays on a permanent basis. In the Mexican case the stock of internal debt as a percentage of GDP was reduced from 24.4 percent in December 1990 to 17 percent in December 1991, using proceeds from privatization. This figure was expected to decline further, to 13 percent in 1992. A smaller public debt reduces government outlays on interest payments and allows a transfer of government outlays to social programs.

The last lesson is that commonsense rules have to be followed for the privatization experience to be successful. Such rules include:

- Start by privatizing small firms. There are several reasons to be prudent about the timing and the sequence of any privatization. Learning the technical facts takes time and it is important to minimize risks. Mistakes made in selling a small firm are less important than those made in privatizing a large bank, the telephone company, or a major airline.

- Ensure economic certainty and build confidence through macroeconomic stabilization and market-friendly regulatory and structural reform. These conditions allow public sector firms to be sold at higher prices. The timing and planning of the strategy requires both a stabilization program and a privatization scheme.

- Centralize the management of the privatization process. In practice this means having a single responsible office that would preside over the firm’s board and the general manager, establish the proper strategy, deal with all potential buyers, and supervise all legal requirements.

- Ensure honesty and transparency in the whole process. Credibility has to be gained and people have to know that everything is being done honestly and according to the law. Detailed information, which includes characteristics of the buyer and the forms of payment, has to be given to the mass media. Congress and the General Comptroller must be briefed continuously.

In conclusion, it can be claimed that the bank privatization process in Mexico has achieved all its short-term objectives and has also laid
<table>
<thead>
<tr>
<th>Bank</th>
<th>Date of Auction</th>
<th>Sale Price</th>
<th>Percent Sold</th>
<th>Book value</th>
<th>Book value (percent)</th>
<th>Profits</th>
<th>Profits (percent)</th>
<th>Expected profits</th>
<th>Expected profits (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercantil</td>
<td>6.7.91</td>
<td>611.20</td>
<td>77.19</td>
<td>207.6³</td>
<td>2.60</td>
<td>62.2³</td>
<td>12.73</td>
<td>69.3</td>
<td>11.43</td>
</tr>
<tr>
<td>Banpais</td>
<td>6.14.91</td>
<td>544.99</td>
<td>100.00</td>
<td>180.1³</td>
<td>3.03</td>
<td>30.7³</td>
<td>17.73</td>
<td>24.6</td>
<td>22.15</td>
</tr>
<tr>
<td>Cremi</td>
<td>6.21.91</td>
<td>748.29</td>
<td>66.70</td>
<td>329.2³</td>
<td>3.40</td>
<td>51.3³</td>
<td>21.87</td>
<td>41.7</td>
<td>26.90</td>
</tr>
<tr>
<td>Confo</td>
<td>8.2.91</td>
<td>892.26</td>
<td>78.68</td>
<td>304.0³</td>
<td>3.73</td>
<td>83.9³</td>
<td>13.52</td>
<td>108.6</td>
<td>10.44</td>
</tr>
<tr>
<td>Banorifice</td>
<td>8.9.91</td>
<td>223.22</td>
<td>66.00</td>
<td>83.7³</td>
<td>4.04</td>
<td>14.3³</td>
<td>23.65</td>
<td>18.4</td>
<td>18.38</td>
</tr>
<tr>
<td>Banreser</td>
<td>8.16.91</td>
<td>425.13</td>
<td>100.00</td>
<td>163.5³</td>
<td>2.60</td>
<td>8.4³</td>
<td>50.48</td>
<td>48.6</td>
<td>8.75</td>
</tr>
<tr>
<td>Banamex</td>
<td>8.23.91</td>
<td>9,744.96</td>
<td>70.72</td>
<td>5,242.4²</td>
<td>2.62</td>
<td>1,233.7²</td>
<td>11.18</td>
<td>1,264.1⁴</td>
<td>10.90</td>
</tr>
<tr>
<td>Bancomer</td>
<td>10.25.91</td>
<td>8,564.21</td>
<td>56.00</td>
<td>5,111.8³</td>
<td>2.99</td>
<td>975.9³</td>
<td>15.67</td>
<td>1,104.1</td>
<td>13.85</td>
</tr>
<tr>
<td>BCll</td>
<td>11.8.91</td>
<td>878.36</td>
<td>100.00</td>
<td>328.4⁹</td>
<td>2.67</td>
<td>39.3⁹</td>
<td>22.31</td>
<td>35.60</td>
<td>24.67</td>
</tr>
<tr>
<td>Serfin</td>
<td>1.24.92</td>
<td>2,827.74</td>
<td>51.00</td>
<td>2,051.001⁰</td>
<td>2.69</td>
<td>375.29¹⁰</td>
<td>14.77</td>
<td>491.00</td>
<td>11.29</td>
</tr>
<tr>
<td>Comermex</td>
<td>2.7.92</td>
<td>2,706.01</td>
<td>66.54</td>
<td>1,089.24¹⁰</td>
<td>3.73</td>
<td>197.29¹⁰</td>
<td>20.61</td>
<td>235.00</td>
<td>17.31</td>
</tr>
<tr>
<td>Somex</td>
<td>2.28.92</td>
<td>1,878.53</td>
<td>81.62</td>
<td>695.57¹¹</td>
<td>3.31</td>
<td>138.20¹¹</td>
<td>21.25</td>
<td>150.00</td>
<td>15.33</td>
</tr>
<tr>
<td>Atlanticco</td>
<td>3.27.92</td>
<td>1,897.16</td>
<td>68.48</td>
<td>402.70¹²</td>
<td>5.33</td>
<td>119.50¹²</td>
<td>17.95</td>
<td>228.00</td>
<td>9.41</td>
</tr>
<tr>
<td>Promex</td>
<td>4.3.92</td>
<td>1,074.47</td>
<td>66.00</td>
<td>383.09¹²</td>
<td>4.25</td>
<td>98.50¹²</td>
<td>16.53</td>
<td>115.80</td>
<td>13.16</td>
</tr>
<tr>
<td>Banoro</td>
<td>4.10.92</td>
<td>1,137.81</td>
<td>66.03</td>
<td>436.25¹³</td>
<td>3.95</td>
<td>152.96¹³</td>
<td>11.27</td>
<td>174.80</td>
<td>11.26</td>
</tr>
</tbody>
</table>
Table 1. (concluded).

<table>
<thead>
<tr>
<th>Bank</th>
<th>Date of Auction</th>
<th>Sales Price</th>
<th>Percent Sold</th>
<th>Book Value (percent)</th>
<th>Profits(^1) (percent)</th>
<th>Profits(^2) (percent)</th>
<th>Expected Profits (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banorte</td>
<td>6.12.92</td>
<td>1,775.78</td>
<td>66.00</td>
<td>633.08(^1)</td>
<td>4.25</td>
<td>213.21(^1)</td>
<td>12.62</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>230.40</td>
</tr>
<tr>
<td>Internacional</td>
<td>6.26.92</td>
<td>1,486.92</td>
<td>51.00</td>
<td>987.05(^1)</td>
<td>2.95</td>
<td>187.20(^1)</td>
<td>...</td>
</tr>
<tr>
<td>Bancen</td>
<td>7.3.92</td>
<td>869.38</td>
<td>66.31</td>
<td>281.70(^1)</td>
<td>4.65</td>
<td>120.81(^1)</td>
<td>10.85</td>
</tr>
<tr>
<td>Sistema</td>
<td>37,856.45</td>
<td>19,010.76</td>
<td></td>
<td>3,697.71</td>
<td></td>
<td></td>
<td>4,696.75</td>
</tr>
<tr>
<td>Maximum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.33</td>
<td>50.48</td>
<td>26.90</td>
</tr>
<tr>
<td>Minimum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.60</td>
<td>11.20</td>
<td>8.75</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.49</td>
<td>17.50</td>
<td>14.45</td>
</tr>
<tr>
<td>Standard deviation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.78</td>
<td>9.71</td>
<td>5.20</td>
</tr>
<tr>
<td>Weighted average</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.08</td>
<td>14.34</td>
<td>12.48</td>
</tr>
</tbody>
</table>

Source: CB First Boston.
\(^1\)Profits over the last 12 months.
\(^2\)Estimates based on annualizing profits accumulated up to the date of sale. For Serfin, Comermex, Somex, Internacional, and Bancen, expected profits were obtained from the Annual Operating Plans.
\(^3\)In April 1991. The profits for 1990 were much higher, at Mex$41 billion, yielding a price/earnings ratio of 13.3.
\(^4\)In June 1991. Profits include revaluation gains on fixed assets.
\(^5\)In July 1991.
\(^6\)Unconsolidated.
\(^7\)In September 1991.
\(^8\)In December 1991.
\(^9\)In January 1992.
\(^10\)In February 1992.
\(^12\)In May 1992.
the foundations for the pursuit of the longer-term objectives. Among the former, the privatization process has succeeded in ensuring Mexican control of banks with diversified ownership and regional participation. It has also obtained high but fair prices for all the banks. As regards longer-term objectives, bank privatization has laid the foundations, in conjunction with the reform of bank and financial regulations, for creating an efficient and competitive, but balanced, financial system, enhancing operating efficiency and ethical standards, and developing fair and healthy banking and financial practices.

Bibliography

Aspe, Pedro, "Thoughts on the Structural Transformation in Mexico: The Case of Privatization of Public Sector Enterprises" (unpublished; Secretaria de Hacienda y Crédito Público, June 1991).


Comment
Diana McNaughton

Mexico’s bank privatization, one of the fastest and most far-reaching to date, was arguably one of the most successful financial operations in recent years. Eighteen banks were privatized within a period of 13 months at prices that reached up to four times book value. As a component of a comprehensive reform package, the Mexican bank privatization case serves to illustrate the important connections between macroeconomic policies and microinstitutional issues.

Since the theme of this conference is building sound finance in emerging market economies, it is fitting to assess Mexico’s bank privatization in the light of three questions:

(1) What conditions contributed to this rapid and financially successful privatization?

(2) How applicable is the Mexican experience to other countries?

(3) What have been the effects of Mexico’s privatization: on the cost of financial intermediation, on competition, on innovation in financial services, and finally, on the financial health and risk profile of the banking system itself?

Context

The Mexican bank privatization took place within the context of favorable macroeconomic and real sector conditions. Highly credible macroeconomic adjustment policies, improving economic performance indicators, enterprise restructuring and privatization, substantial regularization of enterprise debts, and prospects for increasing North American economic integration all increased the marketability of Mexican banks.

The timing of the Mexican privatization appears to have been good from several perspectives, as outlined above. It is not entirely clear, however, that the amount of financial restructuring of the banks prior to privatization was sufficient. Therefore, there is some risk that the new owners may turn back to the Government for compensation on nonperforming loans at their book value at the time of privatization as has been done in several other cases. This is a fair practice when the purchasers are not able to undertake in-depth on-site loan portfolio reviews before purchase.

Another important aspect of timing is the sequencing of the strengthening of banking supervision. In Mexico, supervision must be capable of overseeing the newly privatized banks and the financial
conglomerates to which they belong. Strengthening supervision is being undertaken after privatization, though awareness of its importance is high in Mexico and any deficiencies are being remedied. Timing is an issue that plagues bank privatization in many countries. Premature privatization is becoming as serious a problem as premature bank restructuring that is improperly phased with reforms in the real sector and enterprise restructuring.

**Applicability**

Economic conditions prevailing in Mexico at the time of the privatization were highly favorable to a rapid and a remunerative sale of the banks. A number of other conditions also favored this privatization. Among them were the improved financial condition of the banks as a result of the conditions outlined above and their relative efficiency and good management. The Mexican banks were largely immune from the serious "heritage" problems of East European banks, for example.\(^1\)

Moreover, there was a substantial accumulation of Mexican capital available for strategic investment. Consequently, it was possible to attract strategic domestic investors to become the active owners, taking a leadership role in transforming the banks, as opposed to a totally fragmented ownership of small shareholders, none of which takes a leadership role in bank management and transformation.\(^2\) These conditions made it possible to proceed with a domestic privatization and thus dodge the political obstacles involved in selling national banks to foreign banks.

Finally, competitive conditions within the country substantially increased the franchise value of Mexican banks. For years before privatization, entry had been severely constrained, and there were no private domestic banks, no joint ventures, and only one foreign bank operating in the Mexican market.

It appears that Mexico largely avoided the rush to premature bank privatization so prevalent in other countries. The timing was favorable in terms of economic conditions as well as in terms of the real sector's condition. It is not clear, however, how deeply enterprise restructuring served to improve the quality of the banks' loan portfolios or how much information the purchasers had about the specific

---

\(^1\) The "heritage" problem encompasses old staff, old portfolio, and old systems.

\(^2\) Time will be needed to assess the "quality" of the banks' new ownership. Results will be demonstrated in the financial condition and performance of the banks and in the quality and price of the financial services they provide.
loans within those portfolios. Thus, as indicated above, the revenue from the sale may need to be adjusted as the Mexican authorities compensate the new bank owners for losses enmeshed in bank portfolios at the time of sale.

In addition, it is not clear that the Mexican supervisory authorities were fully prepared to regulate and supervise the newly formed financial conglomerates. New risks have been built into the Mexican banking system in the form of group ownership of banks, the creation of financial conglomerates with their potential for interlocking risks, and a perceived reduction in the government liability for deposit coverage resulting from the privatization of the banks.

Effects

Was the Mexican bank privatization successful? It was fast. It was remunerative. Proceeds of approximately $11 billion contributed substantially to Mexico’s debt reduction. But how does one measure the success of such an undertaking? I think success is to be measured by its relationship to objectives. Clearly, the objectives must include improvement in the quality of banking services, in the pricing of financial intermediation, and in the safety and soundness of the banking system itself. In this case it may be premature to offer an opinion.

It is clear that the macroeconomic context and country circumstances were highly favorable for bank privatization. It is not at all clear why the purchasers paid such a high price. Nor is it clear that the prevailing regulatory and supervisory framework is adequate to ensure the safety and soundness of the privatized banks, which, if uncorrected, poses risks for the banking system. Finally, it is not yet clear what effect the privatization has had on the functioning of the banking system and on the efficiency of financial intermediation.

The overarching objectives in any bank privatization should be enhanced competition, greater efficiency, innovation, better service, and in general improved financial intermediation. Anecdotal evidence suggests that service has not improved and spreads remain high as the new owners strive to recoup their investment. Thus, the big questions remain unanswered, including one of the most puzzling: Why did the buyers pay such a high price? Also, what effect will the transaction have on the future of the Mexican banking system?
PART IV

Credit Provision in Transitional Economies
Credit Market Imperfections and Output Response in Previously Centrally Planned Economies

Guillermo A. Calvo and Fabrizio Coricelli

Introduction

The reform programs launched in Central and Eastern Europe and in the former Soviet Union have been accompanied by a sharp, and partly unexpected, fall in output (Chart 1). Moreover, three years into the reform experience, output remains rather flat.

Abstracting from the possibility—not so remote (Berg and Sachs, 1992)—that the contraction of output was simply a statistical artifact, two main types of explanation for this phenomenon have been advanced. One set of explanations relies on standard static models of aggregate demand and aggregate supply and ascribes the fall in output to exogenous shocks. Prominent among them, the external trade shock (the demise of the Council for Mutual Economic Assistance (CMEA)) and the fall in household demand. Another—possibly complementary—set of explanations emphasizes the more systemic nature of the collapse of output. Specifically, the decline in output may have resulted from a change in regime consisting in a shift from a system of organization and coordination of production and exchanges based on central intervention or government tutelage, to a decentralized system. Within this broad view we focus on the effects of credit policy in a system in which the role of credit markets has changed radically. In fact, most previously centrally planned econ-

1 The authors would like to thank Willem Buiter, Rudiger Dornbusch, and Hugo Hopenhayn for very useful comments.
omes began their reforms lacking credit markets, namely, lacking the information, trust, institutions, and rules, which, either codified in laws or in common practice, define credit markets. In the pre-reform regime banks mainly played the role of accounting firms. The information capital necessary for the functioning of credit markets and the same banking skills were absent in the pre-reform regime. Moreover, private credit markets did not exist in highly centralized economies. Besides legal restrictions, the lack of credible bankruptcy procedures was a major obstacle for the development of such private markets. Countries—like Hungary and Poland—that had undertaken partial reforms and introduced some degree of decentralization in economic decisions developed a primitive system of private credit markets—interenterprise credit—and a skeleton of a commercial banking system. However, even in these countries the nature of credit markets was peculiar because of the presence of de facto full insurance from
the central bank and the lack of a system of enforceable private contracts.

The reforms of 1990–91 denoted a sudden break with the past. Credit policy was sharply tightened. The automatic extension of credit by the central bank was terminated. The full insurance guaranteed by the central bank as a lender of last resort was eliminated. The financial condition of enterprises suddenly became a determinant of their output and wage payments. The central channels of organization and coordination of exchanges disappeared. Firms had to carry out their transactions in the market, at prices that they freely set. Money became a fundamental instrument for transactions also within the enterprise sector, in contrast with the old regime where the only relevant monetary exchanges were associated with the household sector.

This paper explores whether such conditions in credit markets may help explain the output performance observed in the initial stages of reform in previously centrally planned economies. The paper extends our previous work, which was based on a simple dynamic framework of firms constrained by liquidity. It examines the response of credit markets and enterprise liquidity to the initial shock and presents a simple framework for analyzing both the impact effect of the credit contraction and the dynamic effects. The main innovation of the paper is the discussion of the circular process of exchanges within the firm sector and the role of money and interenterprise credit in such a process.

**Impact Effect of the Credit Contraction**

A central element of the reform programs in previously centrally planned economies has been the liberalization of prices and the increase of key administrative prices like energy. As a result, the price level jumped at the beginning of the reform programs (Table 1). With the declared objective of avoiding that the initial price jump would translate into persistent inflation, credit policy was sharply tightened at the beginning of the programs, as shown in the credit targets displayed in Table 1. Hungary stands out as the exception, as the initial “price shock” was much softer, consistent with a more gradual approach to price liberalization.

In countries like Bulgaria, Romania, and Russia that started the reforms with a perceived sizable “monetary overhang,” the combination of stable nominal credit/money and the price jump was supposed to eliminate the overhang. However, ex post, the association between
Table 1. Credit and Money in the Enterprise Sector
After Reforms
(Real stocks deflated by producer prices; in percent)

<table>
<thead>
<tr>
<th>Country</th>
<th>Credit to Enterprises</th>
<th>Enterprise Money</th>
<th>Inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual</td>
<td>Target</td>
<td>Actual</td>
</tr>
<tr>
<td>Bulgaria</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1991.I/1990.IV)</td>
<td>-75.1</td>
<td>-61.0</td>
<td>-71.7</td>
</tr>
<tr>
<td>(1991.IV/1990.IV)</td>
<td>-67.0</td>
<td>-61.0</td>
<td>...</td>
</tr>
<tr>
<td>Former Czechoslovakia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1991.I/1990.IV)</td>
<td>-28.3</td>
<td>-11.4</td>
<td>-34.4</td>
</tr>
<tr>
<td>(1991.IV/1990.IV)</td>
<td>-48.4</td>
<td>-8.1</td>
<td>0.7</td>
</tr>
<tr>
<td>Hungary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1990.I/1989.IV)</td>
<td>-12.0</td>
<td>...</td>
<td>-6.9</td>
</tr>
<tr>
<td>(1990.IV/1989.IV)</td>
<td>-7.0</td>
<td>-7.0</td>
<td>24.8</td>
</tr>
<tr>
<td>Poland</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1990.I/1989.IV)</td>
<td>-49.0</td>
<td>-10.0</td>
<td>-38.2</td>
</tr>
<tr>
<td>(1990.IV/1989.IV)</td>
<td>13.0</td>
<td>25.0</td>
<td>-15.0</td>
</tr>
<tr>
<td>Romania</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1991.I/1990.IV)</td>
<td>-16.0</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>(1991.IV/1990.IV)</td>
<td>-39.0</td>
<td>-46.0</td>
<td>...</td>
</tr>
</tbody>
</table>

Source: Authors' calculations on data provided by the authorities of the various countries.
Quarterly data on Hungary are affected by seasonality. Gérard Belanger has pointed out to us that seasonal factors account for a difference of 6–8 percent between enterprise deposits in the fourth and first quarters (with the latter being lower). The annual change reported may thus be more relevant.

the initial fall in real credit/money aggregates and ex ante estimates of monetary overhang was rather weak, as suggested by the sharp contraction in real credit even in countries like the former Czechoslovakia and Poland (Table 1).

Therefore, irrespective of their initial conditions, all countries—except Hungary—experienced a sharp fall in real credit to enterprises and in enterprise real monetary balances. Could such a contraction in real credit account, at least partially, for the decline in output that occurred in the initial stages of reform programs? In previous papers we have argued that the "credit view" may explain part of the initial contraction in output, and it may also help explain some apparent puzzles, such as the behavior of wages. In this section we summarize the main elements of a simple conceptual framework underpinning the role of credit markets in the output decline in previously centrally planned economies, focusing on the impact effects of a credit contraction. The model tries to capture some key institutional aspects of these economies, relating both to the underdevelopment of credit
markets and to the structure of control of state enterprises based on a powerful role for workers.

**Simple Model of Liquidity-Constrained Firms**

To focus on the role of credit, we assume the economy is populated by competitive, identical firms that produce a final good using intermediate inputs and labor. Both final and intermediate goods are tradable. Thus, with constant international prices, their domestic price is determined by the exchange rate. To simplify the analysis further, we assume a system of fixed exchange rates. Consequently, prices are exogenous. To produce final goods, firms must have a stock of inputs as production begins, and inputs must be paid in cash. The liquidity constraint is captured by assuming that firms face a liquidity-in-advance constraint:

\[ x \leq m, \]

where \( x \) stands for inputs of intermediate goods and \( m \) is real cash balances in terms of inputs. To account for the powerful role of the workers in state-owned enterprises, we assume that firms are managed by a workers' council. The council cares about the welfare of all the (identical) workers belonging to the coalition attached to the firm. Since our focus is on the initial impact of a liquidity squeeze, we assume that the size of the coalition, or membership, is fixed. Therefore, the council maximizes the expected utility of the representative member.²

To rule out dynamics of the labor market that would derail us from the main focus of the paper, we assume that there are no unemployment benefits. As a result, the firm employs all its members, and thus employment becomes a fixed factor (its size is normalized to be equal to one). The production function can thus be written as \( f(x) \), and \( f \) is assumed to satisfy the usual neoclassical conditions. Thus, if firms are liquidity constrained, condition (1) holds with equality, and the output of final goods can be written as \( f(m) \). Letting \( \omega \) denote total labor

²The outcome of the choice of the workers' council is optimal for the coalition of workers and resembles the outcome of efficient contracts in capitalist firms, with the difference being that in the case we discuss, the income-sharing rule is trivial, as all the rents of the firm are appropriated by the workers. This setup contrasts sharply with the classical version of the labor-managed firm, which assumes that firms maximize income per worker (Ward, 1958). That model implies the firm will fire workers even when there is no unemployment compensation.
income, and assuming an exogenous constant exchange rate, firms can accumulate liquidity over time according to:

\[ m_{t+1} = pf(m_t) - \omega_t, \]  

(2)

where \( p \) stands for the price of output in terms of inputs. As noted before, we assume that both goods are tradable and thus the relative price is exogenous.

Condition (2) highlights the fundamental role of wages in the liquidity accumulation of firms.

Let us consider the case in which households have perfect access to international capital markets. This justifies taking the (constant) world interest rate as the relevant discount factor for households. Thus, the workers' council chooses the path of labor income that maximizes the present discounted value of labor income, that is,

\[ \sum_t w_t \left( \frac{1}{1+r} \right)^t, \]  

(3)

subject to the liquidity accumulation equation (2) and the initial stock of liquidity \( m_0 \). The linear specification of the workers' council objective function implies that the above problem is a "bang-bang" type solution (Shell, 1967). Let \( m_{\infty} \) be such that it satisfies the following condition:

\[ pf'(m) - 1 = r. \]  

(4)

If \( m_0 = m_{\infty} \), it is optimal to set \( m_t = m_0 \) for all \( t \). However, if \( m_0 < m_{\infty} \), and thus the economy is in a liquidity crunch situation, then the optimal choice for the workers is to transfer to the firm an amount of money equivalent to \( m_{\infty} - m_0 \). Thus, the firm would borrow from its workers and circumvent the liquidity constraint. This situation can be defined as one in which credit markets work perfectly, as liquidity is transferred from the sector that has access to international credit markets—the workers-households—to the sector that is excluded from them—the firms. By contrast, credit market segmentation can be captured in a simple manner by assuming that wages cannot fall below a well-defined lower bound.

With credit market segmentation, if the firm operates initially in the liquidity-crunch region, the optimal choice would be to set wages at the minimum acceptable level until real monetary balances have attained their optimal steady-state level. The initial liquidity crunch may be determined either by a devaluation of the exchange rate—keeping the relative price \( p \) unchanged—or by a contraction of nominal balances. The liquidity crunch inevitably determines a contraction
of output on impact. This takes place even when the relative price of inputs does not increase and real wages decline, that is, there is no "supply shock" in the conventional meaning.

In sum, when facing a liquidity crunch firms "borrow from their workers" to achieve, at the maximum speed, the optimal level of real monetary balances. However, the segmentation of credit markets implies that output declines on impact.

This simple model explains the puzzling behavior of wages during the early stages of reform, namely, that wages were set well below the ceilings established by the programs. Indeed, such a phenomenon is particularly puzzling, given the powerful role of workers in the decision making of enterprises.

There is a simple economic intuition behind these results. When the level of liquidity is below full capacity, the following inequality holds:\[ pf'(m) - 1 > r. \] The inequality states that the marginal return to liquidity used to purchase inputs \( pf'(m) - 1 \) is greater than the marginal return to liquidity left in the hands of the workers \( r \). Thus, by lending to firms, workers get a rate of return larger than \( r \).

The version of the model discussed above adopts a series of simplifying assumptions that do not crucially affect the main results. Before pointing to some natural extensions of the model, it is worth noting that the above model focused on the case of fixed exchange rates and tradable inputs and output. With flexible exchange rates it is less obvious how the real stock of liquidity can fall below full capacity. Indeed, the contraction of nominal liquidity would lead to an appreci- ation of the exchange rate, which could in turn maintain the real stock of liquidity at its full capacity. To generate the same result discussed in the text, the model has to be modified in one of two ways: (1) assuming some form of price-setting rigidity and/or (2) assuming an asymmetric distribution of liquidity before the program started. In both cases a contraction in liquidity would lead to output effects. Rigidities in price setting may arise because of the presence of a significant share of input prices that is administered, or because of anachronistic cost-plus pricing in sectors not exposed to foreign competition. The asymmetric distribution of liquidity implies that the increase in the price level will determine liquidity constraints for liquidity-poor firms, whereas liquidity-rich firms would still be characterized by excess liquidity. To avoid the output decline, a reallocation of liquidity across firms would be necessary. Thus, the effects of a credit crunch are likely to be at work also with flexible exchange rates, as long as there is segmentation in credit markets.

\[ pf'(m) - 1 > r. \]

As a consequence of the assumption of strict concavity of the production function.
The main results of the model do not depend on the specific form of credit market segmentation, which was introduced by superimposing a lower bound on wages. In a richer—and perhaps more realistic—model the limits on enterprise borrowing from workers can arise from the fact that workers-households may face liquidity constraints as well. In addition, the main thrust of the above model carries over to a more realistic setting in which firms' liquidity can be altered by bank credit (see Calvo and Coricelli (1992) for such extensions).4

Finally, a more realistic model would incorporate inventories and interenterprise arrears. Indeed, the cash constraint may be loosened by the presence of these two elements. However, both the downloading of input-inventories and the accumulation of arrears in payments to suppliers, although effective at the level of the single firm, may have negative aggregate effects on output as they create difficulties for firms that produce inventories and for suppliers of inputs. Nevertheless, the introduction of inventories and arrears would not alter qualitatively the basic result relating to the impact effect on output of a liquidity contraction. Whether the use of inventories and the accumulation of arrears may eliminate the liquidity crunch is an empirical question. The definition of liquidity of the firm is modified, but not the nature of the constraint (1). Nevertheless, as discussed in the next section, the presence of interenterprise arrears may have important dynamic effects.

The model implies that output converges toward its full-capacity level as firms accumulate liquidity over time. The actual experience of previously centrally planned economies seems to indicate that the speed of recovery is rather low. Even in countries like Poland that began to grow during 1992, the level of output remains depressed (Chart 2). There are several possible channels of low-output persistence, some of which are explored in the next section. The simple model discussed above obviously neglects the presence of exogenous shocks, like the demise of the CMEA, which may depress output. Although empirically relevant, these shocks do not alter the validity of the theoretical model. In fact, the CMEA shock itself could be seen as a case of trade implosion deriving from the destruction of a system of centralized credit and payment. In our model this can be

4In the case of binding credit ceilings, the model is basically unchanged. When credit ceilings are not binding, the behavior of the stock of credit is demand-determined and depends on the path of interest rates on bank loans. However, in the relevant case in which interest rates are initially high and are expected to decline over time, the main results of the simple cash-in-advance model still hold.
characterized as a tightening of the liquidity constraint determined by a contraction of foreign credit. Moreover, there are other channels accounting for a slower recovery that can be easily incorporated in the simple model exposed above. They relate for instance to the horizon of the firms, endogenous inflation, and its effects on money demand. These modifications, while altering the quantitative implications of the model in terms of speed of adjustment, do not change the main thrust of the simple model.

In contrast with these "incremental" changes of the simple model, we discuss in the next section the possibility of a qualitative change in the properties of the dynamic adjustment implied by the simple model. In particular, we develop a model with multiple equilibria, with each equilibrium distinguished by different levels of output and liquidity. In this type of model the issue is not simply the speed of adjustment, as countries may get stuck in the initial state of depressed output.

**Low-Output Persistence**

This section presents three extensions of the basic model discussed above, which help to explain low-output persistence.
Short Enterprise Horizons

A salient characteristic of most transformation processes is the willingness to restructure and privatize a large portion of the originally socialized sector. In general, this type of expectation should have an effect on the firms' incentives. Thus, for example, if the firm were to be privatized at time $T$, the sum in expression (3) would have to run from 0 to $T$, which lowers incentives for liquidity accumulation and depresses output. More interestingly, if privatization time, $T$, is unknown, and the probability of its occurring in the "next instant," if it has not occurred before, is $\delta$ (a constant), then one could argue that the optimal strategy for the enterprise is to maximize a sum like (3), where now the discount factor is $(1 - \delta) / (1 + r)$ (which corresponds to Yaari (1965) in discrete time). Consequently, the steady-state first-order condition (4) now becomes

$$pf'(m) = \frac{1 + r}{1 - \delta}. \quad (4')$$

Therefore, under privatization, risk output will be permanently lower than the social optimum (where condition (4) holds), even if the system converges quickly to its steady state.

The insight from this model is straightforward. Either privatize quickly, or make a credible announcement that privatization is unlikely to happen.\(^5\)

Endogenous Inflation

Our simple model in the previous section assumes fixed exchange rates. However, it is easy to extend it to cases in which, for instance, the rate of devaluation is constant. Let the rate of devaluation be denoted by $\epsilon$. Then one can prove that steady-state condition (4) becomes

$$pf'(m) = (1 + r)(1 + \epsilon) = 1 + i = 1 + \text{nominal interest rate}. \quad (4'*)$$

Given exogeneity of relative prices, the domestic rate of inflation is also equal to $\epsilon$. Thus, condition (4\(^*\)) implies that the higher the rate of inflation, the smaller is the demand for cash by enterprises (a perfectly conventional result). Besides, since output is given by $f(m)$, it

---

\(^5\)A more complete analysis will, of course, have to take into account the inefficiencies associated with quick privatization as well as those associated with keeping enterprises in government hands.
follows that higher inflation is associated with smaller steady-state output.

Let us now consider an economy that depends on seigniorage to finance (part of) its budget deficit. In such a case the rate of expansion of cash is a function of the price level: the higher the latter, the higher will be the former. As is well known (see, for example, Calvo (1992)), such money supply endogeneity may give rise to equilibria with different inflation rates. In other words, the same set of "fundamentals" may be associated with low or with high inflation, depending on the state of expectations. Since, as noted above, the level of output is inversely related to inflation, this extension of the model illustrates the possibility that the economy locks into a "bad" equilibrium with low output and high inflation.

There is more than one way in which an economy could lock into a bad equilibrium. One possibility is that, before the start of the transformation program, inflation was high. Thus, it would be perfectly normal for people to expect that it will take a while for inflation to decrease—possibly forcing the monetary authority to validate expectations, undermining the program's credibility, and lengthening even more the period of high inflation/lower output.

Another possibility, which is of even greater relevance for previously centrally planned economies, is that the bad equilibrium is a consequence of the initial liquidity crunch. The latter increases nominal interest rates, which could, in turn, be interpreted by individuals as a signal of higher future inflation. Higher inflationary expectations lower the demand for money, which, as argued above, may induce the monetary authority to validate the high-inflation equilibrium.

The solution implied by the model is deceivingly simple: just push the economy to the high-liquidity equilibrium. However, effective implementation of such a solution is not easy. For example, a natural candidate would seem to be a one-step increase in money supply. However, for this policy to be effective, it is necessary for people to believe that it will result in lower inflation—an unlikely outcome given that the public observes money supply increasing. In fact, people may infer that the central bank is conducting "business as usual" by once again heavily relying on the inflation tax. Therefore, the demand for money may not increase—it may actually decrease—making high steady-state inflation even harder to overcome. In addition, in the period that the policy is implemented, the inflation rate may exhibit a very large spike (because money supply suffers a sizable jump, while money demand is constant or declines)—making a mockery of the stabilization plan.
Alternatively, the government could launch a propaganda campaign aimed at lowering inflation expectations. This campaign could announce, say, that the currency will be pegged to the U.S. dollar. However, this policy may backfire. First, it will unravel quickly if the public is not persuaded about the effectiveness of the stabilization program. The demand for money will remain low, which will force the government to resort to a large infusion of money to finance the budget deficit—thus eventually leading to a balance of payments crisis. Second, if to avoid a balance of payments crisis the exchange rate is allowed to float, the low-inflation/high-output equilibrium can be achieved only if prices and nominal wages fall by, possibly, a substantial amount. Otherwise, without the above-mentioned dangerous one-step increase in nominal money, real monetary balances will not be able to increase toward the “good” equilibrium. For this to work out, however, public sector prices and wages must also fall by, in principle, the same proportional rate. In fact, to enhance the credibility of the shift toward the good equilibrium, public sector prices and wages should take the lead. If, as is unlikely, there are no frictions and all prices and wages fall by the necessary amount, success would be granted. However, if private sector prices and wages fall by less than is necessary, the relative position of government will be impaired. The fiscal deficit is likely to increase, the best workers in the public sector will be attracted to the private sector, and those that remain may shirk more and be more willing to go on strike. All of which may push the economy back to the bad equilibrium.

**Interenterprise Arrears**

A salient characteristic of transformation programs has been the rapid development of interenterprise credit channels (see Begg and Portes (1992), Calvo and Coricelli (1992), Ickes and Ryterman (1992), Clifton and Khan (1993), Daianu (1993), and Rostowski (1993)). However, interenterprise credit is large also in market economies (see Rostowski (1993) and Begg and Portes (1992)). Therefore, the growth of interenterprise credit in previously centrally planned economies should, in principle, be viewed as a welcome development. Unfortunately, however, the rapid growth of that market has been accom-

---

6Another interesting case of endogenous inflation is when prices are set at time $t$ before knowing money supply at $t$. Under those conditions, a government that is averse to unemployment may end up validating more than one inflation level. A solution for this problem is sometimes sought in incomes policies. For a discussion of wage policy in the context of Poland, see Calvo and Coricelli (1992).
panied by the emergence and, occasionally, the ballooning of interenterprise arrears, that is, involuntary interenterprise credit. The latter is in principle undesirable, since it very much occupies the place that shirking and stealing take in regular market economies.

To capture interenterprise arrears, let us assume that firms can acquire their inputs by paying with cash or by falling into arrears. Let \( \theta \) indicate the share that is, in equilibrium, paid in cash. Taking the extreme case in which arrears are expected never to be paid back, the competitive nominal price of inputs and outputs (recall that inputs and outputs are fully tradable and their foreign currency price is unity whereas, in the simplest model, the exchange rate was set equal to unity) must be \( 1/\theta \).

To put a natural break on arrears, we will assume that they are costly, and that the present discounted value of the cost (in terms of input) of additional arrears is proportional to the latter, where the factor of proportionality is denoted by \( \kappa > 1 \). Hence, focusing exclusively on firms that sell to other firms, the analog of cash accumulation equation (2), where now \( m \) is expressed in terms of input becomes

\[
\frac{\theta_t}{\theta_{t+1}} m_{t+1} = f(x_t) \theta_t - \kappa (x_t - m_t) - \omega \beta_t, \text{ for } m_t \leq x_t. \tag{5}
\]

New arrears per unit of time in terms of output (or input) are equal to \( x - m \), which rationalizes the third term in equation (5). The first term, in turn, is net revenue in terms of input bought in the free market at home. To prove it, notice that nominal gross revenue is \( \theta Pf(m) \) where, as indicated above, \( P = 1/\theta \) = nominal price of output and input in the free market at home. Thus, \( \theta \) remains a factor in equation (5) because it is the relative price of \textit{output in the firm} per unit of time to real cash balances in terms of input bought at home at time \( t \), \( m_t \). The presence of \( \theta \) in equation (5) has nothing to do with the relative price of output with respect to input since, by previous considerations, the latter is always equal to unity. Finally, the factor \( \theta_t/\theta_{t+1} \) accounts for the change in the price of input between periods \( t \) and \( t+1 \).

Given the linearity of the model, solutions will be, as a general rule, of the bang-bang variety. Therefore, to ensure well-defined solutions in which arrears take place but repudiation is not total, we will assume that \( \theta \) cannot fall below some \( \bar{\theta} \) such that \( 1 > \theta > 0 \). Notice that, by equation (5), optimal \( x_t \) will be chosen to maximize the right-hand side of that equation. Thus, at an interior maximum, we have

\[
f(x_t) \theta^t = \kappa. \tag{6}
\]
Moreover, the no-accumulation-of-arrears corner solution obtains if
\[ f'(m) < \kappa, \]  
(7)
whereas the maximum-accumulation-of-arrears corner solution holds if
\[ f'(\frac{m}{\theta}) \theta > \kappa. \]  
(8)

Let us now turn our attention to optimality conditions for \( \omega \). To simplify, we will focus exclusively on steady states, where \( \theta_t = \theta = \) constant through time. As in the previous sections, we will assume that the bounds on \( \omega \) are wide enough for optimal \( \omega \) to be interior to its feasibility region. If \( \theta < \theta < 1 \), then increasing the wage bill by 1 more unit at time \( t \) implies, by equation (5), \( \theta \) less units of real monetary balances at the beginning of period \( t + 1 \), which, if used to pay input in period \( t + 1 \), saves \( \kappa \theta \) in cost of arrears. Thus, the wage bill in period \( t + 1 \) could increase by \( \kappa \) units. In view of expression (3), if the perturbation is taken at the optimal point, a necessary condition for an interior optimum will be \( \kappa = 1 + r \)--a highly unlikely situation. Therefore, as expected, solutions will in general be at \( \theta = 1 \) or \( \theta = \theta \).

Consider the case in which \( \theta = 1 \), that is, no accumulation of arrears. This case is similar to that in the previous section. Therefore, at optimum, \( f'(m) = 1 + r \), which, combined with equation (7), implies that \( \kappa > 1 + r \).

Finally, if \( \theta = \theta \) then, by equations (3) and (5), at optimum,
\[ f'(\frac{m}{\theta}) \theta = (1 + r) \theta + \kappa (1 - \theta). \]  
(9)
When the latter is combined with inequality (8), it implies that \( \kappa \leq 1 + r \).

Consequently, we have shown that no arrears will take place if \( \kappa > 1 + r \), whereas maximum accumulation of arrears will occur if the inequality is reversed.

Therefore, disregarding the possibility of an interior solution, the economy could exhibit a minimum liquidity equilibrium (that is, \( \theta = \theta \)), MLE, and a no-arrears equilibrium (that is, \( \theta = 1 \)), NAE, which corresponds to the equilibrium discussed in the previous section. Notice that, because when \( \theta = 1 \), we have \( f'(x) = 1 + r \), equation (9) implies that, as expected, output is lower at an MLE than at an NAE.

Given \( \kappa \) and \( r \) (\( 1 + r \neq \kappa \)), one of the two equilibria will emerge. However, these variables are, to some extent, endogenous. First, as noted above, the effective interest rate (that is, \( \delta + r \)) is affected by the
firm’s horizon. If the latter is short, the effective interest rate will be large, and a bad MLE is likely to materialize. Second, if as above, the model allows for inflation (nominal interest rate $i > r$), then one can show that all the above conditions hold with $i$ substituting for $r$. Thus, when inflation increases beyond the critical point at which $1 + i = \kappa$, the economy will suddenly shift from the NAE to the MLE. This reinforces the possibility of a bad equilibrium taking hold, because the shift from an NAE to an MLE represents a catastrophic decline in the demand for money (which comes on top of the decline emphasized at the beginning of this section).

In addition, the marginal direct cost of arrears, $\kappa$, is likely to be affected by the amount of arrears. The larger the latter is, the smaller may be the marginal direct cost of arrears, $\kappa$. Thus, an initial liquidity crunch, for example, may force firms into arrears. As the latter accumulate, firms realize that they are not the only ones in trouble and, therefore, that penalties cannot be as severe as when just a few firms fall into financial difficulties. As a result, $\kappa$ may decline so much that the bad MLE takes hold. In other words, an initial credit crunch could generate a situation in which interenterprise arrears accumulate without bound and output is permanently lower than in the no-arrears situation.

Obviously, much of the previous policy discussion applies to the present case. The present model, however, allows us to address the question of whether the clearing of arrears could be an effective policy to drive the economy to the good NAE. The model suggests two reasons for being skeptical. First, firms’ horizons could be very short and, thus, $\kappa$ would have to be very large to induce firms to avoid falling into arrears. Besides, large $\kappa$s may be hard to implement because bankruptcy is either nonexistent or bankruptcy procedures are exceedingly slow. Second, $\kappa$ may depend not only on past arrears but also on expected arrears. Thus, the MLE could be quickly regenerated if firms expect that the previous arrears situation will re-emerge in the future.

Our skepticism is supported by experience in countries like Romania, where the elimination of arrears has quickly been followed by a buildup of new ones. Therefore, our discussion suggests that the solution in such cases must be found in massive privatization and effective bankruptcy regulations.

**A Closer Look at the Evidence**

The above discussion has suggested that (1) a contraction in real liquidity of enterprises is likely to lead on impact to a fall in output; (2) real wages tend to decline on impact. The speed of recovery of wages
depends on the characteristics of the workers’ objective function, on the workers’ horizon, and on the timing of wage payments.\(^7\) The initial contraction in output may be sustained by a short horizon of the firms, by a fall in money demand, and by a “demonetization” of enterprise transactions, associated with the blossoming of interenterprise arrears.

The model in previous sections implies a relatively homogeneous impact effect of the credit contraction. By contrast, the dynamic adjustment is likely to be highly heterogeneous. Indeed, even starting from similar initial conditions, countries may settle down on very different equilibria. The channels affecting convergence toward a specific equilibrium are diverse and are likely to play different roles across countries and over time within countries.

Limitations on data availability severely constrain the empirical test of these implications. In particular, we will not attempt to carry out an in-depth analysis of the dynamic adjustment in the different countries. Nevertheless, there are a host of stylized facts and more detailed evidence on some of the countries that lend support to the simple models developed in the previous sections. These stylized facts depict countries that seem to share the initial contractionary effects of credit tightening, whereas their dynamic adjustment after the initial shock is significantly differentiated. Although the experience with stabilization is too fresh to permit clear distinction of the successes from the failures, there seems to be a marked differentiation between one group of countries—the former Czechoslovakia, Hungary, and Poland—which, despite large initial costs, appears to be on a path toward the good equilibrium, and another group of countries—Romania and Russia—which has not yet succeeded in stabilizing inflation nor shown signs of recovery of economic activity. Available information, however, does not allow us to analyze in detail the dynamic adjustment of the various countries.

The following sections provide evidence that the difficulties of stabilizing these economies could have partly resulted from an excessive initial tightening of liquidity conditions. Once the economy has settled into an equilibrium with low liquidity and low output, relaxing monetary policy tends to be ineffective to reactivate production.

\(^7\) In the linear specification of the workers’ utility function discussed above, wages will stay at their minimum level to maximize the speed of recovery of the steady-state level of output. Calvo and Coricelli (1992) show that with a concave utility function, real wages grow along the path to the steady state. Finally, it can be shown that if wages enter the liquidity in advance constraint of the firm, optimal paths exist along which wages grow at the same rate as liquidity, and output remains constant.
Thus, monetary expansion tends to be reflected in higher inflation, giving rise to the stop-go cycle observed in countries like Russia and Romania. As discussed below, the same nature of the response of the economy to the initial liquidity contraction tends to exert pressure for a relaxation of policies.

In addition to factors related to credit markets, uncertainty on property rights and on the timing and characteristics of changes in ownership and control of enterprises plays a fundamental role in affecting the supply response during the transition.

**Initial Credit Crunch**

Table 1 shows that—except for Hungary—all Central and East European countries were characterized by a sharp drop in real credit to enterprises at the beginning of their reform programs. This drop was partly planned, as indicated by the credit targets. However, the actual decline was much larger than planned, especially for the former Czechoslovakia and Poland. The larger-than-expected decline in real credit was determined by a larger-than-anticipated jump in the price level. With Poland as an outlier, there seems to be a correlation between the pre-liberalization ratio of broad money to GDP—a very rough proxy for ex ante monetary overhang—and the size of the initial price level jump (Chart 3). However, the price jump has invariably been higher than anticipated, and the size of the initial adjust-

**Chart 3. Initial Price Level Jump**

*Inflation during the first month after price liberalization (in percent).*
ment seems to have been tightly connected with the increase in administered prices and the devaluation of the exchange rate.

Accordingly, the behavior of the price level seems to have reflected some rigidity in the price system, either because of the large initial devaluation of the exchange rate followed by a fixed peg—as in Poland and the former Czechoslovakia—or because of the large increase in administered prices. In fact, in some countries both factors played a role (see also the discussion in Bruno (1992)). Thus, the assumption of an initial exogenous contraction in real bank credit appears plausible.\footnote{An additional, indirect indication that the credit contraction at the beginning of the reform programs was not determined by an exogenous decline in the financing needs of enterprises is suggested by the fact that interenterprise credit (or arrears) increased in relation to bank credit in every country (see discussion below).}

For Poland, data availability—especially cross-section data—permits a more detailed empirical analysis. At a macroeconomic level the association between the contraction in credit and the drop in output is striking. Indeed, the fall in output accompanying the credit crunch was sudden, concentrated in the first two months of 1990. The empirical analysis of the output-credit link cannot be based on a time series analysis, as January 1990 coincided with a change in regime for the Polish economy. However, a closer inquiry into the role of credit factors in the initial collapse of output could be based on cross-section information.

The cross-section analysis may shed some light on the relation between the initial structure of credit markets inherited from the past and the sectoral behavior in response to the policy changes of January 1990. In particular, the first model developed above implies that the initial distribution of liquidity across sectors is a key determinant of the output behavior following the credit crunch. Indeed, with credit market segmentation, the effect of a credit contraction is likely to have heterogeneous effects across sectors. Specifically, sectors that are more dependent on outside sources of finance, in particular bank credit, are likely to be harder hit, as they cannot easily replace bank credit with alternative sources of financing. An empirical test of our view would in principle require information on the initial liquidity position of firms/sectors, and on the possible sources of liquidity for firms, in particular the stocks of input inventories, whose movements alter the liquidity constraint of firms at a point in time. Unfortunately, we do not have data on the sectoral distribution of liquidity. We are thus forced to use bank credit as a proxy for enterprise liquidity.
Table 2. Poland: Regressions on Output and Credit, 1990.I/1989.IV

(Dependent variable: change in real output)

<table>
<thead>
<tr>
<th></th>
<th>OLS</th>
<th>TSLS2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.24</td>
<td>-0.19</td>
</tr>
<tr>
<td></td>
<td>(12.40)</td>
<td>(6.70)</td>
</tr>
<tr>
<td>Change in credit3</td>
<td>0.02</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>(0.71)</td>
<td>(2.10)</td>
</tr>
<tr>
<td>&quot;Credit dependence&quot;4</td>
<td></td>
<td>-0.27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.45)</td>
</tr>
<tr>
<td>R²</td>
<td>0.01</td>
<td>0.07</td>
</tr>
<tr>
<td>Observations</td>
<td>85</td>
<td>85</td>
</tr>
</tbody>
</table>

Figures in parentheses are t-statistics.

Two-stage least-squares. Instruments: constant and credit dependence as defined above.

3Log-difference.

4Ratio of bank credit to total costs at the end of 1989.

Notwithstanding these caveats, the negative association between ex ante credit dependence and the change in output at the beginning of 1990 shown in regression (2) in Table 2 is suggestive of the importance of the inherited credit market structure on output behavior. Of course, one would like to go beyond this simple correlation between ex ante credit dependence and initial output performance and try to assess the quantitative impact of the change in the liquidity conditions of enterprises on output. As shown in Table 2, a simple ordinary least-squares (OLS) regression on changes in output and changes in credit indicates a very weak statistical relation between credit and output across sectors. However, one might have expected to find a weak correlation between output and credit, given that the change in bank credit may be a poor proxy of the change in liquidity of enterprises. Indeed, the output effect of the credit contraction is mediated by the adjustment of other variables—for instance, inventories—affecting the liquidity of firms, in a way that makes the change in output at the firm/sector level only slightly related to the change in credit to that firm/sector.

This phenomenon may arise, for instance, if we assume that reducing the stock of inventories gives rise to adjustment costs, resulting in

Credit dependence is measured by the ratio of bank credit to total costs before the implementation of the stabilization program in the last quarter of 1989.
output losses, which are not very sensitive to the size of the inventory adjustment. In the limit, these adjustment costs may be fixed, thus totally independent of the size of the change in inventories. In this case, the output loss associated with an inventory reduction induced by a credit crunch is going to be evenly spread across sectors, and thus uncorrelated with the size of the sectoral contraction in credit. At the macroeconomic level, one would still observe a correlation between credit contraction and output decline. However, at the microeconomic level, the direct association between credit and output is lost. Therefore, even without resorting to the presence of price rigidities, the credit crunch could have large output effects through the reduction in inventories. In addition, if one assumes price rigidities, the output decline would be determined by the reduction of the demand for inventory goods by firms that deplete their stocks of input inventories (see discussion in Calvo and Coricelli (1992)). Even in this case the cross-section regression would likely generate no significant impact of credit on output, as the effect of credit on output depends a lot on the distribution of inventories across firms.

The above discussion suggests that the role of financial constraints can be better detected by analyzing the behavior of inventories in response to the contraction in bank credit. An extended version of our model incorporating inventories would have clear cross-section implications, as firms/sectors suffering a more severe credit squeeze should display a sharper decline in inventories (see discussion in Calvo and Coricelli (1992)).

Table 3 contains the results of several regressions on the behavior of input inventories in the first quarter of 1990 for 85 branches of Polish industry. The macroeconomic importance of the behavior of inventories can be appreciated by noting that during the first quarter of 1990 the stock of input inventories in our sample dropped in real terms by about 30 percent. We focus on input inventories as they are the relevant aggregate for the credit view exposed above. Nevertheless, it is worth noting that credit factors have a large and significant effect on the behavior of finished goods inventories (see also Berg and

10 An analogous phenomenon would apply to interenterprise arrears, as discussed above. Indeed, a credit contraction would lead to an increase in arrears, which produce output losses independently of the size of the arrears at the individual firm. Unfortunately, we do not possess at this time sufficient information to carry out an econometric analysis of interenterprise arrears.

11 For instance, firms rich in inventory will have the opportunity of replacing a large proportion of bank credit and maintain output, while firms with poor inventory would suffer output losses even if they suffered, relative to the other firms, a smaller proportional decline in bank credit.
Blanchard (1992)). We concentrate on nominal values, since a relevant price deflator for input inventories is not available, both for inventories and credit. However, most of the results are robust to the use of real measures of both inventories and credit, and to different price deflators.

The first regression in Table 3 displays the result of a simple bivariate regression, including only the change in bank credit as an explanatory variable. The coefficient on the credit variable is significant at the 2 percent level, and the point estimate implies that on average about 15 percent of the change in inventories is explained by the change in credit. In the second regression we control for other factors that may affect the change in inventories by introducing the change of sales as an additional explanatory variable. Although slightly reduced, the coefficient on the credit variable remains significant at the 3 percent level.

Moreover, we ran simple OLS regressions using an ex ante measure of credit dependence instead of the change in credit. The sign of the credit dependence variable is negative as expected and significant at the 1 percent level. This result confirms the importance of the ex ante credit dependence on the sectoral behavior, suggesting the empirical relevance of credit market segmentation. In addition, the use of an ex ante measure of credit dependence is immune from problems of endogeneity of the credit variable.

<table>
<thead>
<tr>
<th>Regression Type</th>
<th>OLS</th>
<th>TSLS²</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.64</td>
<td>0.40</td>
</tr>
<tr>
<td>(16.68)</td>
<td>(7.97)</td>
<td>(20.19)</td>
</tr>
<tr>
<td>Change in credit Lily</td>
<td>0.13</td>
<td>0.08</td>
</tr>
<tr>
<td>(3.28)</td>
<td>(5.98)</td>
<td>(2.40)</td>
</tr>
<tr>
<td>Change in sales a</td>
<td>0.38</td>
<td>0.33</td>
</tr>
<tr>
<td>(2.26)</td>
<td>(4.44)</td>
<td></td>
</tr>
<tr>
<td>&quot;Credit dependence&quot; b</td>
<td>-0.27</td>
<td></td>
</tr>
<tr>
<td>(3.34)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.11</td>
<td>0.38</td>
</tr>
<tr>
<td></td>
<td>0.11</td>
<td></td>
</tr>
</tbody>
</table>

1Sample: 85 observations; figures in parentheses are t-statistics.
2Instruments: constant, change in sales and credit dependence as defined above.
3Log-difference.
4Ratio of bank credit to material costs at the end of 1989.
To further account for the possibility of endogeneity of the credit variable we also carry out a two-stage least-squares (TSLS) regression, using the credit dependence index as an instrument for the credit variable. The results of the TSLS estimation essentially confirm those of the OLS regressions.

In sum, all specifications yield a significant and quantitatively important effect of the credit variable on inventory behavior. These results are suggestive of the importance of the credit channel at the beginning of the Polish reform program, although the inventory equations cannot help establish the quantitative effect on output of the credit contraction. Nevertheless, the above analysis suggests that a large proportion of the output behavior that in the output-credit regression is captured by the constant can in fact be associated with the credit channel through the output effect of the inventory contraction. Moreover, the fact that the ex ante credit dependence proves to be consistently significant both in inventory and output equations is suggestive of the important role of credit market factors in the behavior of real variables in the initial stages of reforms in Poland. This is somehow a remarkable result, if one takes into account the degree of noise present in a system like Poland in 1990 undergoing a radical change in economic regime.

Another way, consistent with the first model above, of establishing the importance of the credit view is to analyze the behavior of wages at the outset of the stabilization programs. In the same sectoral sample used for the output and inventory regressions for Poland in 1990, we find that the change in credit has a positive, and statistically significant, impact on the sectoral change in the wage bill (Table 4).12

More generally, the phenomenon of "borrowing from workers" predicted by the first model above seems to have been relevant not only in Poland but also in Bulgaria, the former Czechoslovakia, and Romania at the outset of reforms, as shown by increases in wages below the ceilings imposed in the stabilization programs (see Calvo and Coricelli (1993)).

---

12 However, the results are highly sensitive to the specification of the regression. In particular, in a log-linear specification the coefficient on credit was not significant. Nevertheless, the linear specification arises naturally from the budget constraint of the firm.
Table 4. Poland: Regressions on Wages and Credit, 1990.I/1989.IV1

(Dependent variable: change in nominal wage bill)

<table>
<thead>
<tr>
<th></th>
<th>OLS Regressions (1)</th>
<th>OLS Regressions (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>6667</td>
<td>6890</td>
</tr>
<tr>
<td></td>
<td>(4.84)</td>
<td>(6.48)</td>
</tr>
<tr>
<td>Change in credit</td>
<td>0.10</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
<td>(8.07)</td>
<td>(3.07)</td>
</tr>
<tr>
<td>Change in sales</td>
<td>0.01</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>(4.35)</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.01</td>
<td>0.07</td>
</tr>
<tr>
<td>Observations</td>
<td>85</td>
<td>86</td>
</tr>
</tbody>
</table>

1Figures in parentheses are t-statistics.
2First difference.

Dynamic Response: Inflation, Firms’ Horizon, and Interenterprise Arrears

As shown in Chart 2, despite some signs of recovery in the former Czechoslovakia, Hungary, and especially Poland, three years into the reform programs economic activity remains rather depressed, particularly in industry. The first model discussed above, based on a "representative firm," implied that the optimal behavior of a firm that maximizes the welfare of its workers would lead to a relatively fast recovery toward steady-state output. It was also stressed that uncertainty on the timing of privatization, by shortening the horizon of the workers (that is, increasing the "effective" discount rate from \( r \) to \( r + \delta \)), could hinder the output recovery. This factor likely played an important role in most previously centrally planned economies, perhaps with the exception of the former Czechoslovakia and Hungary. In Poland, Romania, and Russia, after a short-lived initial period of wage moderation, real producer wages increased significantly.

In Poland, for instance, although during the first months of the program wages were set well below the wage ceilings, by the end of 1990 they overshot the ceilings and stayed above them for most of 1991. Despite falling output and growing unemployment, the share of enterprise value added appropriated by labor increased sharply.13

13In industry, the share of the wage bill in gross value added increased from about 18 percent at the beginning of 1990 to 45 percent at the end of 1991.
As a result, profitability fell over time, reducing the source of self-financing for enterprises. This seems to support the view of a shortening of the horizon of firms. Interestingly, in 1992 there was a switch in behavior. Apparently, the fear of continued wage pressure and decapitalization of firms was averted. A possible explanation for the change in wage behavior may be associated with a lengthening of firms' horizons owing to a reduction of privatization risk (δ in the model of the first part of the previous section). Indeed, the continued delay of the mass privatization program may have signaled a generalized delay in privatization. In addition, and perhaps more important, programs of enterprise restructuring have emphasized the voluntary character of privatization—privatization becoming increasingly a "negotiated" process—and have enhanced the role of the insiders, both managers and workers, in the privatization process. This is likely to have reduced the risk of privatization, either by postponing the eventual date of privatization or by providing the workers a stake in the process. Both factors should induce a lengthening of the workers' horizon.14

As discussed above, another important channel hindering the recovery of output is related to the persistence of inflation, and the consequent decline in money demand.

Inflation following stabilization varied sharply across countries. The former Czechoslovakia, Hungary, and Poland have been characterized by relatively low rates of inflation in the first two-three years after reforms. By contrast, Romania and Russia have failed to reduce inflation significantly after the initial price level jump. In fact, in Russia inflation has not abated more than one year after price liberalization and is hovering near hyperinflationary levels (Chart 4).

High-inflation countries have also displayed a continuous decline in real monetary balances, while low-inflation countries did not experience such a process of sustained "demonetization." Chart 5 shows the behavior of money velocity and identifies a clear differentiation between the behavior of Romania and Russia on one side and the former Czechoslovakia, Hungary, and Poland on the other. Velocity jumped in the aftermath of price liberalization in Bulgaria, Poland,

---

14This pattern seems to have been the one prevailing in Hungary since 1990 (Coricelli and Lane, 1993). Moreover, the importance of privatization risk in affecting wage behavior seems to be confirmed by the experience of the former Czechoslovakia. Indeed, in the former Czechoslovakia the initial drop in real wages has not been followed by any significant wage pressure. The very rapid process of privatization and the direct stake given to every citizen, through the purchase of vouchers, may have been important factors in determining wage moderation. For a discussion of privatization and the role of insiders in Eastern Europe, see Frydman and Rapaczynski (1993).
Chart 4. Inflation

Panel A. Monthly CPI Inflation

- Poland
- Former Czechoslovakia
- Hungary
- Romania
- Russia
Romania, and Russia, while it remained stable in the former Czechoslovakia and in Hungary. In the second year of their reforms, velocity declined significantly in Poland and, to a lesser extent, in the former Czechoslovakia and Hungary, indicating a process of "remonetization." By contrast, velocity continued to increase in Romania, signaling a continued fall in money demand.

Even when appended to privatization risk and endogenous money demand, the model of the "representative firm" provides an incomplete account of the dynamic adjustment of countries in transition. Indeed, independent of the incentives at the level of the individual firm, there could be problems in coordinating the recovery to the full-employment output in a system with interdependent firms. As shown in the previous section, when firms interact with each other the good equilibrium with output recovering its full-employment level is only one of the possible equilibria. Bad equilibria with low output and low liquidity can arise. A main force determining this multiplicity of equilibria is associated with interenterprise arrears.

Arrears have grown in some countries from zero to amounts larger than overall bank credit or broad money (Table 5). Moreover, the heterogeneity of the behavior of arrears across countries may offer an
Chart 5. Money Velocities¹

Table 5. Interenterprise Arrears²
(Ratio of interenterprise arrears to bank credit)

<table>
<thead>
<tr>
<th></th>
<th>Poland</th>
<th>Romania</th>
<th>Hungary</th>
<th>Former Czechoslovakia</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989.IV</td>
<td>1.6</td>
<td>...</td>
<td>0.2</td>
<td>0.0</td>
<td>...</td>
</tr>
<tr>
<td>1990.I</td>
<td>1.7</td>
<td>...</td>
<td>0.1</td>
<td>0.0</td>
<td>...</td>
</tr>
<tr>
<td>1990.II</td>
<td>1.2</td>
<td>...</td>
<td>0.2</td>
<td>0.0</td>
<td>...</td>
</tr>
<tr>
<td>1990.III</td>
<td>0.9</td>
<td>...</td>
<td>0.2</td>
<td>0.1</td>
<td>...</td>
</tr>
<tr>
<td>1990.IV</td>
<td>1.0</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>...</td>
</tr>
<tr>
<td>1991.I</td>
<td>0.9</td>
<td>0.5</td>
<td>0.2</td>
<td>0.1</td>
<td>...</td>
</tr>
<tr>
<td>1991.II</td>
<td>0.9</td>
<td>0.7</td>
<td>0.2</td>
<td>0.2</td>
<td>...</td>
</tr>
<tr>
<td>1991.III</td>
<td>0.8</td>
<td>1.1</td>
<td>0.2</td>
<td>0.2</td>
<td>...</td>
</tr>
<tr>
<td>1991.IV</td>
<td>1.0</td>
<td>1.9</td>
<td>0.2</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>1992.I</td>
<td>0.9</td>
<td>0.2²</td>
<td>...</td>
<td>...</td>
<td>0.9</td>
</tr>
<tr>
<td>1992.II</td>
<td>0.9</td>
<td>1.4</td>
<td>...</td>
<td>...</td>
<td>2.3</td>
</tr>
<tr>
<td>1992.III</td>
<td>0.9</td>
<td>0.9</td>
<td>...</td>
<td>...</td>
<td>0.8³</td>
</tr>
<tr>
<td>1992.IV</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

¹Velocity is measured as GDP/average broad money (M2).
²1992 data are up to June.
⁻¹For Poland, the figures refer to interenterprise credit, whereas for the other countries they refer only to arrears, that is, overdue credits.
⁻²At the beginning of the year arrears were cleared through the global compensation scheme.
⁻³The figure is for July. In July bank credit was injected into the system to clear the arrears.
important clue for understanding the different macroeconomic situations characterizing the various countries. Interestingly, the countries that we identified above as unsuccessful in stabilizing their economies are those displaying an explosive behavior of arrears.\textsuperscript{15}

\textit{Interenterprise Arrears}

In the area of interenterprise arrears country experiences were remarkably heterogeneous (Daianu, 1993; Rostowski, 1993). Specifically, arrears have literally exploded in Romania and Russia, whereas they have increased much less in Hungary and Poland. Moreover, after operations to clean up the arrears, both in Romania and Russia, arrears have rapidly grown again (Chart 6).\textsuperscript{16}

In the model on interenterprise arrears in the previous section the main determinant of arrears was summarized by the parameter $\kappa$, a proxy for the marginal cost of running into arrears for the individual firm. It was also suggested that such a cost is a decreasing function of the aggregate size of arrears. If firms cannot coordinate ex ante their behavior, there can be multiple equilibria with different levels of arrears.

If firms attach a positive probability to the government validation of the arrears through money creation, the likelihood of the high arrears equilibrium obviously increases. The cases of Romania and Russia clearly illustrate such a phenomenon of self-fulfilling prophecy. Indeed, in both countries the government response to the explosion of arrears has been a generalized cleanup effected through injection of bank credit. Not surprisingly, arrears have grown rapidly soon after these cleanup operations were implemented, confirming the important role of the expectation of a bailout for the growth of arrears. In particular, as this expectation is probably linked to the size of aggregate arrears, the latter may be one of the channels through which $\kappa$ becomes a decreasing function of aggregate arrears. The time-series behavior of arrears in Poland offers additional evidence on the importance of credibility of the stabilization program in affecting the accumulation of arrears. Indeed, at the beginning of the program, when credibility was probably high, interenterprise credit fell

\textsuperscript{15}The former Czechoslovakia is somehow an outlier. Indeed, arrears grew very rapidly in a context of low inflation. This suggests—contrary to what is argued in Rostowski (1993)—that credibility of the stabilization program is not the only factor affecting interenterprise arrears. Nevertheless, in relation to bank credit, arrears in the former Czechoslovakia remain much lower than in Romania and Russia.

\textsuperscript{16}In Romania with the so-called global compensation scheme at the end of 1991 (see Clifton and Khan (1993)), and in Russia in July 1992.
Chart 6. Interenterprise Arrears
(PPI deflated)

- Bank Credit
- Interenterprise Credit

Poland

Former Czechoslovakia

Hungary

Romania

together with bank credit. As the credibility of the program weakened starting in the second half of 1990, interenterprise arrears began to move in the opposite direction to bank credit. The correlation coefficient between interenterprise credit and bank credit, or enterprise money, is indeed negative after the first half of 1990. The change in the behavior of interenterprise arrears mirrors the change in wage behavior discussed above.

In addition to the issue of credibility of the no-bailout stance, institutional factors may affect the perceived individual cost of running into arrears. Ultimately, these institutional factors relate to unclear property rights and the consequent lack of credible bankruptcy threat, which in turn rules out the possibility of enforcing private contracts.

Finally, the possibility for suppliers to switch to different customers is another important factor in affecting the expected cost of running into arrears. Given the highly concentrated structure of domestic markets and the rigid network of relations imposed by the central plan, in the initial stages of reform the flexibility of supplier-customer relations is likely to be associated with opportunities for exports. Hungary and Poland stand out as the countries with a more rapid growth of exports to market economies. This may have implied a high \( k \) for these economies, which in turn can account for the moderate increase in interenterprise arrears.

In sum, the multiple equilibrium model of the previous section helps characterize the different experiences across countries as different equilibria, largely associated with different perceived microeconomic costs of running into arrears (the parameter \( \kappa \)). However, the model also illustrates certain key features of interenterprise arrears. Specifically, it generates a network, or chain, of arrears in a system in which all firms are viable—have nonnegative profits. This condition is important because it permits a view of interenterprise arrears as a form of stable equilibrium. The presence of loss-making firms would imply that in the chain of arrears a group of firms is subsidized by other firms, an unlikely sustainable phenomenon. Of course we do not deny that arrears reflect also the presence of loss-making firms. However, we claim that this is not the dominant feature of arrears. The mechanics of the chain of arrears, its features, and potential inefficiencies are illustrated graphically in Figure A1 in the annex.

The empirical relevance of the view of arrears as an equilibrium network can be analyzed for Romania, for which micro data on all state-owned industrial enterprises are available for 1992. These data permit analyzing (1) the degree of "circularity" of the process, namely, how important are the debts of firms that have a roughly
balanced debt-credit (payables and receivables) position; and (2) the role of loss-making firms in the network of arrears. Finally, we report some suggestive evidence from a small-scale enterprise survey that provides qualitative answers on the features and determinants of arrears in Romania.

One simple measure of the degree of circularity is given by the ratio of total net arrears, defined as the sum of net debt positions of net debtor firms, to total gross arrears. This ratio has hovered between 25 and 30 percent during 1991 and 1992, indicating that most arrears are a substitute for enterprise liquidity. Perhaps even more relevant is the number of firms involved in the network of arrears and the number of firms with significant net debt positions. For instance, in June 1992, out of 1,692 state industrial firms, 1,455 displayed arrears in payments to suppliers, while most net arrears were concentrated in a handful of firms. Therefore, the vast majority of Romanian firms have both debts and credits of similar magnitudes, clearly illustrating the phenomenon of chain of arrears, where net arrears are not highly significant.

Regarding the importance of loss-making firms, only 200 firms, or 12 percent of the total number of firms, are loss making, and they do not absorb a disproportionately large share of arrears—in relation to their sales, for instance. Their share in total gross arrears is about 15 percent, while their share in total sales is about 10 percent (September 1992 data). Although loss-making firms are important recipients of net arrears, they do not play a crucial role in the whole chain of arrears.

In addition, results from a small-scale survey (of 30 firms) carried out at the end of 1992 by the World Bank seem to confirm the above discussion. In assessing the main causes of arrears in payments to suppliers, the most important reason is perceived to be the arrears in payments by their own customers. This seems consistent with the concept of a self-sustaining network of interenterprise arrears. The survey also shows that in the sample only between 5 and 25 percent of firms' purchases are effected in cash. Firms revealed that in the hierarchy for the use of cash, wages are the first priority, whereas payments to suppliers are the last, coming after wages, banks, and taxes. This seems to be consistent with a system in which transactions among enterprises take place with very little use of cash, while cash is mainly used for wage payments. Finally, the survey indicated that at the end of 1992—one year after the cleanup of arrears—almost 80 percent of firms expected a new government bailout.

Indeed, 80 percent of net arrears were concentrated in 100 firms, accounting for 27 percent of sales, while the largest 10 debtors accounted for 50 percent of net arrears.
The same features of arrears just described may also help explain the pressures for government intervention. As noted in Calvo and Frenkel (1991), the interlocking relations induced by arrears hinder the possibility of an efficient selection among good and bad enterprises, and it creates the risk of a domino effect with good firms being dragged into trouble by firms in difficulties. Therefore, it is the far-reaching ramification of this network that seems to have triggered government intervention in countries like Romania and Russia.

Another important implication of the model of arrears in the previous section is that with arrears domestic prices tend to be higher than world market prices and that the price level is directly proportional to the share of arrears in sales. The model provides a possible explanation for the puzzling price jump in producer prices in Russia in 1992, which was much higher than the increase in consumer prices. Moreover, within producer prices, the increase in prices of inputs for production was much higher than the increase in prices of consumer goods. This phenomenon, indeed, could reflect the lack of cash payments for intermediate products, in contrast with the dominance of cash payments for consumer goods.18

Concluding Remarks

The paper supports the conventional view that structural reforms are essential to improve allocation and utilization of resources in previously centrally planned economies. Firms have to be given incentives to operate under long planning horizons, and bankruptcy regulations have to become effective. Unfortunately, however, these reasonable objectives could take an inordinate amount of time. Privatization is a lengthy process, and for bankruptcy regulation to become effective legal courts must not be hampered by other offsetting regulations and the legal profession must learn to navigate in the new waters. In the meantime, thus, palliatives and extra caution in choosing macropolicies is required.

In that respect, the approach adopted in the paper suggests that credit markets should be carefully monitored. A key characteristic of previously centrally planned economies at the beginning of their economic transformation programs is the lack of well-developed credit markets. In particular, the economy strongly depends on the existing,

18Lipton and Sachs (1992) have argued that one of the main reasons for high producer prices in Russia was associated with the lack of use of cash for enterprises’ purchases. Their explanation is different from ours. They argue that there was an excessive supply of credit—of noncash rubles—for enterprise transactions.
largely official, banking system. Therefore, for example, a cut in bank
credit is tantamount to a cut in total credit, implying that a stabiliza­
tion program aimed at sharply lowering inflation may excessively
reduce the amount of credit available to enterprises and, thus, cause
an unduly large fall in output. The paper has further argued that the
initial credit contraction could put the economy on a path in which
output is permanently lower than its potential. Once the economy is
locked into the “bad” low-output equilibrium, however, credit
expansion may just result in higher inflation, not higher output. Con­
sequently, this fundamental asymmetry would call for ensuring that
the credit market is not unduly strained during the first stages of an
economic transformation program. Specifically, the vulnerability of
the credit market and its dependence on official sources strongly
suggests that an effective anti-inflation policy should be accompanied
by measures that prevent an unduly large credit contraction when the
transformation program starts.

In that connection, it is essential to deactivate the price/wage
“engine.” As argued in the paper, short horizons and low default
costs are conducive to low-output equilibria. Thus, until privatization
and bankruptcy regulations become effective, it would be necessary
to give further incentives to enterprises to try to offset those distor­
tions. One possibility that has been experimented with in several
recent programs is a ceiling on wages. The effectiveness of this mea­
sure, however, is highly dependent on the government coming to a
binding agreement with labor (like in the Mexican Pacto)—not a very
likely precondition in previously centrally planned economies. There­
fore, wage ceilings may have to be supplemented by other measures
that give further incentives to enterprises to stay below the ceiling.
For example, credit itself may be a function of whether a firm com­
plies with the wage ceiling regulation. Moreover, managers’ salaries
could be subject to cuts, or managers themselves could be subject to
dismissal if their firms fail to comply.

The agenda for future research is still long and crowded. First, we
need to know more about the actual mechanics of credit markets in
previously centrally planned economies, which can only be obtained
through thorough data gathering. In this respect, the above models
could serve as a guide on what to look for. For example, the models

\[19\] Alternatively, enterprises could be taxed on wages in excess of the ceiling. How­
ever, Poland in 1990 suggests that this is not a very effective policy (see Calvo and
Coricelli (1992)), because when workers are set to “cannibalize” a firm, they may not
really much care about its net worth, since they are not the owners. In contrast, a credit
crunch has immediate consequences.
suggest that private and public firms must behave differently about liquidity accumulation, since private firms likely display a lower rate of effective time preference. Second, we should explore models that incorporate oligopolistic and key political economy aspects of previously centrally planned economies. Third, a more systematic testing of models should be carried out.
The Mechanics of the Chain of Arrears

Figure A1 represents a system of three interconnected firms, labeled F1, F2, and F3, which are forced to conduct "cash" transactions with households. Solid lines connecting firms indicate flows of goods or services, while dotted lines indicate flows of "cash." Numbers directly above the lines indicate values ("peso" sums). Therefore, in this system F3 sells final goods to households valued in 20 "pesos" in exchange for the same amount in "cash." F1 is the other firm dealing with households. It hires labor for "cash"—the wage bill being 10 "pesos." In addition, the production process requires F2 to supply inputs to F3, valued at 120 "pesos," valued at 100 "pesos," and F1 to F2, valued at 110 "pesos." However, contrary to the firms-households trades, the "cash" counterpart of interenterprise trade is significantly less than the value of goods supplied. Thus, F2 pays nothing to F1, and F3 pays only 10 "pesos" to F2 on a transaction valued at 120 "pesos." More interestingly, F3 sells inputs to F1 by 100 "pesos" and, in addition, lends 10 "pesos" in "cash" to F1. This allows F1 to hire workers.

The network depicted in Figure A1 could have come to life after the initial price/wage jump. The jump gave rise to a "cash" shortage, and thus "cash" ended up being exclusively utilized for transactions between firms and households, with interenterprise transactions financed by falling into arrears. However, no firm is a net borrower—no firm is implicitly subsidized by borrowing more than it could repay if its debtors did not default. This is so because each firm increases its arrears by 110 "pesos" each period but, at the same time, its customers also do so by the same amount. The system is feasible and could, in principle, continue operating indefinitely. However, gross arrears grow without limit. Notice that the system as a whole uses less cash and, thus, conventional statistics will exhibit a fall in real liquidity. Arrears may be a poor substitute for "cash" when firms are interconnected as in Figure A1. The equilibrium there, for example, depends on F3 being willing to lend 10 "pesos" to F1, even though the latter will not be able to repay the loan, and even though the loan is not directly connected with the goods sold to F1. In contrast, if F3 keeps the 10 "pesos" for itself, F1 will not be able to hire labor, which implies that there will be no inputs for F2. F2 output will collapse, and F3 will not be able to produce. Thus output everywhere grinds to a complete halt. Leaving aside the externalities stressed in the model of interenterprise arrears, these arrears are not per se detrimental to
Figure A1. Interenterprise Arrears: A Circular System with Viable Firms
output. In fact, their presence may have cushioned the impact of the initial liquidity crunch. However, the major drawback of interenterprise arrears is that they slow the process of adjustment. In the case portrayed in Figure A1, for example, input prices are independent of "cash" supply. The same real equilibrium could be attained if F3 billed F1 for 200, F1 billed F2 for 220, and F2 billed F3 for 220 "pesos." Thus, interenterprise trades without the discipline of "cash" payments result in weak price signals. Another implication of Figure A1 is that once the network of interenterprise arrears is established, the health of a given firm becomes intimately dependent on the health of the system as a whole, which again interferes with adjustment (see Calvo and Frenkel (1991)).

References


Lipton, David, and Jeffrey D. Sachs, "Remaining Steps to Achieve a Market-Based Monetary System" (unpublished; 1992).


Comment

Rudiger Dornbusch

With the devastating decline in output of transition economies to be explained, the Calvo-Coricelli paper offers a welcome hypothesis and even evidence of a channel so far largely disregarded. Their claim that the compression of real working capital must account for some of this output decline is altogether plausible—if working capital is productive, then, other things being equal, a sharp reduction in the real value of these assets must have real effects. How much of an effect real credit contraction has, and in what exact ways it influences output, is another issue, although even here the authors make progress by offering empirical evidence.

The emphasis on credit as an important aspect of the financial transmission mechanism is entirely fashionable. In U.S. macroeconomics the question of money versus credit continues to be hotly debated. Interestingly, the working capital perspective has not been an important part of that discussion. Rather the link has been made between financing and investment rather than between finance and production. It would be interesting therefore to investigate further whether the authors’ working capital hypothesis could be identified in the context of advanced economies. Whatever the findings might be, Calvo and Coricelli are right to emphasize that the price shock of Eastern Europe offers a natural experiment. The price liberalization, without commensurate expansion of money and credit aggregates, leads to an exogenous real contraction. In segmented credit markets in which firms cannot replenish their finance fully by borrowing, real credit contraction limits their ability to finance inputs and hence production. In principle we therefore can unscramble how money and credit work. The more segmented and imperfect credit markets are, the more strongly their effect should come to the forefront.

In the model discussed here there is a lag between the application of inputs and the resulting output. Let a and b be the unit labor and material coefficients of a competitive firm, P, W, M, and i the price, wage, materials cost, and nominal interest rate. With competitive capital markets and a one-period input-output lag for materials and for a share of wages, discounted price would equal marginal (average) cost. Output at the level of the firm is indeterminate.

\[ P_{t+1}(1+i) = \lambda a W_t + b M_t + (1-\lambda)W_t + \gamma(1+i). \] (1)

\(^{1}\)See Bernanke (1993) for a fine survey.
Tight credit in this situation of perfect capital markets means higher real interest rates. Accordingly the relation between future prices and current costs will change. But there are no implications for output. To look at output, the demand response to changes in the relative prices of credit-intensive goods would have to come into play.

But with a credit constraint $K_t$, one moves away from a pricing equation to a limitation of output. The amount of output $Q$ that a firm can produce, supposing the expected price is right, becomes constrained by cash flow,

$$P_t Q_{t-1} + K_t = iK_t + (1 - \lambda)\lambda W_t Q_{t-1} + Q_t (\lambda W_t + \beta M_t),$$

or, letting lowercase variables represent measurements in wage units ($m = M/W$) so that one has

$$Q_t = [(P_t - (1 - \lambda)\lambda)Q_{t-1} + K_t(1 - i)](\lambda M + \beta m_t).$$

A price rise in period $t$ will raise current revenue but it will also reduce the purchasing power of revenue and working capital in terms of current wages and materials. A rise in nominal interest rates, given credit, further intensifies the financing constraint. The framework immediately suggests that not running up interest arrears or postponing the payment of wages are effective ways of lessening the bite of the financing constraint. Equally apparent is the manager's call for increased credit as a means of sustaining production.

The Calvo-Coricelli model does not offer a sharp distinction between the level of credit in the economy and the distribution of that credit among forms. In segmented credit markets, that distinction is all important. With an uneven distribution, some forms might be altogether unconstrained whereas for others the lack of credit becomes the effective limit to production. The manner in which credit allocations are decided would therefore have a first-order impact on production. Likewise, it would be useful to make a distinction among firms in their credit intensity. Production with long gestation periods would be more vulnerable than industries where production and sales more nearly coincide. Building a tanker, for example, is not the same as fixing shows.

Similarly, the role of inventories deserves attention. In the short run firms can liquidate inventories to obtain cash for production. That is an important consideration because, in fixed-price, random supply, planned economies, inventories at each stage of production were high. Accordingly, the immediate credit squeeze may not have been so important because of the possibility of liquidating inventories. Of course, firms in the aggregate cannot acquire an increase in their
credit position except as a result of an economy-wide increase in credit or a reduction in households' balances. Most of the inventory liquidation therefore might result, together with arrears, in a redistribution of credit among firms and industries.

Two further points deserve attention. In the decontrol experience one would expect strong immediate effects and more dampened persistent ones. Capital markets are segregated, but there are always means to lessen credit dependence and force implicit borrowing in any number of ways, including nonpayment of credit or interest. All these channels will tend to come into play over time and hence lessen the role of tight credit.

In concluding, one would like to see the role of shocks to working capital in settings other than transformation economies. Such possibilities do exist. For example, in 1990 Peru increased oil prices thirtyfold, leading to a vast blip in the price level and a corresponding reduction in real money and credit. Output instantly dropped sharply. Other examples no doubt exist. In hyperinflation experiences of the 1920s, as reported by Bresciani-Turroni (1937), there is discussion of Kapitalaufzehrung as a result of extreme inflation. One can think of this as the reduction in the real value of working capital—a reduction not reflecting voluntary increases in the velocity of credit, but an involuntary reduction in the purchasing power of working capital. The Calvo-Coricelli hypothesis may thus have interesting implications for the interpretation of very different experiences, including the output drop in the context of extreme, unrepressed inflation.

References

China's Collective and Private Enterprises: Growth and Its Financing

Shahid Yusuf

Overview

China's experience with economic growth since the start of reforms in 1979 can be divided into two periods. During the first, which extended through 1984, growth was driven by agriculture. Thereafter, much of the impetus has come from nonstate industry, primarily located in rural areas, and, to a lesser extent, from large, state-owned enterprises. As nonstate industry now accounts for over 52 percent of industrial output and has expanded at an annual average rate of 19 percent for the past six years, it is the principal determinant of economic performance. In the first quarter of 1993, the collective and private sector was responsible for 75 percent of China's growth.

Both agriculture and rural industry owe their dynamism to the transfer of administrative and fiscal powers to subnational governments; the redefining of ownership rights to property; and the increased availability of financing through multiple channels. The focus of this paper will be on rural collective industry, especially the private and joint venture segments.

Simply put, China's nonstate economy has grown with unusual rapidity, mostly because factor inputs, chiefly the volume of invest-

---

1 The author is indebted to Shahid Javed Burki for comments and to Xiaofeng Hua for assistance with the statistics. The views expressed should not be attributed to the World Bank, its Board of Directors, its management, or any of its member countries.

2 China's nonstate industry has four principal components: collectively owned enterprises, which currently account for the largest share; cooperatives; individually (privately) owned enterprises; and others, principally enterprises in which foreign investors have a stake or those that are wholly owned by foreigners.
ment, have been extremely large. Why investment has reached such a scale and its increasingly flexible allocation across subsectors is the outcome of several intertwined factors. The Government’s success in reviving commune and brigade industry in the 1970s was the first step. It restored a tradition of small-scale rural industry suppressed since the early 1950s. As decentralization began transferring fiscal resources and policymaking powers to the counties in the early 1980s, local governments exploited the potential of rural enterprises to fill numerous industrial niches in light consumer goods, building materials, machinery, and agricultural inputs. They did this by investing directly in production enterprises and by building supporting infrastructure. In this fashion, the most fortunate, strategically located coastal provinces were able to enter a virtuous spiral. Investment in rural enterprises enriched the community, broadened the tax base, and served to generate fiscal resources for a further round of investments. Over time, as individual wealth increased, there was a “crowding in” of capital, accumulated by households, into rural industry and services.

Public investment and fiscal incentives helped initiate the virtuous spiral, but it has derived much of its force from entrepreneurial energy and individual effort released by a new perspective on institutions governing property rights. Private ownership of small businesses was legally recognized in 1981 and has spread steadily since. More important, collective and cooperative ownership has changed in character, with the local community retaining residual property rights, but de facto ownership now residing with managers and/or workers. Shared ownership gives local authorities claims on collective resources. It also means that business risks are, in part, shouldered by local governments. This has encouraged entrepreneurship in what is a fluid and uncertain business environment. It has also facilitated the mobilizing of finance for industry.

Initially, a high proportion of the capital needed by the collective sector was drawn from budgetary funds, retained earnings, or, in private enterprises, from the savings of the extended family and friends. However, the growth of the nonstate sector has powerfully stimulated financial development, with the result that banks and

3 Views differ on policies toward rural industry. Riskin (1978) discusses the gradual revival of rural industry in the sixties following closures of enterprises after the Great Leap. Communes visited by Burki (1969) in the mid-1960s had a substantial level of nonagricultural production. Development of rural industry in the mid-1970s, particularly its linkage with agricultural activities, is described in American Rural Small-Scale Industry Delegation (1977), especially in Chapters 8 and 9.
other intermediaries, formal as well as informal, have enlarged their share of funding for the nonstate sector. In this instance, government policy has been largely reactive. It has not done much building ahead of demand. Current trends suggest that financial markets could overshadow other sources of capital within a decade. Hence, the interaction between collective and private enterprises on the one hand and financial intermediaries on the other will have a strong bearing on the speed of future growth. Its stability will be decided by government macropolicy.

Whereas fiscal and financial channels, along with other resources, fund the bulk of investment, in recent years foreign direct investment—a large proportion of it in equity joint ventures—has emerged as a major source of capital, chiefly for the export-oriented manufacturing sector. Growth of the "other" component of the nonstate sector rivals that of private enterprises, and its share, already sizable in the southeastern coastal provinces, is likely to become substantial in all the open coastal areas during the 1990s.

One striking feature of the nonstate sector's development has been its speed. A second and even more arresting feature is the dispersed and spontaneous nature of the entire process. The principal contribution of the Central Government has been to allow many hundreds of flowers to bloom rather than attempting a close and direct management of transition. It has whittled away at physical, institutional, and ideological controls, thereby releasing energy bottled up for decades. The state's achievements have been twofold. First, its success in calibrating the release of energy has held the pace of change to socially acceptable limits. Second, by realizing the futility of micromanaging such a complex affair, the state has wisely provided only the broadest of guidelines, allowing those closer to the action maximum leeway in adding content and specificity to policy. This paper will have attained its goal if it not only describes what happened but also imparts a sense of the relatively spontaneous way it happened.

The paper starts with a brief description of the composition of the nonstate sector and of emerging trends in structure and financing and then examines the contribution of administrative and fiscal decentralization, both in providing policy stimulus as well as financing for collective enterprises. It analyzes institutional changes related to ownership, which have spurred entrepreneurship and facilitated financing, and reviews the factors contributing to the nature and direction of financial development, as well as the manner in which this has influenced sources of capital for the nonstate sector. It then assesses the significance of foreign direct investment for nonstate
sector growth and sketches the concerns demanding policy action by central and local authorities.

The Nonstate Sector: Composition and Trends

By the early decades of the twentieth century, China was well on its way to acquiring modern industrial capability and a supporting entrepreneurial tradition, anchored to kinship networks that are the building blocks of Chinese society. Because industry needed financial services, indigenous banks, which had long supported commercial activity, began lending for working capital and, to a lesser degree, for fixed investment. In the large coastal cities, their operations were buttressed by foreign banks that became deeply involved in trade but also made loans to the larger business houses.

Following the establishment of a communist government in 1949, traditions of private entrepreneurship and indigenous banking, along with the budding institutions of property ownership, were gradually suppressed. Ownership was concentrated in the hands of the state and of communities; a centralized, monobanking system took control of all financial transactions, and industrial entrepreneurship became a bureaucratic function carried out by planning agencies and industrial bureaus. What little rural industry existed withered as the agricultural economy was parcelled into communes that imposed administrative discipline and brought farm production within the ambit of planning.

The rising cost of tightly regulating economic activity in terms of forgone employment opportunities, distortion of incentives, and inadequate supplies of light manufactures finally prompted an easing of restraints in the early 1970s. With encouragement from the center, rural-based communes and brigade enterprises multiplied. Between 1970 and 1979, they averaged an annual growth rate of 25 percent.

Rural industrialization received fresh impetus from the gradual return to household farming, which commenced in 1979 and was largely completed in five years. The household responsibility system loosened the constraints on ownership and began changing attitudes

---

7 However, see footnote 3.
9 For a discussion of agricultural reform during this stage, see Perkins and Yusuf (1984).
Table 1. Industrial Output by Size and Ownership Categories
(Percent of total output)

<table>
<thead>
<tr>
<th></th>
<th>1978</th>
<th>1985</th>
<th>1989</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large-scale sector</td>
<td>41.5</td>
<td>42.3</td>
<td>42.2</td>
</tr>
<tr>
<td>State</td>
<td>41.5</td>
<td>41.9</td>
<td>40.5</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>0.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Urban medium/small</td>
<td>49.4</td>
<td>38.8</td>
<td>29.4</td>
</tr>
<tr>
<td>State</td>
<td>35.8</td>
<td>22.9</td>
<td>15.6</td>
</tr>
<tr>
<td>Collective</td>
<td>13.6</td>
<td>15.9</td>
<td>13.9</td>
</tr>
<tr>
<td>Rural medium/small</td>
<td>8.7</td>
<td>14.6</td>
<td>19.6</td>
</tr>
<tr>
<td>Township</td>
<td>4.8</td>
<td>7.8</td>
<td>10.0</td>
</tr>
<tr>
<td>Village</td>
<td>3.9</td>
<td>6.8</td>
<td>9.6</td>
</tr>
<tr>
<td>Very small-scale</td>
<td>0.4</td>
<td>3.4</td>
<td>7.1</td>
</tr>
<tr>
<td>Urban</td>
<td></td>
<td>0.3</td>
<td>0.6</td>
</tr>
<tr>
<td>Rural</td>
<td>0.4</td>
<td>3.1</td>
<td>6.4</td>
</tr>
<tr>
<td>Other: medium/small</td>
<td></td>
<td>0.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>


Notes:
1. Large-scale other output is estimated. 1978 is calculated from constant 1970 price output data; 1985 and 1989 are calculated from current price output.

toward private activities, as well as profit making. In a short time, it both shifted outward the agricultural production function and helped widen the scope for a whole range of nonfarm activities.

By the mid-1980s, the great agricultural spurt was almost spent, but a series of reform initiatives, by widening the role of markets, giving enterprises more autonomy, and strongly encouraging collective industry, had dramatically changed the tempo of industrial activity. This acceleration, which shows no evidence of slackening in the 1990s, has altered the industrial structure significantly. Most notably, rural industry has emerged as a major player and the relative shares of state and nonstate industry have shifted toward the latter.

In the late 1970s, three-fourths of industrial production was concentrated in urban, state-owned enterprises, with large enterprises claiming a little over half of this production.

Urban collectives accounted for another 14 percent, and the balance—9 percent—was produced by rural units (see Table 1). By the mid-1980s, the proportions had begun to shift, but the rural share was still under 18 percent.

\[10\] The importance of the household responsibility system to the growth of agriculture during 1978-84 is quantified by Lin (1992).

\[11\] Naughton (1992).
cent. Since then, the distribution of output has changed quite radically. Urban state enterprises in the medium and small categories have lost ground and are now responsible for an estimated 11 percent of industrial output (1992), as against 36 percent in 1978. Large, well-financed state enterprises have gained from economies of scale and the demand for industrial raw materials and capital goods. Their share has remained relatively stable over 15 years and in 1992 was a little under 37 percent.

The large gains have been registered by collectives, individual (or private) enterprises, and firms in the "other" (mostly joint ventures or foreign owned) category. The majority of these are located in rural townships and villages that have gained not just from decentralization (discussed below), but also from the lower cost of labor, negligible social overheads, and flexibility in hiring practices. Collective industry grew annually by 20 percent from 1985 to 1991, and enlarged its share by a few points (see Table 2). But individual and "other" sectors expanded by 36 percent and 48 percent, respectively, albeit from small bases. Growth in each of these categories increased yet further in 1991-92, as administrative checks, introduced in 1989-90, were dismantled. For instance, collectives averaged a 25 percent rate and "other" enterprises, 55 percent. A rough calculation would put the share of private and other enterprises at about 8 percent each in 1992, or between 15 and 17 percent of industrial output. The actual share of private enterprises might be considerably larger because private firms are at a disadvantage in dealing with officialdom. They are often subjected to additional levies and have every incentive to wear

\begin{table}
\centering
\begin{tabular}{|l|c|}
\hline
Category & Share of Industrial Output (1992) \\
\hline
Urban state enterprises & 11% \\
Collectives & 37% \\
Individual enterprises & 5% \\
Other enterprises & 15% \\
\hline
\end{tabular}
\end{table}

\footnotesize{12}Field (1992, p. 589) observes that decentralization and the granting of greater autonomy to enterprises were intended to stimulate state enterprises. But collectives were the ones that derived the larger benefits. Their output rose five times between 1980 and 1990. That of township and village enterprises (TVEs) rose tenfold. Wu (1992) examines the surge in growth during 1985-90 and the large contribution by rural industry. See also Prime (1992, p. 31) and Findlay and others (1992).

\footnotesize{13}State and large collective enterprises have a work force nearly three-fourths of which still enjoys lifetime tenure and is lavishly provided with allowances and benefits. This so-called iron rice bowl greatly increases overheads.

\footnotesize{14}Ody (1992) describes the use of credit controls to slow growth in 1989-90. These measures were slanted initially toward TVEs and rapidly contained the level of activity. They also increased the rate of exit from the subsector. The experience of 1989-90 suggests that on the margin, credit restraint exercised through formal channels was able to influence TVE activity strongly in the late 1980s. How effective it would be in the mid-1990s, if the number of financial intermediaries increases, is less certain, although the dependence on credit is likely to continue increasing. See also Tam (1991, p. 521).
### Table 2. Sources of Output (GVIO) Growth in Industry

<table>
<thead>
<tr>
<th></th>
<th>1985</th>
<th>1987</th>
<th>1989</th>
<th>1991</th>
<th>Average 1985-91</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industry total</strong></td>
<td>1,045,679</td>
<td>1,381,299</td>
<td>1,889,251</td>
<td>2,274,012</td>
<td>1,630,549</td>
</tr>
<tr>
<td>State-owned enterprises</td>
<td>678,229</td>
<td>825,009</td>
<td>1,059,126</td>
<td>1,203,869</td>
<td>932,100</td>
</tr>
<tr>
<td>Collective</td>
<td>336,470</td>
<td>478,174</td>
<td>674,287</td>
<td>811,839</td>
<td>67,1804</td>
</tr>
<tr>
<td>Township</td>
<td>81,350</td>
<td>128,419</td>
<td>188,250</td>
<td>241,610</td>
<td>159,235</td>
</tr>
<tr>
<td>Village</td>
<td>71,321</td>
<td>116,535</td>
<td>181,715</td>
<td>236,198</td>
<td>149,800</td>
</tr>
<tr>
<td>Individual</td>
<td>19,345</td>
<td>50,239</td>
<td>90,756</td>
<td>129,535</td>
<td>71,738</td>
</tr>
<tr>
<td>Urban</td>
<td>3,593</td>
<td>5,027</td>
<td>7,697</td>
<td>10,407</td>
<td>6,426</td>
</tr>
<tr>
<td>Rural</td>
<td>15,751</td>
<td>45,212</td>
<td>83,059</td>
<td>119,128</td>
<td>65,312</td>
</tr>
<tr>
<td>Other</td>
<td>12,636</td>
<td>27,877</td>
<td>65,081</td>
<td>128,769</td>
<td>54,907</td>
</tr>
</tbody>
</table>

|                | Million  |          |          |          |                |
| **Industry total** | 100.0    | 100.0    | 100.0    | 100.0    | 100.0          |
| State-owned enterprises | 64.9     | 59.7     | 56.1     | 52.9     | 58.2           |
| Collective          | 32.1     | 34.6     | 35.7     | 35.7     | 34.8           |
| Township            | 7.8      | 9.3      | 10.0     | 10.6     | 9.5            |
| Village             | 6.8      | 8.4      | 9.6      | 10.4     | 8.9            |
| Individual          | 1.8      | 3.6      | 4.8      | 5.7      | 4.1            |
| Urban               | 0.3      | 0.4      | 0.4      | 0.5      | 0.4            |
| Rural               | 1.5      | 3.3      | 4.4      | 5.2      | 3.7            |
| Other               | 1.2      | 2.0      | 3.4      | 5.7      | 3.0            |

<table>
<thead>
<tr>
<th></th>
<th>Percentage Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industry total</strong></td>
<td>21.8</td>
</tr>
<tr>
<td>State-owned enterprises</td>
<td>16.5</td>
</tr>
<tr>
<td>Collective</td>
<td>34.9</td>
</tr>
<tr>
<td>Township</td>
<td>34.9</td>
</tr>
<tr>
<td>Village</td>
<td>34.9</td>
</tr>
<tr>
<td>Individual</td>
<td>-0.8</td>
</tr>
<tr>
<td>Urban</td>
<td>-0.8</td>
</tr>
<tr>
<td>Rural</td>
<td>-0.8</td>
</tr>
<tr>
<td>Other</td>
<td>52.2</td>
</tr>
</tbody>
</table>

Source: China Statistical Yearbook, various issues.

the badge of collective ownership.\(^{15}\) Over the past two years, however, such discrimination has begun easing because of the widening acceptance of market principles and a fuller realization of the demonstration effects on local entrepreneurs and potential foreign investors.

Recent trends, if allowed to persist, point toward an industrial system with three leading sectors: large state enterprises, private firms, and joint ventures or wholly owned foreign companies. For the next several years, smaller state-owned enterprises and collectives will still account for a substantial proportion of industrial output. But ongoing enterprise reforms will rapidly diminish the numbers of small state enterprises through mergers, bankruptcy, and a change in ownership status. As the legal standing of private firms acquires greater acceptance with time and the judicial validation of newly bestowed rights, many of the smaller collectives—urban and rural—will emerge as private firms leaving a residual of medium and large collectives. Barring any sudden reversal in the political mood of the country, in five years the share of industrial output claimed by collectives may have shrunk to less than half of what it is now—or about 15 percent.

There is another reason for believing that state and collective ownership will have a much lower profile. China’s services sector is still relatively small—27 percent of GDP in 1992. From all indications, it should sustain double-digit rates of growth well into the next decade. Probably a majority of new entrants will be private firms, and many of the existing collectives will switch to different forms of ownership, nearer the private end of the spectrum.

The sectoral shares of GDP in 1992 were as follows: industry, 53 percent, services, 27 percent, and agriculture, 20 percent. Farming has already been almost completely privatized. About 40 percent of industrial production will very likely have been annexed by private and "other" firms within seven years. Furthermore, perhaps as much as two-thirds of services will be in private or joint ventures.

---

16 In the first two months of 1993, three-fourths of China’s economic growth—which was running at an annualized rate of 14 percent—was provided by collective and private enterprises. These were expanding at the annualized rate of 47 percent and 77 percent, respectively (Zhongguo Xinwen She News Agency, Beijing, March 9, 1993).


18 Private enterprises are most numerous in Guangdong (30,000), followed by Zhejiang, Liaoning, and Shandong (China Daily, February 23, 1993). Field (1992, p. 599) notes that official projections also assume a more rapid growth of individual and cooperative enterprises than of collectives above the township level.

19 In Beijing, for instance, nearly 200,000 individuals are engaged in small-scale retail activities, which require relatively little capital to start up (China Daily, April 18, 1993). In the first quarter of 1993, there was a net addition of 2,300 "street businesses." This is merely the ground level of the services sector. There is increased activity at higher levels and a great deal to come (Drucker, 1993).

20 The share of state farms was 3 percent of agricultural output in 1991 (China Statistical Yearbook, 1992).
Such an accounting suggests that the division between state and private ownership around the turn of the century will be much like Western Europe today. The state might be controlling between 40-50 percent of GNP, and the balance would be held by private owners. Thus, in roughly 21 years, China would have made a largely painless transition from high socialism to a prosperous, mixed economy—not dissimilar, at least in terms of basic ratios, to that of most countries of the Organization for Economic Cooperation and Development.

The far-reaching change in the composition of industry that has occurred, and the trends now apparent, are the outcome principally of decentralization, a gradual recalibration of property rights, and the effective deployment of fiscal and financial resources. How each of these has contributed is discussed below.

Decentralization

Administrative and Financial Aspects

So long as the parameters of economic decision making were determined by planners in Beijing and resource allocation was subject to central control, room for local initiative was limited and lower-level government had little incentive to mobilize additional resources, explore profitable investment opportunities, control costs, or raise productivity. A large proportion of investment funds were channeled through the budget, and the entire process of capital spending was rigidly circumscribed by the planning system. In 1978, budgetary revenues amounted to 31 percent of GNP, and about 40 percent of these (13 percent of GNP) were allocated for capital construction, either directly by the Central Government, or according to guidelines defined by the center (see Table 3).

The single most important aspect of China's reforms was the recognition that such a large economy could not be effectively managed or even reformed from Beijing. Hence, the successive rounds of fiscal and administrative decentralization, starting in the late 1970s, were of critical significance.21 In the first place, they have permitted local governments to retain a larger proportion of tax revenue, and, since 1982, have given them the latitude to raise, for their own purposes,

21 The significance of local community resources and especially fiscal resources in the early 1980s is described in World Bank (1982). On fiscal decentralization and the extra-budgetary funding, see Donnithorne (1989) and World Bank (1993). Also see Yusuf (1993b).
extrabudgetary funds from a variety of fees, surcharges, and special contributions.22 These funds rose from negligible levels to over 10 percent in the early 1980s and have remained there since. Second, state and collective enterprises have been allowed to retain a much higher proportion of their earnings, a decision that directly augments local extrabudgetary resources. Third, defense spending was substantially reduced, and many expenditures, such as those for subsidies, infrastructure, and industrial restructuring, were transferred to the provinces. Fourth, along with the reassignment of fiscal responsibilities, the center has allowed subnational governments scope for sanctioning investments up to ¥200 million, for routine

---

22 Extrabudgetary revenues encompass surcharges on taxes set by local governments; fees imposed by administrative departments; and retained profits and depreciation allowances of state-owned enterprises and collective enterprises.
policymaking, and, within limits, for experimenting in various areas of reform. Last, Beijing has been especially generous with the coastal provinces, both in the tailoring of fiscal contracts (especially with Guangdong and Fujian), but also in allowing them discretion to use tax incentives, credit policy, and infrastructure building to stimulate local industry and attract foreign direct investment.

The extent of decentralization can be discerned from a few key indicators. Between 1978 and 1991, the revenue/GNP ratio declined to 17 percent, even though China’s real GNP increased by about 9 percent per annum. With the Central Government collecting 42 percent of revenues and controlling 45 percent of expenditures, in fiscal terms, it is now a smaller player. During this period, extrabudgetary funds, in the provincial domain, reached 10 percent of GNP—almost the same level as provincial tax revenues. A third of these are fiscal extrabudgetary resources at the disposal of subnational governments, and supplementing them are off-budgetary funds obtained through informal channels.

Another, somewhat indirect, indicator is the financing of investment. Investment, as a ratio of GNP, was 32.2 percent in 1980. By 1992, it had risen to almost 39 percent (with fixed capital accounting for about 30 percent) of GNP, but the budgetary financing of capital construction was down to less than 4 percent of GNP from 13 percent in 1978, with the center responsible for three-fourths of this.

From the fiscal perspective, the shift in power is unmistakable. Decentralization, although greatly diminishing the flow of resources through formal budgetary channels, has nonetheless expanded the de facto fiscal envelope controlled by local authorities, significantly augmenting their ability to spend on local projects. This has stimulated resource mobilization, mainly through extrabudgetary and financial channels (see below). In addition, local governments now have more incentive to invest heavily in productive assets and infrastructure to promote development, which also enlarges the revenue base. In other words, decentralization in the 1980s imparted a cor-

23 Until recently, Guangdong’s fiscal contract required the province to transfer to the center a fixed amount of revenues. Any excess was retained by the province.

24 Decentralization also enabled local officials to increase control over financial channels and use these to support pet ventures (Vogel, 1989, p. 115).

25 By virtue of their extensive administrative powers, local governments are able to prevail upon enterprises to contribute to community expenses or build projects that benefit the larger community as well.

26 Watson (1992) talks about the heavy investment by local governments (Shandong province) in fixed capital, following the introduction of tax contracting. He views it as each county creating its own “palace economy.” Vogel (1989) also notes the pressure by local officials on banks to lend to businesses.
poratist orientation to local governments in China and gave officials command over resources with which to pursue developmental objectives. The better-organized and managed units quickly grasped the opportunity to use resources, traditions, and locational advantages to the fullest.27

The most notable feature of this entire effort is that it has been motivated and directed almost exclusively by the public sector and has drawn a substantial share of the finances from public sources. In true corporatist mode, local government entrepreneurship has been responsible for galvanizing communities and inducing individuals to take up business opportunities. Thus, private entrepreneurs have taken their cues from the public sector and the example set by local officials.28 Many of the economic success stories about communities along the coastal belt are linked to initiatives taken by one or a handful of well-connected, public officials. Through tireless effort and full use of their administrative and party connections, these individuals were able to extract the maximum benefits from the reforms.

Public entrepreneurship has been doubly effective from being amply supplied with capital. Although in the early 1980s a significant volume of funding for investment was obtained from the budget, this declined rapidly, and, in addition to bank credit, much of the financing for capital construction came from the retained earnings of enterprises and extrabudgetary funds accumulated by various levels of government. Because the former accrue mostly to the state and collective enterprises, their disposition, if not controlled by government agencies, will be strongly influenced by government directives. Thus, direct public spending on capital construction, along with investment indirectly induced through state and collective enterprises, has been one of the principal sources of growth. It has created production capacity, and it has developed infrastructure. In the process, it has stimulated capital accumulation by private and cooperative enterprises. Such investment has also served as an inducement for capital from overseas.29

Although it is difficult to establish empirically, decentralization provided local governments with control over fiscal and other resources, as well as the administrative authority to conduct development activ-

---

27Rural enterprises are most prominent in the coastal areas, home to a third of the populace. In western and central China, the per capita output of rural enterprises is less than a fourth (China Trade Report, 1993).

28The encouragement provided by village leaders to local enterprises is described by Putterman (1989). Typically, many of the new entrepreneurs are well-connected former cadres.

29Thoburn and others (1990).
ities at the community level. In many instances, the local leadership responded to the challenge with entrepreneurial zeal and innovative policies. They also invested heavily in manufacturing and in social overhead capital. The demonstration effect was profoundly influential. It helped stimulate household savings and, from the late 1980s, a surge in private and quasi-private sector development.

**Fuzzy Property Rights**

Although growth during the 1980s was motivated by local and central governments, its dynamism, and the degree to which it has harnessed the energies of enterprises of all kinds, need further explanation. One possibility is that the Chinese approached the use of property rights in a way that optimally balanced risks and rewards. In a market economy where property rights are clearly delineated, there is little ambiguity regarding ownership, the assignment of risks, and the distribution of gains and losses. Within an orderly, well-developed market environment, clarity concerning the rights of private owners sharpens individual incentives. Even though risk can on occasion deter action and interfere with the raising of capital, sophisticated market systems generally evolve insurance techniques for containing these problems.

When markets are undeveloped and there is considerable uncertainty on the direction of government policy, risk can become a difficult hurdle. Among other things, it discourages long-term investment and can increase the cost of financing. China entered the 1980s with two major handicaps: there was great uncertainty about the future course of reforms; and individual property rights—the basis of a market economy—were undefined. Fortunately, both of these problems were handled adroitly. First, decentralization increased the flexibility and responsiveness of the economy. It also started an informal process of assigning and redistributing property rights more widely with local governments supplying the initiative. Second, since the vast majority of enterprises were publicly owned, the approach taken was a gradual increase of enterprise autonomy within a loose framework of collective (or state) ownership that is still lacking a formal company law. This allowed much room for variation. What it achieved, during

---

30 Yusuf (1993b).

31 The uncertain nature of property rights relating to enterprises is noted by Watson (1992, p. 184). The significance of the underlying web of social and kinship linkages in the running of enterprises and the allocation of their earnings is also discussed (pp. 184-86), as is the provision of credit to enterprises at the instigation of the county.
the most difficult stage of transition, was a balancing of three intertwined concerns: supervisory agencies sought to retain control over enterprises to ensure that they adhered to official goals and would service the revenue requirements of local governments. Enterprises sought maximum decision-making autonomy so that they could pursue opportunities as they arose and capture much of the benefits for employees. Both parties sought a viable sharing of risks, and this implicitly served to demarcate ownership rights. The community, represented by local authorities, was protective of its ownership rights over enterprises, but realized that by shouldering all the risks it would in effect be underwriting inefficiency. Managers and workers have little incentive to work hard, or be competitive, if they are sheltered from losses. The enterprise had to weigh the advantages of independence against the risks of operating in a highly fluid environment, in which market information was scarce, financial channels underdeveloped, and where the state would remain the key player for the foreseeable future.

Emerging from all this is a system of fuzzy rights, which leaves the margins between collective, cooperative, and private ownership quite vague. This has brought into being a sharing of risks between enterprises and local government, at least for the broad mass of nonstate enterprises in the rural areas, and has had a profound effect on financing. By retaining vestiges of collective ownership, an enterprise gains some protection from risk of failure, more easily obtains resources from banks, and possibly derives other favors in the form of budgetary grants, subsidized inputs, or sales to government bodies. Such an arrangement has also increased the readiness of households to invest. The price of such sharing is the claim that local authorities can exercise on enterprise income and assets. Because a private entity could not easily ward off official requests, seeking collective status was not just good economics, it also acknowledged sociopolitical reality.

Although much has been made of the importance of private property rights for creating an efficient market economy, China has clearly not suffered by limiting the domain of private property and cultivating a wider, informal system of partial ownership in the rural sector. An individual's ownership of a collective enterprise is in many instances totally accepted within a county, although the enterprise technically remains a property of the community. In those instances where rural enterprises have distributed shares, mostly among owners and the workforce, it is broadly accepted that local governments have a claim on enterprise revenues. Coinsurance by the Government has not exacerbated moral hazard problems because town-
ship social networks that link government and business impose joint liability and facilitate both agreement of performance criteria and their enforcement.

As markets mature, and the need for risk sharing diminishes, more collectives will cross the line into private ownership. But for many years ahead, fuzzy property rights are likely to remain a feature of the economy, reflecting an ideological predisposition, a stage of fiscal development, the poorly articulated state of markets, and a contingent response to the difficulties of raising capital in uncertain conditions and with weak financial markets.

Financing Nonstate Industry

As indicated above, a substantial part of investment funding comes either from retained earnings of enterprises or is provided through a variety of fiscal channels. Although appropriate for a centrally planned economy in which banks had a peripheral role, it is bound to change radically as markets develop, the nonstate sector grows, and the continuing growth of savings results in a deepening of the financial system. Until fairly recently, financial development tended to lag behind industrial change, but it seems now that the spontaneous appearance of new financial institutions may be powerfully reinforcing the forces of expansion, particularly in the nonstate sector.32

After a slow start in the mid-1980s, the refinement of the financial system has picked up speed. In addition to the four specialized banks and the two national comprehensive banks, there is now a vast network of rural and urban cooperatives, as well as several hundred nonbank financial intermediaries—trust and investment companies (TICs), finance companies, leasing companies, and security corporations.33 Since 1990, these have been joined by stock exchanges in Shanghai and Shenzhen, and stock markets flourish in scores of cities.34 Low inflation throughout the 1980s and moderate interest

---

32 Since the mid-1980s, rural industry has taken the lead in introducing new instruments such as bonds and shares (Tam, 1991).
33 Bowles and White (1989). The importance of commercial banks, saving companies, postal savings, and various cooperatives to the development of Taiwan Province of China’s rural sector is discussed in Adams, Chen, and Camberte (1993). The contribution of private and government finance institutions to postwar, small-scale industry growth in Japan is described by Friedman (1988, pp. 166–68).
34 Fairdamb (1993).
rates, which on average have provided savers with zero or positive real returns, have continually stimulated resource mobilization. 35

However, unlike Japan or Taiwan Province of China, the Government has not made a deliberate effort to create a financial infrastructure that serves the needs of rural industry. 36 Instead, the incentives released by industrialization have induced existing institutions to expand and reorient their activities. They have also drawn new intermediaries into the fray. The institutions of immediate relevance are, first and foremost, the Agricultural Bank of China (ABC), whose branches extend down to the township level. Affiliated to the ABC and operating at the township level and below are more than 60,000 rural credit cooperatives (RCCs) and 3,500 urban credit cooperatives (UCCs). The former are collectively owned by farmers and are the main providers of credit to farmers and to the rural industry. From small beginnings in Zhejiang, 37 Jiangsu, and Fujian, locally owned informal banks have appeared, restoring a tradition that had flourished earlier in the century. Increasing, but still relatively small, amounts of credit are flowing to the nonstate sector by way of TICs and finance companies set up by the specialized banks to tap more lucrative markets in which they often cannot lend directly. 38

Finally, after years of an unswerving commitment to vertical integration, many of the large state enterprises in the coastal cities, for example, Shanghai and Hangzhou, are subcontracting on a growing scale for reasons of flexibility and lower cost. This trend, which is sure to gather momentum as experience accumulates on both sides, is beneficial to rural enterprises in at least four ways: it enlarges their markets; the large state-owned enterprises provide secondhand equipment; they are a source of technology and skills; and, because they enjoy much easier access to credit from the specialized banks, they can provide subcontractors with some amount of working capital.

35 If 1988, the year of an inflationary spike, is excluded, the average one-year deposit rate between 1979 and 1991 was 8.3 percent, whereas the average retail price inflation was 4.7 percent. The figure for deposit rates is biased somewhat by the high deposit rates introduced in 1989.


37 See Blecher (1991). The emergence of informal monetary transactions among households and the growth of nongovernmental finance associations as well as credit unions have been noted by many observers.

38 See Xiao and Xiu (1993).
Although distressingly sparse, the data—especially with respect to working capital—are examined below in more detail, to define the part played by finance in the growth of collective and private enterprises.

**Rural Banking Institutions**

Rural household savings were insignificant in the late 1970s but have since risen very strongly in line with overall growth in household accumulation, which reached 19 percent of GNP in 1991; see Tables 4 and 5. Much of these savings take the form of deposits in the ABC and the credit cooperatives. Enterprise deposits have also increased sharply. Between 1979 and 1991, ABC’s total deposits rose twelvefold. Whereas enterprise deposits have the bigger share—58 percent—they have also climbed the fastest—by an incredible 75 times. The experience of the rural credit cooperatives is similar. Total deposits have grown tenfold, with savings deposits accounting for the largest share—85 percent—and for the biggest increase, 24-fold.

During the first half of the 1980s, the expansion of the deposit base was not matched by lending to rural industry.\(^{39}\) In fact, the evidence

<table>
<thead>
<tr>
<th>Table 4. Savings (Percent of GNP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
</tr>
<tr>
<td>Gross national savings(^1)</td>
</tr>
<tr>
<td>State budget (current account surplus)</td>
</tr>
<tr>
<td>Enterprises and other(^2)</td>
</tr>
<tr>
<td>Households(^3)</td>
</tr>
<tr>
<td>Of which: Financial savings</td>
</tr>
</tbody>
</table>

Source: People’s Bank of China.

1 Estimated as gross domestic investment plus the balance on external account.
2 Calculated as a residual; mainly state-owned and collectively owned enterprises and extrabudgetary operations of local government.
3 Does not take into account borrowing by households, which is negligible, and purchases of securities issued by nongovernment entities.

\(^{39}\)Feder and others (1989) note that deposits of rural households were larger than loans in their sampled counties. Thus, credit shortages might be more perceived than real.
Table 5. Household Bank Savings Deposits

<table>
<thead>
<tr>
<th>Year</th>
<th>Total household deposits</th>
<th>Urban household deposits</th>
<th>Increase over previous year (percent)</th>
<th>Rural household deposits</th>
<th>Increase over previous year (percent)</th>
<th>Total household deposits/ GNP (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Billion yuan)</td>
<td>(Billion yuan)</td>
<td></td>
<td>(Billion yuan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1978</td>
<td>21.06</td>
<td>15.49</td>
<td>30.79</td>
<td>5.57</td>
<td>40.75</td>
<td>5.87</td>
</tr>
<tr>
<td>1979</td>
<td>28.10</td>
<td>20.26</td>
<td>39.44</td>
<td>7.84</td>
<td>49.23</td>
<td>7.05</td>
</tr>
<tr>
<td>1980</td>
<td>39.95</td>
<td>28.25</td>
<td>36.21</td>
<td>11.70</td>
<td>28.92</td>
<td>8.94</td>
</tr>
<tr>
<td>1985</td>
<td>162.26</td>
<td>105.78</td>
<td>28.61</td>
<td>56.48</td>
<td>12.58</td>
<td>18.96</td>
</tr>
<tr>
<td>1988</td>
<td>380.15</td>
<td>265.92</td>
<td>30.78</td>
<td>114.23</td>
<td>25.94</td>
<td>27.12</td>
</tr>
<tr>
<td>1991</td>
<td>911.03</td>
<td>679.09</td>
<td></td>
<td>231.94</td>
<td></td>
<td>45.88</td>
</tr>
</tbody>
</table>


1 Deposits held by households in the state banking system.
2 Deposits held by households in rural credit cooperatives only.

from financial and other sources points to a transfer of resources from the rural to the urban sector.\(^4\)\(^0\) Since then, the tempo of lending by the ABC and RCCs for rural industry has quickened, although it may not yet have fully utilized the lending potential of these institutions and has made minimal inroads into the lending of other banks and on financial entities.

Table 6 shows that the loan/deposit ratio for the RCCs in 1991, while it has risen threefold since 1989, was 67 percent, with approximately 56 percent of loans being to township and village enterprises. An examination of total bank lending in 1989 shows that the nonstate sector, including agriculture, absorbed about 20 percent of all bank lending, and a third of this was to rural industry (Table 7). Thus, at a time when rural industry was producing close to a fourth of industrial output, it was absorbing 8 percent of bank lending for fixed investment as well as working capital.

\(^4\)\(^0\)Sheng (1991) has computed intersectoral transfers through price and nonprice mechanisms for 1952–88. For the period up to 1986, there was a net outflow from agriculture, primarily because of price policy. Thereafter, the outflow tapered off and might even have been reversed.
### Table 6. Rural Credit Cooperative Activities
(Billion yuan)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total deposits</td>
<td>21.59</td>
<td>27.23</td>
<td>72.49</td>
<td>139.98</td>
<td>214.49</td>
<td>270.93</td>
</tr>
<tr>
<td>Loans to households</td>
<td>1.09</td>
<td>1.60</td>
<td>19.42</td>
<td>37.24</td>
<td>51.32</td>
<td>63.14</td>
</tr>
<tr>
<td>Loans to TVEs</td>
<td>1.42</td>
<td>3.11</td>
<td>16.44</td>
<td>45.61</td>
<td>76.07</td>
<td>100.73</td>
</tr>
<tr>
<td>Loans to collective agriculture</td>
<td>2.24</td>
<td>3.45</td>
<td>4.14</td>
<td>8.01</td>
<td>13.41</td>
<td>16.99</td>
</tr>
<tr>
<td>Total loans/total deposits (percent)</td>
<td>22.0</td>
<td>30.0</td>
<td>55.2</td>
<td>64.9</td>
<td>65.9</td>
<td>66.8</td>
</tr>
</tbody>
</table>


### Table 7. Bank Lending to Nonstate Sector as Proportion of Total Outstanding Bank Loans
(Percent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban collectives</td>
<td>4.95</td>
<td>5.11</td>
<td>5.47</td>
<td>5.58</td>
<td>5.15</td>
</tr>
<tr>
<td>Urban individuals</td>
<td>0.17</td>
<td>0.13</td>
<td>0.16</td>
<td>0.17</td>
<td>0.11</td>
</tr>
<tr>
<td>TVEs</td>
<td>5.63</td>
<td>6.82</td>
<td>7.25</td>
<td>7.59</td>
<td>7.39</td>
</tr>
<tr>
<td>Agriculture</td>
<td>6.85</td>
<td>6.88</td>
<td>7.28</td>
<td>7.19</td>
<td>7.12</td>
</tr>
<tr>
<td>Total nonstate loans</td>
<td>17.60</td>
<td>18.94</td>
<td>20.16</td>
<td>20.53</td>
<td>19.97</td>
</tr>
</tbody>
</table>

Sources: Almanac of China’s Finance and Banking, 1990; Qian Yingyi (1993).

A glance at Tables 8, 9, and 10 on fixed investment and its financing can help sharpen the picture somewhat. Two things are striking. The first is the relatively small share of investment by collective and other enterprises relative to state firms. The ratio is less than 30 percent, even though the shares in production were fairly close. Second, at the aggregate level, domestic and foreign loans were a minor part relative to self-raised funds and others. Although the volume of domestic loans rose by 80 percent between 1987 and 1991, the ratios have changed little. However, rural township and village enterprises are more dependent on bank loans than state or the larger collective enterprises (Tables 10 and 11), though the average is a third of total financing. This brings us back to extrabudgetary resources and the importance of other informal channels for raising funds. The nonstate sector and, in particular, rural industry obtains a small proportion of total loans, which are still funneled disproportionately to the state sector. And to a degree perhaps not fully appreciated, well over half of all fixed investment is still being financed by other means.
### Table 8. Investment by Sector and Source of Financing (Billion yuan)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross domestic investment</td>
<td>448.7</td>
<td>557.4</td>
<td>618.3</td>
<td>641.4</td>
<td>730.8</td>
<td>...</td>
</tr>
<tr>
<td>Fixed investment&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By ownership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State units</td>
<td>229.8</td>
<td>276.3</td>
<td>253.6</td>
<td>273.3</td>
<td>338.2</td>
<td>510.6</td>
</tr>
<tr>
<td>Collective units</td>
<td>56.7</td>
<td>71.2</td>
<td>57.0</td>
<td>62.9</td>
<td>62.0</td>
<td>123.3</td>
</tr>
<tr>
<td>Construction by</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>households</td>
<td>79.6</td>
<td>102.2</td>
<td>103.2</td>
<td>103.5</td>
<td>109.2</td>
<td>124.3</td>
</tr>
<tr>
<td>Other&lt;sup&gt;2&lt;/sup&gt;</td>
<td>24.6</td>
<td>20.2</td>
<td>28.3</td>
<td>34.5</td>
<td>37.0</td>
<td>...</td>
</tr>
<tr>
<td>By source of finance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State budget&lt;sup&gt;3&lt;/sup&gt;</td>
<td>47.1</td>
<td>40.9</td>
<td>33.7</td>
<td>38.2</td>
<td>36.5</td>
<td>...</td>
</tr>
<tr>
<td>Domestic loans</td>
<td>56.1</td>
<td>65.4</td>
<td>52.6</td>
<td>64.9</td>
<td>93.8</td>
<td>...</td>
</tr>
<tr>
<td>Foreign loans</td>
<td>15.7</td>
<td>23.9</td>
<td>24.8</td>
<td>20.4</td>
<td>27.0</td>
<td>...</td>
</tr>
<tr>
<td>Self-raised funds and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other</td>
<td>271.8</td>
<td>339.7</td>
<td>331.0</td>
<td>340.7</td>
<td>389.7</td>
<td>...</td>
</tr>
<tr>
<td>Stockbuilding and work</td>
<td>58.0</td>
<td>87.5</td>
<td>176.2</td>
<td>177.2</td>
<td>183.5</td>
<td>...</td>
</tr>
<tr>
<td>in progress&lt;sup&gt;4&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: State Statistical Bureau.

1. Investment in plant and equipment plus equipment renewal and technical transformation.
2. Not separately identified by ownership (investment by enterprises not covered by the plan).
3. These data are not comparable with the budgetary data for investment because of differences in recording method and coverage.
4. Includes stock of materials, goods in process of production, and finished goods.

### Table 9. Total Fixed Investment by Source (Billion yuan)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget</td>
<td>40.78</td>
<td>47.55</td>
<td>41.00</td>
<td>34.16</td>
<td>38.77</td>
<td>37.30</td>
</tr>
<tr>
<td>Loans</td>
<td>54.03</td>
<td>83.59</td>
<td>92.67</td>
<td>71.64</td>
<td>87.09</td>
<td>129.22</td>
</tr>
<tr>
<td>External capital</td>
<td>9.45</td>
<td>17.54</td>
<td>25.90</td>
<td>27.42</td>
<td>27.83</td>
<td>31.63</td>
</tr>
<tr>
<td>Self-financing</td>
<td>183.36</td>
<td>174.52</td>
<td>290.09</td>
<td>235.55</td>
<td>232.95</td>
<td>287.86</td>
</tr>
<tr>
<td>Other</td>
<td>...</td>
<td>40.88</td>
<td>...</td>
<td>45.01</td>
<td>58.30</td>
<td>64.88</td>
</tr>
<tr>
<td>Total</td>
<td>254.32</td>
<td>364.09</td>
<td>449.65</td>
<td>413.77</td>
<td>444.93</td>
<td>550.01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget</td>
<td>16.03</td>
<td>13.06</td>
<td>9.42</td>
<td>8.25</td>
<td>8.71</td>
<td>6.78</td>
</tr>
<tr>
<td>Loans</td>
<td>20.06</td>
<td>22.96</td>
<td>20.61</td>
<td>17.34</td>
<td>19.57</td>
<td>23.49</td>
</tr>
<tr>
<td>External capital</td>
<td>3.63</td>
<td>4.82</td>
<td>5.76</td>
<td>6.63</td>
<td>6.25</td>
<td>5.75</td>
</tr>
<tr>
<td>Self-financing</td>
<td>60.30</td>
<td>47.93</td>
<td>64.51</td>
<td>56.93</td>
<td>52.36</td>
<td>52.34</td>
</tr>
<tr>
<td>Other</td>
<td>11.23</td>
<td>...</td>
<td>10.88</td>
<td>13.40</td>
<td>11.80</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
<td>100.03</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 10. Rural Fixed Investment by Source, 1990

<table>
<thead>
<tr>
<th>Source</th>
<th>Estimated Total</th>
<th>Government Sources(^1)</th>
<th>Bank Loans</th>
<th>Other Borrowing(^2)</th>
<th>Own Funds(^3)</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>100.00</td>
<td>8.60</td>
<td>30.39</td>
<td>26.63</td>
<td>26.63</td>
<td>6.82</td>
</tr>
<tr>
<td>Beijing</td>
<td>100.00</td>
<td>14.30</td>
<td>38.07</td>
<td>5.78</td>
<td>27.59</td>
<td>3.32</td>
</tr>
<tr>
<td>Tianjin</td>
<td>100.00</td>
<td>13.02</td>
<td>36.70</td>
<td>11.23</td>
<td>24.19</td>
<td>6.75</td>
</tr>
<tr>
<td>Liaoning</td>
<td>100.00</td>
<td>11.53</td>
<td>35.72</td>
<td>8.87</td>
<td>23.64</td>
<td>5.53</td>
</tr>
<tr>
<td>Shanghai</td>
<td>100.00</td>
<td>17.97</td>
<td>35.31</td>
<td>8.16</td>
<td>18.61</td>
<td>7.95</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>100.00</td>
<td>5.64</td>
<td>27.73</td>
<td>9.09</td>
<td>35.51</td>
<td>9.98</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>100.00</td>
<td>7.57</td>
<td>29.26</td>
<td>7.10</td>
<td>37.09</td>
<td>8.89</td>
</tr>
<tr>
<td>Fujian</td>
<td>100.00</td>
<td>11.20</td>
<td>21.06</td>
<td>56.85</td>
<td>25.14</td>
<td>3.97</td>
</tr>
<tr>
<td>Shandong</td>
<td>100.00</td>
<td>6.04</td>
<td>34.61</td>
<td>8.77</td>
<td>32.14</td>
<td>8.83</td>
</tr>
<tr>
<td>Guangdong</td>
<td>100.00</td>
<td>7.59</td>
<td>34.47</td>
<td>30.54</td>
<td>25.77</td>
<td>6.24</td>
</tr>
<tr>
<td>Hebei</td>
<td>100.00</td>
<td>3.74</td>
<td>43.01</td>
<td>11.02</td>
<td>16.27</td>
<td>3.54</td>
</tr>
<tr>
<td>Anhui</td>
<td>100.00</td>
<td>15.29</td>
<td>25.60</td>
<td>5.67</td>
<td>29.38</td>
<td>6.25</td>
</tr>
<tr>
<td>Jiangxi</td>
<td>100.00</td>
<td>11.79</td>
<td>35.76</td>
<td>5.21</td>
<td>26.32</td>
<td>6.28</td>
</tr>
<tr>
<td>Henan</td>
<td>100.00</td>
<td>9.04</td>
<td>33.47</td>
<td>11.39</td>
<td>30.22</td>
<td>4.06</td>
</tr>
<tr>
<td>Hubei</td>
<td>100.00</td>
<td>8.38</td>
<td>36.90</td>
<td>5.28</td>
<td>22.65</td>
<td>5.92</td>
</tr>
<tr>
<td>Sichuan</td>
<td>100.00</td>
<td>6.36</td>
<td>17.01</td>
<td>7.92</td>
<td>22.42</td>
<td>4.87</td>
</tr>
</tbody>
</table>

\(^1\)TVE support fund and fund from supervisory agencies.
\(^2\)Borrowing from other units/individuals/external sources.
\(^3\)Retained profits and pooled funds.

Table 11. TVE Capital by Source

<table>
<thead>
<tr>
<th>Own Resources</th>
<th>Borrowed Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>Profit</td>
</tr>
<tr>
<td>Outside</td>
<td></td>
</tr>
<tr>
<td>source</td>
<td>Retained</td>
</tr>
<tr>
<td></td>
<td>profit</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>State support</td>
<td>Development</td>
</tr>
<tr>
<td>fund allocation</td>
<td>fund</td>
</tr>
<tr>
<td></td>
<td>Welfare fund</td>
</tr>
<tr>
<td>State support</td>
<td>Bonuses fund</td>
</tr>
<tr>
<td>allocation</td>
<td></td>
</tr>
<tr>
<td>Town and</td>
<td>Enterprise</td>
</tr>
<tr>
<td>local</td>
<td></td>
</tr>
<tr>
<td>investment</td>
<td></td>
</tr>
<tr>
<td>fund</td>
<td></td>
</tr>
<tr>
<td>Investment by</td>
<td>Education</td>
</tr>
<tr>
<td>other units/</td>
<td>fund</td>
</tr>
<tr>
<td>individuals</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Table 12. Distribution of Loans

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Billion yuan, end of period)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total loans</td>
<td>1,142</td>
<td>1,347</td>
<td>1,654</td>
<td>1,981</td>
<td>2,243</td>
</tr>
<tr>
<td>Industry</td>
<td>563</td>
<td>675</td>
<td>837</td>
<td>1,015</td>
<td>1,156</td>
</tr>
<tr>
<td>Working capital</td>
<td>425</td>
<td>518</td>
<td>639</td>
<td>741</td>
<td>832</td>
</tr>
<tr>
<td>Industrial enterprises</td>
<td>310</td>
<td>387</td>
<td>469</td>
<td>575</td>
<td>639</td>
</tr>
<tr>
<td>Construction organizations</td>
<td>49</td>
<td>60</td>
<td>67</td>
<td>72</td>
<td>84</td>
</tr>
<tr>
<td>Collective enterprises and individuals</td>
<td>66</td>
<td>71</td>
<td>83</td>
<td>95</td>
<td>109</td>
</tr>
<tr>
<td>Fixed investment</td>
<td>139</td>
<td>157</td>
<td>198</td>
<td>274</td>
<td>324</td>
</tr>
<tr>
<td>Commerce</td>
<td>410</td>
<td>477</td>
<td>576</td>
<td>668</td>
<td>703</td>
</tr>
<tr>
<td>Agriculture</td>
<td>169</td>
<td>196</td>
<td>241</td>
<td>298</td>
<td>384</td>
</tr>
</tbody>
</table>

(Percentage change from previous year)

|                     | 16.5  | 18.0  | 22.8  | 19.8  | 21.4  |
| Industry            | 15.5  | 19.8  | 24.1  | 21.3  | 21.8  |
| Working capital     | 13.0  | 21.9  | 23.4  | 16.0  | 17.9  |
| Fixed investment    | 24.0  | 13.2  | 26.2  | 38.5  | 33.1  |
| Commerce            | 17.0  | 16.4  | 20.8  | 16.0  | 18.7  |
| Agriculture         | 18.4  | 15.8  | 23.3  | 23.4  | 25.8  |

(As percentage of total loans)

|                     | 49.3  | 50.1  | 50.6  | 51.3  | 51.5  |
| Industry            | 37.2  | 36.4  | 38.6  | 37.4  | 37.1  |
| Working capital     | 12.1  | 11.7  | 12.0  | 13.9  | 14.4  |
| Fixed investment    | 35.9  | 35.4  | 34.8  | 33.7  | 31.3  |
| Commerce            | 14.8  | 14.5  | 14.6  | 15.0  | 17.1  |

Source: People's Bank of China.

1 Includes gross renminbi lending to enterprises and individuals by the People's Bank, the specialized and universal banks, and RCCs.
2 Includes loans to construction enterprises. Excludes loans to rural industrial enterprises, which are included under loans for agriculture.
3 Includes other loans of the People's Bank and of the universal and specialized banks.
4 Includes credit for agricultural procurement.
5 Includes loans to rural industrial enterprises.

Working capital brings out another dimension of financing. Although information is incomplete, Tables 12 and 13 reveal some interesting details. First, of total loans to industry, those for working capital are roughly three times as large as those for fixed investment. Second, working capital loans to collective and individual enterprises range between 10 and 12 percent, the lion's share being absorbed by state firms. This is consistent with the above picture on the financing of fixed investment. However, Tables 12 and 13, when juxtaposed with Table 10, also suggest that collectives and TVEs are far more
dependent on bank borrowing for working capital than for fixed capital. ABC's lending for working capital is three times as much as for fixed capital. For the RCCs, the ratio is approximately four to one in favor of working capital. This is consistent with evidence from other countries, in which banks and other nonfinancial institutions prefer to make less risky, short-term loans for working capital, as against loans for fixed capital. This dependence on loans for working capital was brought out by the sharp contraction in rural industry growth caused by deflationary credit policies in late 1989.

### Other Sources of Financing

Since rural enterprises do not derive much of their fixed capital financing from banks or financial markets, they have to rely on other sources. There are four main avenues: extrabudgetary resources and retained funds of enterprises; the savings and contributions of family and kinfolk; informal banks; and direct foreign investment. The first
was discussed above and its significance underscored. Its salience derives from the approach to decentralization, which retained the basic framework of administrative control at the subnational level, maintained earlier modes of financing, and delayed the development of a financial sector oriented toward industry.

The persuasiveness of the second avenue, of which there is frequent anecdotal mention and modest validation through surveys, is related to social structures. Chinese society has highly articulated kinship ties within a well-defined hierarchical framework. At the core is the family, which inculcates and perpetuates disciplined role compliance and a profound sense of reciprocal obligation. Such a social architecture facilitates social networking and cooperation. By emphasizing trust, these social networks minimize transaction costs and serve as an institutional alternative to contract law. Trust promotes the mobility of resources within a social network and keeps down the price. In other words, because social rules ensure that commitments are adhered to, the exchange and pooling of capital is eased. Further, because there is a sense that kinfolk will benefit from the success of the individual, either directly or indirectly, interest charges are low or nonexistent.

As a consequence, the mobilization of capital for small-scale rural enterprises, from family and relatives, whether within or outside China, has worked to a degree unmatched in other countries. In the more agricultural communities, interfamilial lending can be for nonproductive activities, but, in the more industrialized rural counties, the social marketplace is an important source of capital that usefully supplements other resources.

A remembered tradition and the existence of stable social networks are also behind the reappearance and spread of informal banking. This was initially observed in the thriving county of Wenzhou (Zhejiang province), but has since taken root in Fujian and other coastal

---

42 Feder and others (1989, pp. 514 and 516) observed that the majority of informal credit transactions were interest-free transactions between relatives. In Jiangsu, they accounted for the bulk of borrowing, but in Jilin, their share was small.
43 For instance, rotating credit and savings associations are worldwide phenomena. They are simple, flexible, and contain effective mechanisms that regulate membership, eligibility, credit rating, and repayment. As Bauman (1983) observes, “the smallness of the group ensures members’ knowledge of others’ character. Coupled with social control, this is an important barrier against fraud and defaulting.” Geertz (1962) has discussed how kinship ties discourage fraud and evasion. He also stresses the importance of communal responsibilities and support systems in supporting emergent financial activities. These serve as the foundation of a more sophisticated financial system.
provinces, filling niches left untouched by the public institutions. In many respects, informal banking is well suited to servicing rural industrialization at its current level. With markets still relatively immature and lacking in institutional depth, risk is especially troubling, and the search for information takes on a special intensity. For financiers, firsthand knowledge of borrowers, their intentions, and their capabilities becomes critical. Such detailed knowledge is the only way of effectively screening risks and functioning profitably in a fluid environment. Because an individual member can only gather comprehensive information on a modest number of clients, the scale of informal banking is limited. It is an activity that does not enjoy economies of scale. But on its chosen level, it can be both efficient and competitive. This is especially so in China's rural counties, because social mores and kinship ties can be used by lenders for insurance purposes. Fuzzy property rights, which involve a sharing of risks with public bodies, provide additional comfort. Informal banking can count on two useful buffers—the trust engendered by kin-based obligations and risk sharing with the community through fuzzy ownership rights. As official sanction against such financial institutions has weakened, they are becoming a force in at least some of the coastal counties, although their aggregate contributions may be modest.

Direct foreign investment is the remaining major element in the financing picture. Between 1979 and 1991, overseas investors committed $49 billion, initially to developing tourism, commercial real estate, and petroleum resources, but increasingly the focus shifted to manufacturing. In recent years, close to 80 percent of all foreign direct investment was in manufacturing. Most of the capital was in small-scale, export-oriented TVEs in the 11 coastal areas, with as much as 55 percent being in Guangdong and Fujian. On the average (see Table 14), annual disbursements were $2-3 billion in the late 1980s, rising to $4 billion in 1990-91. In 1992, commitments rose to $52 billion, greater than the entire amount committed through the previous year, and $9 billion were spent. Disbursements climbed to over $20 billion in 1993.

Foreign direct investment has been of distinct importance to the growth of rural industry in the coastal provinces because it has provided manufacturers with capital equipment, usually secondhand,

---

44 Tam (1991) refers to institutions that have evolved from informal credit associations (hu1) and private money shops (qian zhuang).
46 The projection for commitments in 1993 is in the $70-80 billion range.
Table 14. Foreign Direct Investment

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Disbursements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>1.03</td>
</tr>
<tr>
<td>1986</td>
<td>1.43</td>
</tr>
<tr>
<td>1987</td>
<td>1.67</td>
</tr>
<tr>
<td>1988</td>
<td>2.34</td>
</tr>
<tr>
<td>1989</td>
<td>2.61</td>
</tr>
<tr>
<td>1990</td>
<td>2.66</td>
</tr>
<tr>
<td>1991</td>
<td>3.45</td>
</tr>
<tr>
<td>1992</td>
<td>9.00</td>
</tr>
</tbody>
</table>

Source: China Statistical Yearbook; World Bank staff estimates.

1Refers to actual foreign capital inflows, including value of secondhand capital equipment transferred to Chinese factories. However, this is a gross figure and does not exclude Chinese overseas investment.

and raw material for processing. This accounts for the bulk of the inflow. Some injections of cash also occur—about $1.5 billion in 1992—but these have been between 15 and 25 percent of the disbursed amount.

Foreign direct investment during the 1980s followed a pattern that significantly influenced China’s development. First, as indicated above, it was drawn toward the manufacturing sector, especially toward processing activities with a high export quotient. In this fashion, it has taken advantage of China’s low labor cost, its proximity to Hong Kong, and the incentives given to earn foreign exchange. Second, the average scale of individual investments was about $0.5 million in the late 1980s, rising to $1.5 million in 1992. This reflects the focus of foreign direct investment on export processing. Third, a disproportionate share of foreign investment has been in the special economic zones and in the southeast coastal provinces. In recent years, more of the funds have been flowing to the east and northeastern provinces, but Guangdong and Fujian continue to absorb a large part of the total. Fourth, foreign direct investment has been distributed across both the state and the nonstate sectors, but its

47Khan (1991) has estimated that, during the first half of 1988, the flow of foreign direct investment amounted to 13 percent of total investment in fixed assets in the 14 “open cities” and 60 percent of gross investment in the five special economic zones. If measured at the swap market exchange rate of $1 = Y 5, the amount would be 17 percent and 82 percent, respectively.

48In 1992, Jiangsu province ranked second to Guangdong in the number of projects with foreign funding that were approved, as well as in total commitment of foreign direct investment. This may be indicative of the northward shift of such investment (Journal of Business, March 23, 1993).
effect on the nonstate sector, in the southeastern and eastern prov-
inces, has been overwhelming. In Guangdong, Fujian, Zhejiang, and
Jiangsu, the share of state industry was under 40 percent in 1991
(Table 15). Undoubtedly, other factors have contributed. For instance,
the share of state enterprises has always been low in Zhejiang
because of the strength of collective/cooperative tradition, but foreign
direct investment has served to alter the composition of industry.

The influence of foreign direct investment on capital accumulation
and growth has been explored by Kueh (1992). The first relationship
is stronger than the second; that is, foreign direct investment has had
a marked effect on fixed capital investment in most but not all of the
coastal areas, but not all have responded as quickly to the injection of
funds. The special economic zones in Guangdong and Fujian have
derived the most benefits. Other municipalities, such as Tianjin and
Dalian, have absorbed a large volume of foreign direct investment,
but, because of either gestation lags or a decline in domestic effort,
growth has been slow to respond.

Although they have been aided by geographical location, China’s
provincial authorities have played a pivotal role. Once the Central
Government had embarked on a policy of decentralization and
reform, it was the attitude of the local authorities that determined the
economic environment. They decided the parameters of collective,

Table 15. Nonstate Industrial Sector, Selected Provinces, 1991
(Percentage share of GVI0)

<table>
<thead>
<tr>
<th>Province</th>
<th>Total</th>
<th>SOEs 1</th>
<th>UCOEs 2</th>
<th>RCOEs 3</th>
<th>Individual 4</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>100.00</td>
<td>52.84</td>
<td>15.08</td>
<td>20.66</td>
<td>5.76</td>
<td>5.71</td>
</tr>
<tr>
<td>Liaoning</td>
<td>100.00</td>
<td>60.25</td>
<td>13.90</td>
<td>14.18</td>
<td>7.26</td>
<td>4.42</td>
</tr>
<tr>
<td>Shandong</td>
<td>100.00</td>
<td>39.68</td>
<td>17.66</td>
<td>33.88</td>
<td>7.85</td>
<td>0.93</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>100.00</td>
<td>33.06</td>
<td>16.69</td>
<td>41.59</td>
<td>3.57</td>
<td>5.08</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>100.00</td>
<td>29.46</td>
<td>22.44</td>
<td>38.63</td>
<td>6.77</td>
<td>3.26</td>
</tr>
<tr>
<td>Fujian</td>
<td>100.00</td>
<td>40.68</td>
<td>15.60</td>
<td>16.15</td>
<td>6.01</td>
<td>21.56</td>
</tr>
<tr>
<td>Guangdong</td>
<td>100.00</td>
<td>38.24</td>
<td>16.10</td>
<td>16.92</td>
<td>4.62</td>
<td>24.12</td>
</tr>
<tr>
<td>Shanxi</td>
<td>100.00</td>
<td>61.19</td>
<td>11.76</td>
<td>20.26</td>
<td>6.54</td>
<td>0.24</td>
</tr>
<tr>
<td>Hubel</td>
<td>100.00</td>
<td>62.90</td>
<td>16.25</td>
<td>15.51</td>
<td>4.25</td>
<td>1.09</td>
</tr>
<tr>
<td>Gansu</td>
<td>100.00</td>
<td>77.73</td>
<td>9.86</td>
<td>7.97</td>
<td>4.12</td>
<td>0.32</td>
</tr>
<tr>
<td>Yunnan</td>
<td>100.00</td>
<td>76.50</td>
<td>12.14</td>
<td>6.20</td>
<td>2.66</td>
<td>0.49</td>
</tr>
</tbody>
</table>

1State-owned enterprises.
2Urban collectives.
3Rural collectives.
4Individually owned enterprises.
private, and "other" development. Decentralization gave them the opportunity, and fiscal reforms, by enabling them to retain more resources, stimulated an active, entrepreneurial seeking after foreign direct investment. New fiscal arrangements had two other consequences. First, even though it was the center that decided on taxes and set rates, local governments could negotiate tax rebates and special incentives with investors. Individual provinces used these ill-defined powers more or less sparingly, but Fujian and Guangdong, with the most generous tax deals, have been especially aggressive. Banking on long-run gains, they have used tax instruments fully to draw in foreign direct investment.

Second, to make their county or municipality attractive to foreign investors, local governments have used administrative freedom and command over resources to build the necessary infrastructure. Thus, spending on transport, land development, energy, housing, sewerage, and water facilities has been critical to the crowding in of not only domestic investment but also foreign direct investment. Local governments have manipulated a number of levers to finance social overhead capital, including bank financing, grants from the center, and loans from various donors. But the fiscal leeway provided by decentralization enabled them to start the virtuous spiral.

The steep rise in foreign direct investment in 1992-93, if it persists well into the 1990s, will have a sizable impact on industrial financing. It could boost the already very high growth rate of the nonstate sector, and, because foreign direct investment is becoming more evenly distributed along the coast, its effects will be felt by collective and private enterprises in the northeastern parts of the country as well.

**Future Implications, Trends, Problems, and Policies**

A number of inferences on future trends can be drawn from the above discussion. Certain problems that could become troublesome if not dealt with through policy action are also indicated.

It seems that the impetus provided by fiscal decentralization may now have spent itself. An increase in local financing, through fiscal or quasi-fiscal channels, is unlikely. If anything, it could decline if tax reforms are introduced. More of the nonstate sector's funding will come from financial intermediaries. Of these, the "informal" banks, credit cooperatives, finance companies, TICs, and security houses may expand fastest, at least over the next five years. Private, cooperative, and collective enterprises will remain small-scale operations, concentrated in rural townships and in the urban peripheries of the
cities. Their needs will be more efficiently served by small intermediaries that are well supplied with intelligence on borrowers, their kinfolk, and local politics.

However, the high returns from lending to the nonstate sector will surely draw the specialized banks more directly into the fray. They are already involved through their TICs and finance companies, but if the share of state industry in industrial output shrinks further and profitability differentials widen, banks are bound to redirect their activities. When that happens, the state sector will not be absorbing two-thirds of all credit, nor will the apparent financial transfer from rural to urban areas persist. A deepening of the financial system, which caters to the needs of nonstate industry, will accelerate the shift away from own resources and those of relatives. Enterprises will come to depend more on funds borrowed from intermediaries, formal or informal. As this trend continues, and China becomes more of a market-centered economy with many foreign-owned firms, a clearer definition of property rights for all firms will become urgent. 49

If the apparently successful approach of the 1980s is extrapolated into the 1990s, the Government should limit itself to creating a well-specified institutional framework for financial development and concentrate its energies on regulating the multiplicity of emerging intermediaries. The importance of effective regulation by the central authorities cannot be minimized. Past experience suggests that spontaneous forces can meet most though not all of the industry's needs. Long-term finance is usually the bottleneck that the market has the greatest difficulty in correcting. It may call for government initiatives. Furthermore, special financial provisions might be necessary to spur rural industrialization in the less economically progressive interior regions of the country. 50

Under current circumstances, fuzzy property rights are not a significant impediment and may have an essential role in the transition. But a China in which enterprises function in a market environment, which has a large traded goods sector, absorbs billions of dollars in foreign direct investment each year, and develops a thriving financial sector to support the real economy, will have to delineate property rights and elaborate civil law underpinning economic relations. This

---

50 One recent initiative, which reflects both the changed attitude toward rural industry and the Central Government's desire to assist the interior provinces, is the earmarking (started in 1993) of Y 5 billion in credit annually by the People's Bank of China for TVEs in the middle and western regions of China.
will have a critical bearing on the future development of financial markets and instruments.

Although it is difficult to speak confidently of the future on the basis of changes that have become apparent only since mid-1991, China is committed to retaining a large, state-owned, industrial sector, but is also prepared to push the private, collective, and "foreign-invested" enterprises. By the decade's end, close to two-thirds of industrial output might be produced by nonstate entities.

Whether this comes to pass will be a function of the economic environment. At the minimum, macrostability must be sustained; center-local relations must be such as to ensure a balanced sharing of fiscal resources and administrative responsibilities; and the essential, minimum, legal institutions must be in place to ensure fair treatment of economic units by the state and efficient interaction in the marketplace.

This paper is not the place to delve deep into China's current macroeconomic and institutional problems, but in each of the above areas there is cause for worry.

Largely because of decentralization, the Central Government's control over fiscal levers, as well as the management of credit, is fairly weak. This has become painfully apparent in 1992-93. Revenue growth has continued to lag and credit targets have been impossible to enforce as banks responded to profit opportunities and signals from local authorities. These imbalances must be solved principally through the political process, but they will also require administrative changes and the use of new policy instruments. A new round of fiscal reforms was started in 1993. It will need to be implemented vigorously.

As China continues its transition toward a market economy, the mechanisms for sustaining a civic culture, regulating industry, and enforcing individual as well as official accountability are beginning to fray. If not reversed, strains in the society could be generated that could slow and distort the direction of development.

Last, regional imbalances are becoming more pronounced. To a degree, they are unavoidable. But the weakness of the Central Government, especially in the fiscal sphere, interferes with its ability to support the growth of the nonstate economy in the interior provinces. China has dealt with equally troublesome problems in the past and could do so again. Its overall economic condition is strong, and it has attained an enviable economic momentum. From this position of economic strength, it would be possible to take remedial actions that would secure the future of the economy.
References


Naughton, Barry, “Reform and Stabilization in China” (unpublished; University of California, San Diego, 1992).


I very much enjoyed reading this paper, which contains a vivid and detailed description of China's industrial development. The paper correctly emphasizes the spontaneous nature of the growth of the nonstate enterprise sector, which was facilitated by political and financial decentralization and by the ambiguous state of property rights. The paper is somewhat less explicit in describing the financial system, but it does clearly establish that there is an essentially dualistic system in which the four large state banks concentrate resources on the state-owned enterprises and a series of smaller institutions finance the collective and private enterprises.

I would like to concentrate my comments on the deficiencies and risks of the present financial arrangements, to which Mr. Yusuf alludes in the final section of the paper but on which he does not really elaborate.

First of all, there are serious risks of a prudential nature throughout the financial system and particularly as regards the smaller intermediaries that finance the collective and private enterprises, given that the state stands behind the large specialized banks and the enterprises to which they lend. Although provisional regulations govern China's financial system, there is as yet no banking law and, more important, the regulatory powers of the People's Bank of China, China's central bank, are very underdeveloped. Furthermore, there is no prudential supervision as we know it. In this setting one has to worry about informal banks lending on the basis of family or personal ties. The failure of several of these institutions at the same time could have profound ramifications for the collective and private enterprises that, as Mr. Yusuf describes, are now responsible for approximately half of China's output.

In addition, problems of monetary policy exist that both derive from and contribute to the shape of the financial system. For example, negative real interest rates for deposits and loans in the official system have contributed to the rapid growth of smaller intermediaries, some of which are little more than fronts for the larger banks. In many cases, therefore, collective and private enterprises are paying relatively high rates of interest to offset the low rates paid by state enterprises. Also the risk is created of large flows of deposits between the formal and informal systems as interest rate relationships change.

The collective and private enterprises would be in particular jeopardy if China were to lose control of the inflationary process or alter-
natively if the authorities were to decide to clamp down strongly on credit in a manner that discriminates against the nonstate sector. In 1988, the People's Bank simply froze the operations of the credit cooperatives and other smaller intermediaries. If this occurred again, in direct fashion or indirectly by prohibiting specialized banks from lending to nonbanks, the financing of the collectives and private enterprises could be seriously disrupted.

Hence, as far as China has come in its development, one has to conclude that development of the financial sector has lagged far behind that of the real sector. Establishment of an adequate legal system and of prudential supervision is urgently needed. It is likely that the present structure of the financial system with four large nationwide specialized banks will not be tenable for much longer. Finally, the workability of the present system will be affected by macroeconomic conditions.
PART V

Roundtable on Financial Reforms and Their Implementation
Roundtable on Financial Reforms and Their Implementation

Manuel Guitián

In this roundtable, we have been asked to address three basic questions that arose in the various sessions of the conference: How to handle the issue of bank portfolios or how to deal with bad debts; how predominant is the role of banks as intermediaries in the process of transition relative to that of securities and capital markets; and how important is the establishment of a sound banking or financial system for the process of reform. I will endeavor to answer those questions in my presentation, though I will take them in inverse order.

The process of transition from central planning to a market regime, to be durable, will require the establishment of appropriate channels for the mobilization and allocation of savings and investment. And judging from the experience of those economies already operating on the basis of market forces, there can be hardly any doubt of the essential and critical role that a sound banking and financial sector plays on these fronts. Indeed, a strong argument can be made that the existence of sound banks and financial intermediaries is a necessary condition for the proper functioning of market-based regimes of economic organization. I hasten to add, though, that it will not be a sufficient condition, as sufficiency will need to be supported by reforms in other areas, a point I hope also to make clear in these remarks.

The development of a sound and competitive banking and financial sector will entail reforms on a variety of levels, including in particular the central bank and the commercial banks. Further down the line, of course, this process will also involve measures related to the securi-

---

1The views expressed in the paper are the author's, and they should not be attributed to the International Monetary Fund.
ties and capital markets. In this context, I think that in many emerging market economies initial conditions are such that, at least during the early stages of reform, the bulk of resource intermediation will likely be channeled through the banking sector. In fact, then, banks will in all probability play the primary role of intermediaries, with securities and capital markets developing as needs evolve in those economies for diversified financing and asset holding.

In the banking area, reforms will be required to place the central bank in a position to formulate and conduct monetary policy and to ensure that commercial banks contribute, on a competitive basis, to efficient resource mobilization and allocation in the economy. Many of these points have been discussed at length in the various sessions of the conference and there is no need to repeat them here. I will focus my remarks on the specifics of the roles to be played by the central bank and the commercial banks in the reform effort. In the process, I will illustrate the close linkage that binds monetary policy with the soundness and competitiveness of the banking system. And I will also highlight the extent to which banking sector reform will need to be supported by policy actions in other areas and sectors of the economy.

**Central Bank Role in Financial Reform**

A first requirement for effective financial reform is the establishment of a monetary authority, which typically means the setting up of a central bank with responsibility (and the means) for designing and conducting monetary management. The mere existence of a central bank does not always ensure the presence of a clear monetary authority, however. One important reason relates to the interaction of the government with the central bank that is typical of many emerging market economies. This interaction often involves monetary financing of the budget, thus subordinating monetary policy to the needs of fiscal policy. But there are other obstacles, such as the prevalence of directed credit flows or subsidies channeled through the central bank, that also impair the character and effectiveness of the monetary authority.

The elimination of these obstacles will require establishing an arm’s-length relationship between the government and the central bank, that is, providing a substantial measure of independence to the central bank. In effect, it will require underpinning the central bank’s responsibility for monetary policy with the authority necessary to design and implement it. In general, the degree of central bank inde-
pendence varies in market economies, and it is generally nonexistent in reforming countries. In the latter, before such independence can be considered, thorny issues like a significant measure of budget balance and the elimination of subsidies granted through the central bank will have to be resolved. Such a situation illustrates clearly the need to undertake reform efforts simultaneously on a variety of fronts. Central bank authority can hardly be expected to be attained or maintained without decisive fiscal adjustment.

One way of introducing the principle of monetary policy independence is through the adoption of simple policy rules. This is the attractiveness of the currency board principle, but alternative rules can of course be devised, such as the establishment of a nominal exchange rate anchor or the pursuit of a predetermined growth rate in the money stock. All these rules will require a good measure of (sustainable) fiscal balance in the economy, however.

Commercial Bank Portfolios

A necessary complement to the establishment of a monetary authority is the development both of a sound banking sector and of ground rules for competition in banking. The prevalence of competition is critical whether the model followed is one of universal or of specialized banks. But there are many hurdles on the road to bank competition for transition economies. Most are a legacy of central planning, and they include undue concentration, unclear ownership and property rules, dependence on official subsidies and budget support, and, most important, portfolio vulnerability.

Thus, I come to the third question raised for this roundtable discussion: the low quality of bank portfolios and how it should best be handled. There are two aspects to this issue: first, a stock problem, which relates to the outstanding debts to banks, and, second, a flow problem, which refers to new bank loans or more generally to the issue of changing prospective bank behavior. I believe this is one of the problems that most needs to be dealt with decisively. Regardless of what prospects there may be for write-offs of bank assets and liabilities (such as arise in the context of monetary reform), there are two basic routes to address the problem. The first (and possibly the most transparent) is the fiscal route, whereby banks would be restored to financial health by capitalizing them by substituting government paper for nonperforming bank assets. This method strengthens the banks at the cost of burdening the government
budget with the servicing of the securities issued to banks, so that ultimately, the cost of cleaning bank portfolios falls on the taxpayer.

The second route requires the banks to earn the resources to strengthen their portfolios, that is, that bank profits be used to provision against low-quality assets. The feasibility of this solution depends on the scale of the portfolio problem and the profitability of banks. Ultimately, this method shifts the cost of portfolio strengthening to bank customers.

Both methods, however, give rise to a potential moral hazard risk that should be contained. The risk, as always, results from shifting the costs of the operation from those responsible for the problem (the banks and the enterprises) to others (taxpayers or bank customers). An important issue raised by the presence of vulnerable bank portfolios is the need to support the process of cleaning the banks' books with a corresponding rehabilitation of enterprises. Here we have yet another illustration of the need to underpin financial reform with policy action on other fronts.

**Bank Supervision**

Banking reform, to be effective, must include as one of its critical elements the establishment of an appropriate supervisory framework to foster and safeguard the soundness of the sector. There is much to learn, in this context, from the experience over the last decade in many market economies, a period during which they engaged in deregulating and liberalizing the financial sector without, in many cases, taking commensurate measures in the area of supervision. As this experience makes abundantly clear, economic efficiency will be greatly enhanced by deregulation, decontrol, and liberalization, but the effectiveness of the third element will be greatly helped by the adoption of proper supervisory norms. This is so if only because of the clear connection that exists between monetary policy and the state of affairs in the banking system. Policy signals, which typically point in a given direction, can have adverse effects when bank portfolios are unsound. It should not be surprising then that central banks have a legitimate interest in the broad areas of supervision and prudential regulation. Such interest is actually only a reflection of a traditional central bank responsibility: concern for the soundness and the safety of the banking system. This question is independent of the assignment within the government of the responsibility for bank supervision, which is a separate issue that falls beyond the scope of my remarks.
For the emerging market economies, action in the areas of supervision and prudential regulation entails, first, the adoption of measures aimed at prevention, which include regulatory practices such as market entry requirements, capital adequacy rules, balance sheet control criteria, and on-site and off-site inspection procedures. It involves, in addition, steps aimed at protection, which encompass safeguards for depositors, such as those provided by deposit insurance schemes, and safeguards for the financial system at large through the provision of support by exercising the central bank’s lender-of-last-resort functions. Since moral hazard risks can also arise from the operation of these safeguards, it is desirable to define the boundaries, that is, the terms and conditions of the protection mechanisms transparently from the outset.

Implementation of Financial Reform

Progress in financial sector reforms has been made in most economies in transition, but its extent has varied substantially. In general, much remains to be done in the central banking area to establish full-fledged monetary authorities. In addition to the fiscal adjustment required, the relationship of the central bank with the government will have to be defined, the former’s authority over commercial banks established, and adequate supervision introduced.

On the commercial bank front, there remains the problem of vulnerable portfolios in many cases, with the implications involved for the rehabilitation of state enterprises. But in addition, scope for action remains in the search for competitiveness in banking and in the elimination of bank reliance on public resources and subsidies. These problems have been compounded by undue proliferation of new banking units.

Concluding Remarks

A key point that warrants stressing when discussing the transition from central planning to a market system is the similarity rather than the divergence between the experience of formerly centrally planned and market economies. From a fundamental standpoint, the differences in the problems confronting each type of economy are more a matter of degree than a matter of essence. I grant that, when sufficiently large, differences in degree can become differences in essence from a practical perspective. In fact, however, there are elements of markets in centrally planned economies, just as there are elements of
nonmarket forces in market economies. What makes the difference, in effect, is the particular mix of market and nonmarket forces that prevails at a particular time. It is, thus, only natural that many of the problems confronting all economies exhibit a significant degree of commonality.

As far as central banks are concerned, only relatively recently has their independence been stressed in market economies as being essential to achieve price stability—the objective now generally accepted as primary for monetary policy—and a consensus that is also of relatively recent vintage. Let us not forget that neither the absence of an arm's-length relationship with governments nor the extension of subsidies or selective credit flows are exclusive to central banks in centrally planned economies. And with regard to commercial banks and other financial intermediaries, it is not so long ago that their operations were conducted in restrictive settings with ample official administrative interference in the form of credit controls and interest regulations, among other measures.

Given this background, two central points can be thought of as encompassing the essence of the experience in the West that are worth transmitting to the economies in the East. First, focus promptly on the importance of market forces as guides for resource allocation and define as clearly as possible the role of government in the new environment. And second, since the scope of reforms that formerly centrally planned economies need to undertake is so widespread, there is a strong presumption that speed and depth in the reform effort will be essential. Thus, when it comes to the pace of reform, I am with those who favor prompt and broad actions.

We have been asked to address three particular aspects of the subject matter of this conference. I would like to offer brief remarks on each, and to add two other comments on relevant issues.

First, we are asked how the emerging market economies should deal with bad debts. I would draw a distinction at the outset between external and internal indebtedness. The servicing and repayment of external debt has a critical impact on a country's external creditworthiness and hence on the terms on which external financing can be raised. External debt needs therefore to be honored in full, and any restructuring needs to be undertaken in an orderly manner on the basis of negotiation in good faith with external creditors.
Internal indebtedness may need fundamental reorganization, and a variety of techniques for handling that task have been discussed at this conference. Many of these techniques undoubtedly have their uses and the question of which, if any, of them is utilized needs to be assessed on its merits in the context of each particular situation. But at a more fundamental level, it may be necessary to conclude that, as when any edifice collapses, some parts are reusable and others are not. In building a new market-based financial edifice for the economy, some of the accumulated internal assets and liabilities may simply not be reusable—however sophisticated the techniques available for renovating or restructuring them. There may then be no sensible alternative to clearing some of them away through appropriate administrative provisions.

Second, we are asked to indicate what should be the priorities in organizing the architecture of the financial system for emerging market economies. My own view is that there should be three priority areas and two key guiding principles. The first priority area should be the banking system, because only an effectively functioning and soundly based banking system can provide the payment system that is in turn an essential artery for any market economy. The banking system can also be an effective source of lending for regenerating business activity in the economy, but I would place the greater priority on the need for an effective payment system.

The second priority area should be secondary markets in financial assets—money market instruments, bonds, and equities. Such markets are important for a variety of reasons, partly because they provide a means of identifying and calibrating the cost of money and capital and for allocating it among competing uses; partly because they enable individuals and businesses to employ their savings and liquid resources at realistic rates by making them available to those who have outlets to utilize them; partly because financial markets provide a means for governments to fund their budget deficits in a noninflationary manner; and partly because they facilitate privatization of state enterprises.

The third priority area should be a coherent legal and regulatory framework to ensure that these avenues of financial intermediation—the banking system and financial market assets—can function reliably and safely.

The first key guiding principle in developing these priority areas is KISS. Complicated and sophisticated structures are neither necessary nor feasible. At the initial stage, it is perfectly possible to develop relatively basic, simple, elemental structures that will deliver all that is needed and the aim should therefore be to “keep things simple” at the start.
The second key guiding principle is to remind oneself continually that many of the necessary structures will develop spontaneously if given opportunity to do so, as indeed has happened in many of the developed economies. The aim therefore should not be to try to develop detailed blueprints to be imposed administratively from on high but to put the emphasis more on managing the process of spontaneous development so that the desired basic structure can be achieved more quickly, with less cost, and with less chaos than if it was left totally to spontaneous forces.

The third area on which we have been asked to comment is how important a well-functioning financial system is to the development of the emerging market economies. My own view is that it should be regarded as a high priority and I have tried to indicate some of the specific benefits earlier. But perhaps what is more important is not where in the pecking order of priorities the financial system should lie, but how quickly one should try to develop the necessary structures. Just as I believe it is important to keep things simple at the start, so too do I believe that gradualism is likely to provide far more effective results than any attempt at a rapid move to a fully functioning free market financial system. The merit of a gradualist approach is that it enables the economy as a whole, which after all the financial system is there to serve, to adapt progressively to the new system—to learn how to use it and what it implies for the way that businesses and government conduct their financial activity. It also enables financial intermediaries themselves to develop the necessary skills, both on the job and through external training. I recognize however that managing change on this scale at an orderly pace places a considerable premium on a strong and coherent administrative apparatus and that the task is not an easy one.

I would like to add two other remarks on the subject area of this conference. First, I feel that it is important to recognize that embryonic markets may need a quite different approach by those who seek to nurture and oversee their development from that appropriate for fully developed markets. Paradoxically, managing the development of a market-based financial system from scratch may mean being prepared in the initial stages to mount on a temporary basis distinctly nonmarket initiatives, and to intervene at times administratively in ways that would be regarded in a full-fledged system as unwarranted interference with market forces, precisely to ensure that the embryonic structures do actually develop along market-based lines.

Second, the points I have tried to make in these brief remarks have direct application for those of us engaged in offering technical assistance in the financial area to the emerging market economies. In
trying to help the architects of the new market economies, we need to think through very carefully how we can best contribute to their work in tackling the difficult and daunting challenges they face. We need in particular to recognize that large numbers of technical experts, or missions comprising large teams, and advice delivered in the form of long written reports may be more than they can digest given the day-to-day demands they are already facing. It may be much more fruitful to try to develop informal bilateral working relationships between individual technical experts and local administrators, with more continuous contact between the two maintained through telephone or fax communication interspersed with regular short visits. In this way the focus is on the day-to-day management of financial reform implemented on a gradualist and ongoing basis. The precise needs of the situation will plainly differ from case to case, but the important point is that effective technical assistance may be less a function of the quantum of help given than of the manner of its delivery.

Salvatore Zecchini

In dealing with the European economies in systemic transformation, financial reform is not the proper term or vantage point to use to evaluate what changes are required in the financial system to underpin the growth of a market economy. There are too few components of the old financial system to be reformed and too many have to be created from a vacuum. The determinant characteristic of the old system was the presence of a primitive financial infrastructure that revolved around a functional relationship between the central plan and the public budget on the one side, and the central bank and a few highly specialized institutions on the other. Financial institutions acted mostly as passive instruments to implement the central plan in a rather exclusive and pyramidal division of labor. The payment system was a monopoly of the central bank, while a few institutions were responsible either for deposit taking or for long-term lending to some economic sectors. The most important financial functions, such as maximization of domestic savings, credit creation, and capital allocation, were fulfilled by the central economic plan, through setting price, investment, and income levels, and by the public budget through capital expenditures and taxation.

If the monopoly of the state over the monetary and credit mechanisms led to financial repression, an even more important consequence was financial suppression. As with the rest of the economy, the removal of oppressive regulations through reforms does not auto-
matically ensure the growth of a financial infrastructure that can foster economic development. Two additional factors are also necessary: market forces that prod financial innovation and a legal and institutional environment that provides transparency and enforceability to financial relationships. As these two factors are still lacking in these economies, the construction of an entirely new system of rules, institutions, and market participants is a task that must be addressed squarely, knowing that financial development will not proceed through shortcuts or quantum leaps. It will instead evolve in a sequence of stages as has been the experience of many developing countries. In this sequence, monetization of the economy usually constitutes the first stage. The other stages generally involve expansion of bank intermediation, securitization, and broadening the spectrum of financial instruments and intermediaries. The experience of economic development in many countries over the last two centuries shows that these stages take place in an order that is not generally predeterminable but is influenced by developments in the enterprise sector and in the regulatory and tax environments. In some countries, such as Germany, bank intermediation has been the pivot of financial development. In others, the expansion of markets for securities, such as shares and debentures, preceded the expansion of banking.

In the economies in transition, the actual sequence among these later stages will be determined eventually by the strength of the regulatory environment, the structure of taxation of different sources and uses of income, the ways and means by which public and private firms meet their capital needs, and the risk profile of banks compared with other intermediaries. Laws and regulations have to build confidence among savers and investors about the transparency of transactions, diffusion of economic information, and enforcement of contractual obligations. Taxation might promote or penalize the formation of financial savings, favor the retention of earnings within the enterprise for the purpose of reinvestment, create an incentive for investment in some financial instruments at the expense of others, and discriminate in favor of some financial intermediaries. Public firms tend to continue differing from private firms on the composition of their funding sources. Banks have to clean up their asset portfolios and achieve radical improvements in their operations before they can channel on a market base large flows of savings toward investment.

In exploring the path to financial development, the economies in transition should clarify the objectives that they intend to pursue and their order of priority. In this respect, four goals are of paramount priority: to establish a viable payment and settlement system, to
mobilize savings, to raise the efficiency of capital allocation, and to allow enterprises to reach a balanced capital structure.

The old system of separation of the payments circuits, respectively, of enterprises and households and cumbersome clearing systems cannot support the expansion of the economies in transition in which enterprises have to build a new network of relations with suppliers and customers and widen their market scope. To this end, enterprises need, among other elements, a national currency that can fulfill its function as a medium of exchange and a payment settlement system that operates rapidly throughout the domestic market. Of course, these have to be supported by a degree of stability in the currency's value because high inflation has proved to be an incentive to the substitution of national currency with a foreign currency or to barter trade.

Savings as a ratio to national income were traditionally high under the old system mainly because they were "forced" as a result of direct public intervention in enterprises' management and in the level of people's income. At a given income level, which was generally relatively low, households' decision to save was also influenced by the government by fully guaranteeing a minimum living standard to all citizens and by planning systematic shortages of consumer goods. These factors more than the return on financial assets affected households' propensity to save. After moving to a market system, these economies must find new market-based approaches to maximize savings to make it possible to fund the massive renovation of the production base that is necessary.

Likewise, once the central plan is abolished, market-oriented mechanisms need to be established to channel savings to enterprises and other users under conditions of allocative and operational efficiency. Such a function was not exercised by the financial institutions in the old regime, and although they are not structured to this end, they are nowadays the only institutions that can be called upon to fulfill this role. Any other solutions would amount to continuing the old direct interference of the authorities with the distribution of capital, leading to inefficiencies in capital use.

Another major objective of financial development, which should receive more attention than is actually given by the authorities, relates to the capital structure of nonfinancial enterprises. Public firms under the old system were mostly endowed with physical assets while they lacked their own capital base, particularly working capital. After moving to the market system, these firms are at a disadvantage vis-à-vis other firms to the extent that their net worth is insignificant, if not negative, working capital is scarce, and depen-
dence on bank borrowing is relatively high, because access to public funds has been curtailed by fiscal stabilization. Imbalances in capital structure, by raising financial risk, hamper the development of the firm, and must therefore be corrected. But this cannot be achieved unless the economy offers to firms a diversified set of funding sources that can be tapped under competitive market conditions.

Against the backdrop of these target criteria, how far have these economies progressed in approaching them? The process of financial development has been set in motion in all the economies in transition through the issuance of a long array of legal measures, but, given the difficulties of implementing them and their incompleteness, the distance from the target is still considerable. After adopting so many measures, these countries should evaluate the progress made before planning a new round of measures: such evaluation might lead to a strengthening of current strategies or to their reorientation. It is not a simple exercise to measure financial development because the quantitative indicators available for these countries are few and approximate, and descriptive indicators do not give a precise picture. Three main measures are presented: broad money/GDP and credit/GDP ratios, and the difference between bank lending rates and borrowing rates. The first two measures can be used to assess the degree of financial intermediation in the economy whereas the third could signal progress in competition and efficiency among banks.

For the four countries under consideration—the Czech Republic, Hungary, Poland, and the Slovak Republic—the evolution of these indicators between 1988 and 1992 does not yet show any clear trend toward the intensification of financial relationships. After the launching of financial reform, credit to the enterprise and household sectors declined significantly as a ratio to GDP. This contrasts with the experience of developing countries in which financial reform and liberalization are usually followed by a sharp rise in the credit ratios. In the four economies in transition, the decline might reflect the prevalence of the effect of monetary stringency, dictated by macroeconomic stabilization, over a possible growth of credit and deposits following financial liberalization. The evolution of the broad money ratio is broadly in line with that of the credit ratio except in Hungary, where a rising trend is evident. In the same period, the interest rate spread has tended to increase sharply in the four economies, indicating that the benefits of financial reform for depositors and borrowers have so far been rather limited. Such a trend seems linked to the need of banks to provision against losses in the face of an asset portfolio characterized by a high proportion of doubtful loans. In such a case, a structural factor rather than a cyclical one appears to hamper the
expansion of bank intermediation. Hence, all these indicators point to the same conclusion: that financial development is proceeding slowly.

Leaving aside these measures, progress could be assessed against the four priority objectives of financial reform. Monetization of the economy—the first goal of financial development—is still far from being completed. In the states of the former Soviet Union, the backward payment system and the rapid erosion of the value of the national currency have brought about a revival of barter trade and currency substitution. In other economies in transition, such a backwardness still impedes trade, tends to segment the national market into limited local areas, adds to business risk, and complicates the central bank’s management of liquidity in the economy. After shedding their commercial banking functions, the central banks have not yet succeeded in strengthening their traditional functions of providing a viable payment and clearing system and restoring confidence in their currencies. Of course, there are differences among these countries, with the Czech Republic and Hungary much more advanced than some states of the former Soviet Union. But overall the situation is not satisfactory and more efforts should be deployed.

As regards the mobilization of savings, in spite of the multiplication of deposit-taking institutions, the expansion of the range of financial instruments, and the rise of the return on monetary and financial assets, savings formation, including financial savings, seems driven more by precautionary considerations, given the instability of the economic and social environment, than by progress in financial development and the return on financial assets. Inflation rates remain relatively high in all these countries, except the Czech Republic, and interest rates on deposits have generally been negative in real terms. There is also anecdotal evidence that large shares of savings are kept in the form of real goods or inventory investment rather than in financial assets.

Concerning the financing of investment, improvements in the efficiency of capital allocation have been delayed by the presence of ceilings on bank credit expansion, the low degree of competition in the banking sector, the “lock-in” effect of banks being forced to continue lending to nonperforming borrowers in order to avoid large debt write-offs, and the slow pace of bank rehabilitation. Ad hoc solutions have been adopted in some countries, such as Hungary, which has established an objective for the share of credit that banks have to devote to the private sector. But these solutions tend to multiply the number of public interferences in capital allocation and do not promote efficient market-based mechanisms.
The establishment of markets for short-term securities, medium-term debt instruments, and equity is an important achievement in widening the system of financial sources. These markets are thin, rather illiquid, and have little resilience, however, and therefore they do not yet offer the enterprises sizable funding alternatives to bank credit. In particular, the modest growth of the equity market and delays in privatization have not permitted substantial adjustment of the high degree of financial leverage of the enterprise sector in funding investment expenditure. The increased share of equity in total financial assets has reflected more the gratuitous transfer of ownership rights from the government to private hands than the acquisition of new risk capital by the firms.

Overall, most of the improvement in financial structures has been made in the foundation of a two-tier banking system and the creation of the legal and regulatory framework. Conversely, progress is lagging with regard to the other objectives, especially the emergence of viable financial intermediaries in addition to the government, higher efficiency in capital allocation, and the expansion of markets for financial instruments.

How should financial development be accelerated? What triggers and sustains the expansion of the financial superstructure of the economy? So far, these economies have relied on the government to promote financial progress, but governments have been guided mostly by the urgency of finding nonmonetary means for financing fiscal deficits. The still very limited number of profitable enterprises, together with the slow pace of privatization of nonfinancial enterprises and of bank rehabilitation, have proved to be major stumbling blocks. Owing to their low profitability and public ownership, public enterprises have not been in a position to bolster the growth of sound finance following economic liberalization. Their major innovation has been in “defensive financing” by building up an unprecedented amount of arrears toward other enterprises, banks, and even the fiscal authorities. Without a viable enterprise sector, it is impossible to expect a sound financial system to emerge. The latter is ultimately the mirror image of the former.

Under these conditions, most financial intermediation has inevitably to go through the nonenterprise government sector, because this is the only sector that can provide borrowers and capital suppliers with adequate guarantees of solvency. However, this pattern tends to perpetuate the inefficiencies of the past. Therefore, an essential precondition for financial development is wide-ranging action by the government aimed at restructuring its nonfinancial firms and rehabilitating its banks and financial institutions. Hence, the appropriate
sequencing is restructuring and rehabilitation before financial development.

For nonfinancial enterprises, restructuring has to be carried out mainly through privatization, that is, by the new private owners, whereas for the few enterprises that will remain in public hands, new rules for accountability have to be fixed and enforced. For bank restructuring a solution has to be adopted urgently for the stock of bad assets in banks’ portfolios. Among the three main approaches—government bailout, write-offs, and provisioning—a combination of the first and the third seems most justified. Bank loans were granted to public firms as a substitute for the budget transfers that were due either to cover the gap in input-output pricing or to fund working capital needs or investment expenditure. Price liberalization and high inflation have sharply reduced, for the enterprises, the burden of debt that existed at the beginning of the reform process and that was due to the accumulation of past imbalances between input and output prices. Nevertheless, this has not freed public enterprises from their dependence on bank debt because the lack of equity capital and public funding and heavy operating losses owing in part to constraints on labor shedding have forced them into higher indebtedness vis-à-vis banks. It seems appropriate for the government, as the owner of these enterprises as well as of banks, to recognize its hidden liability and to take over such a burden by replacing these bad loans in banks’ portfolios with government debt. This substitution should be tied to the privatization of the debtor firm and would involve full or partial debt reduction. A similar reduction should also be applied to those few firms that will not be privatized but have to be restructured. The new government debt should be of long-term maturity and should be serviced through taxation, that is, by calling on all economic sectors to contribute to its repayment. Bank provisioning can be a complementary and secondary instrument to deal with this problem, because provisioning ultimately raises the interest rate spread and the cost of capital to enterprises. In that respect it contradicts the goal of sustaining economic growth by lowering capital costs. The possibility of write-off should be kept to a minimum, since it would lead to bankruptcy of banks and jeopardize the already fragile stability of the financial system.

These measures would eliminate or drastically reduce the stock problem but would not be enough to deal with the problem of flows stemming from the possibility of new loans to nonperforming firms. To deal with the latter, several characteristics of the banking system have to be improved, in particular through privatization and more effective bank management and supervision aimed at enforcing mini-
mum credit standards. The first aspect concerns the ownership of banks. At present, private banks control only a minor share of the banking industry. The majority is in the hands of public banks operating under outdated procedures, with inadequately skilled labor, and subject to the interference of public authorities. Bank privatization has so far been nonexistent, although plans for a very few banks have been made and are expected to be implemented. Given the long tradition of subordinating bank management to the government and its negative consequences in terms of efficiency, it is advisable to shift the majority of banking firms into private hands. Privatization should be pursued taking account of the need to increase competition and to upgrade the management.

Lack of competition is today a dominant characteristic of the banking system in these countries. Since most of the banking industry is accounted for by a few public banks, their privatization could reinforce oligopolistic behavior with deleterious effects on the cost and distribution of credit. To reduce this effect, the authorities should divide their big banks before privatizing them. Such a division raises the issue of optimal bank size or, in other words, what degree of concentration is appropriate to exploit economies of scale without permitting dominant positions. There are no generalized criteria in this respect, but it is clear that the objective is to create competition in banking services in the largest number of local market areas. Even with only a limited number of banks, it is essential that they compete throughout the entire national market and that their collusion is penalized. Of course, the current ceilings on credit expansion and interest rates are incompatible with the objective of greater competition. But the present weaknesses in bank lending practice and in monetary policy conduct allow only a gradual phasing-out of these ceilings.

Upgrading management is a task that requires large investment in training and building up experience, and only the support of major banks from the most developed countries can help fulfill this task in a reasonably short time. It is therefore important that these foreign banks be called upon to participate in the privatization of the public banks in the economies in transition.

The ownership issue has another dimension that is equally critical for a well-functioning banking system: the ownership interrelationship between banks and nonfinancial enterprises. Should banks be owned or controlled directly or indirectly by such enterprises, and vice versa should they own these firms entirely or partially? Both cases are numerous in the economies in transition. For instance, all Central and East European countries except Hungary have opted for
the model of a universal bank. In the current early phase of financial development, following a long tradition of bank lending decisions that are constrained by enterprise demands and in the context of weak profitability of firms, it is not appropriate to allow such a close ownership link. These links would mix lending risk with business risk, leading to a situation of moral hazard for the stability of the banking system. The German model of the universal bank cannot be simply copied by these economies because it reflects a historical experience that has nothing in common with that of central planning in the economies in transition. Banks should instead focus on the objective of maximization of financial savings by assigning priority to the protection of the interests of depositors. In this perspective, it would help if the authorities placed statutory percentage limits on the banks’ exposure vis-à-vis any individual borrower and if they monitored the total exposure of each borrower vis-à-vis the whole banking system by establishing a pool of data on enterprises’ total exposure. Information on total bank exposure vis-à-vis each borrower should be circulated throughout the banking system. Only at a later stage, when these economies have matured, does the shift to the universal bank model seem to involve lower risks than at present.

In considering limitations on the range of assets that banks can hold, the question arises whether these economies should aim at a model of bank specialization, with different groups of institutions fulfilling different banking functions. This approach would not constitute a break with the past, as in the old system a division of labor was explicitly planned, with some banks operating only for the collection of savings and other banks specializing in lending to a specific sector of the economy or in carrying out only certain banking transactions. It is doubtful whether functional specialization fosters the mobilization of financial savings and channels a larger volume of funds to the most profitable sectors or enterprises. In contrast, it is clear that lending specialization tends to a concentration of risks and to a stretching of maturity transformation between sources and uses of funds. As financial development requires that stability of the banking system be the priority, functional specialization should be discouraged. Moreover, the old practice of specialized intermediaries providing subsidized lending to priority sectors should be discontinued, since it gives rise to distortions and inefficiencies in use of capital as well as in intensity of investment of capital. In contrast, a specialization implying a separation by asset and liability maturity, as well as by risk profile, between commercial banks, medium- and long-term credit institutions, and investment banks seems justified by its risk-containment effect. It would determine a matching of
maturities between assets and liabilities in the balance sheets of the various financial intermediaries and a clear division of risks, with a coherent reflection of these differences in the risk-adjusted rates of return on different types of assets.

The improvement of the structural framework of the banking system serves to build a stable foundation for financial growth, but it is not sufficient to promote efficiency in capital allocation and a balanced capital structure among nonfinancial enterprises. The experience of some developing countries (Chile and Argentina) shows that financial reform and liberalization are not likely to eliminate, at least in the initial period, the preferential access to credit that the old borrowers used to enjoy. This applies equally to the economies in transition, as banks have better information about old firms than new firms, have limited capacity to scrutinize creditworthiness, and can apply nonprice rationing of credit within given ceilings to credit expansion because of the better guarantees offered by public firms. Hence, in the bank-dominated financial system that characterizes these economies, new and more profitable firms, and particularly private enterprises, tend to be at a comparative disadvantage in obtaining bank financing, and improvements toward an efficient allocation of capital could be delayed. A sign of this problem in some Central and East European countries is given by statistical evidence that seems to indicate that the private sector receives a share of credit far below its contribution to GDP formation.

To provide the private sector with a wide range of funding sources and investment opportunities, markets for financial instruments, particularly secondary markets, have to be developed in parallel with the strengthening of banking structures. In the choice between banks and markets, a sequencing that assigns priority to bank intermediation over financial market development does not seem to be the only viable solution for these economies. Historically, securitization has been a component of the early phases of financial development in several developing and industrial countries even before the share of banks' assets became preponderant in the total of financial assets. In the economies in transition, securitization can stimulate the growth not only of financial markets but also of nonbank financial institutions. These institutions are also an important factor in improving the monitoring of the evolution of enterprises. It seems advisable, therefore, to pursue a degree of complementarity in development between banks and financial markets, knowing, however, that the former, through their payment-settlement systems and their credit function, underpin the good functioning of the latter. Banks are also particularly important in sustaining secondary markets, especially in a
period characterized by the paucity of market makers. If economic development in these countries calls for financial widening through the expansion of financial markets, the same cannot be said for financial deepening. Futures, derivatives, hedging instruments, and the like are not essential for economies that are still developing, and they might even divert savings from more productive uses for the economy as a whole.

Besides all these framework conditions, financial development in such economies also depends on a number of policy actions aimed at eliminating nonregulatory impediments and at creating incentives. A major impediment is macroeconomic instability because it diverts savings from financial assets toward real assets. Fiscal and monetary discipline at the same time influences and is influenced by the expansion of the financial infrastructure. The presence of a wide range of financial institutions, instruments, and markets helps both to carry out monetary policy and to buffer the impact of monetary measures on the real economy. Furthermore, it reduces the scope for continuing direct intervention by the monetary authorities in the creation and allocation of credit.

Another impediment is represented by the lack of transparency of information on the state of borrowers, banks, and financial intermediaries. Greater efforts have to be deployed by these countries in setting accounting standards for nonfinancial enterprises and monitoring requirements and rules for information disclosure. Similarly, bank supervision needs strengthening, not in legislation that has already largely been established, but in enforcing prudential regulations. Gaps in the implementation of bank supervision are still wide because of limitations on the availability of skilled human resources.

Other impediments are related to the tendency of the monetary authorities to make it easier and less costly to finance the budget deficit by playing a dominant role in the financial circuit. Credit controls, constraints on banks' asset portfolios, and expansion of markets for government securities through tax preferences and other inducements could be used to this effect, and in some economies in transition they have already been used. They ultimately tend to distort financial development by crowding out the private sector that should instead be the engine of renovation of these economies. Authorities should therefore aim at balancing preferences and incentives and resist the tendency developed under the old system to grant hidden financial privileges to some public borrowers. A case could even be made that incentives are needed to facilitate the financing of private enterprises. Such incentives could be justified if they cushioned part of the impact that the relatively higher risk profile, compared with
public borrowers, would have on the availability and cost of capital for private firms. For instance, some incentives for issuers of and investors in equity should be envisaged.

To sum up, the growth of market economies in the formerly centrally planned countries is critically linked to the construction of financial infrastructures. These are not the automatic outcome of deregulation, or reregulation, or some legal act. Their growth requires three elements to be in place: (1) the existence of distinct saving and investment units that operate in a competitive context; (2) the emergence of sound intermediaries; and (3) the framework conditions under which intermediaries and markets should operate. On the basis of these elements and through the interaction between government, enterprises, households, and financial institutions, bank and financial intermediation can grow and be instrumental in the development of these economies. To this end, the responsibility of the government is not fulfilled just by issuing and enforcing good financial laws and regulations. It also has to complete two crucial tasks: to restructure public enterprises mainly through privatization and to promote the private sector. These reforming countries should be aware of the fact that, ultimately, the soundness of their financial system is based on the health of their real economy.

Bibliography


List of Participants*

Lew Alexander
U.S. Federal Reserve Board

Jeffrey Anderson
Institute for International Finance

Wayne Angell
Board of Governors, U.S. Federal Reserve

Andrew Atkeson
University of Chicago

Guillermo Barnes
Ministry of Finance, Mexico

Christopher Beshouri
Office of the U.S. Comptroller of the Currency

Nancy Birdsall
World Bank

Hans Blommestein
Organization for Economic Cooperation and Development

Guillermo Calvo
International Monetary Fund

Stephen Canner
U.S. Treasury

Gerard Caprio
World Bank

Joshua Charap
European Bank for Reconstruction and Development

Fabrizio Coricelli
World Bank

Daniel Daianu
National Bank of Romania

Mikhail Dmitriev
Russian Bank for Reconstruction and Development

Rudiger Dornbusch
Massachusetts Institute of Technology

Jacob Dreyer
Investment Company Institute

Amitai Etzioni
George Washington University

Stanley Fischer
Massachusetts Institute of Technology

David Folkerts-Landau
International Monetary Fund

Richard Freeman
U.S. Federal Reserve Board

Steven Fries
International Monetary Fund

Peter Garber
International Monetary Fund and Brown University

Emil Ghizari
National Bank of Romania

Linda Goldberg
New York University

Marvin Goodfriend
Federal Reserve Bank of Richmond

Manuel Guisán
International Monetary Fund

Diana Hancock
U.S. Federal Reserve Board

David Humphrey
Florida State University

Karen Johnson
U.S. Federal Reserve Board

Barry Ickes
Pennsylvania State University

George Kaufman
Loyola University

Stefan Kawalec
Ministry of Finance, Poland

Patrick Kehoe
University of Pennsylvania

Patricia Kellogg
George Washington University

Linda Koenig
International Monetary Fund

357
List of Participants

Brian Kurz
U.S. Agency for International Development

Alexander Khandruyev
Russian Central Bank

Laurie Landy
U.S. Agency for International Development

Timothy Lane
International Monetary Fund

Ross Levine
World Bank

Millard Long
World Bank

Jeffrey Marquardt
U.S. Federal Reserve Board

Diana McNaughton
World Bank

Michael Mussa
International Monetary Fund

Tome Nenovski
National Bank of Macedonia

Daniel Nolle
Office of the U.S. Comptroller of the Currency

Dimitri Papadimitriou
Jerome Levy Institute

Mihajlo Petkoski
National Bank of Macedonia

Ronnie Phillips
Jerome Levy Institute

Ian Plenderleith
Bank of England

Jiri Pospisil
Czech National Bank

Olga Radzyner
Austrian National Bank

Lex Rieffel
Brookings Institution

Liliana Rojas-Suarez
International Monetary Fund

Jacek Kostowski
University of London

Kandi Ryterman
World Bank

David Scott
World Bank

Marcelo Selowsky
World Bank

Pieter Stek
Ministry of Finance, Netherlands

Samuel Talley
World Bank

Imre Tarafas
National Bank of Hungary

Kevin Villani
Consultant, World Bank

Michael Spencer
International Monetary Fund

Bruce Summers
U.S. Federal Reserve Board

Georg Winckler
University of Vienna

Shahid Yusuf
World Bank

Salvatore Zecchini
Organization for Economic Cooperation and Development

*The affiliations listed were those in effect at the time of the conference (June 1993).*