Banking Soundness and Monetary Policy

Issues and Experiences in the Global Economy

Editors
Charles Enoch
John H. Green

International Monetary Fund
Banking Soundness and Monetary Policy

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Papers presented at the seventh seminar on central banking

IMF Institute and
Monetary and Exchange Affairs Department
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While there is now wide consensus that price stability should be the primary concern of a central bank, there is also increasing awareness that this price stability—and indeed, more generally, the macroeconomic position of a country—may be jeopardized by an unsound banking system. An unsound banking system could undermine monetary and fiscal policies, and could fail to provide the intermediation functions that are integral for the achievement of economic development. Thus central bankers have been very much involved in recent years in devising structures and procedures to seek to ensure that the banking systems in their countries are sound. This work is being undertaken against a background where the banking sector itself is in many countries changing rapidly, as a result of domestic deregulation, the growth of conglomerates involving both banks and nonbanking entities within the same institution, and the widespread liberalization of international capital flows.

This volume brings together contributions on a wide variety of banking soundness issues. It includes the papers presented at the Seventh Seminar on Central Banking organized by the International Monetary Fund and held in Washington, D.C. on January 27–31, 1997, as well as discussants' comments on these papers, and some of the key points raised in the discussions during the seminar. The contributions range from papers focusing on theoretical aspects of ensuring banking system soundness to others presenting practical lessons from individual country experiences. They cover advanced, developing, and transition economies. The seminar benefited from the participation of senior central bankers and banking supervisors from around forty countries, as well as the Bank for International Settlements and the Basle Committee, and also involved presentations from staff of the IMF and the World Bank. As on the occasions of the previous seminars in this series, the presentations and discussions were lively and productive. A number of useful lessons were learned which are likely to have widespread applicability. We are grateful to all those, both inside and outside the IMF, who contributed to the success of the seminar.

MICHEL CAMDESSUS
Managing Director
International Monetary Fund
Preface

The IMF Central Banking Seminars have been organized roughly every two years by the Monetary and Exchange Affairs Department (and its predecessor, the Central Banking Department) together with the IMF Institute. They have provided a useful forum for wide-ranging discussions on upcoming central banking and monetary management issues among senior practitioners from the membership of the IMF, as well as IMF staff. As the international economy became increasingly integrated, and as the membership of the IMF reached virtual universality, the focus of these seminars has been directed to topics of direct relevance to central bankers in all regions of the world. In this context, the issue of banking soundness in a global economy clearly represents a subject particularly suitable for this seminar, the seventh in the series. As indication of the appropriateness of this seminar theme is the growing amount of time and energy that central bankers in all parts of the world have had to devote to banking issues in recent years, and the consequent recognition of the interaction between banking soundness and effective monetary management, both nationally and internationally.

A subject of relevance in the context of banking soundness questions is banking supervision, which in some countries is a direct central bank responsibility, while in others it is vested in a separate supervisory agency. For this reason, on this occasion, in addition to gathering many central bankers as speakers and seminar participants, there have also been officials from some national supervisory institutions or from supervisory groups, like the Basle Committee on Banking Supervision, as well as from international institutions like the Bank for International Settlements and the World Bank. This additional diversity in speakers and participants added an extra dimension to the seminar, thus providing opportunities for interaction that were particularly productive and contributed strongly to the depth of the discussions.

The issues examined are of considerable interest to all involved in monetary or banking issues. Banking sector problems have affected many countries in the IMF membership, and measures to remedy these problems as well as to prevent their recurrence will deeply concern central bankers and policy makers more widely for some time to come. This volume is intended to disseminate the presentations and discussions of the seminar to this wider audience.
In addition to the authors, many in the IMF have contributed to the successful production of this book. In particular, I would wish to note the contributions of Charles Enoch and John H. Green in organizing the seminar and editing the book, as well as the editorial assistance provided by Natalie Baumer, Rozlyn Coleman, and Juanita Roushdy of the External Relations Department. In addition, this volume could not have been completed without the secretarial support provided by Amelia de Lucio, Funke Orimoloye, and Janet Stanford.

MANUEL GUAMÁN

Director
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## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>v</td>
</tr>
<tr>
<td><em>Michel Camdessus</em></td>
<td></td>
</tr>
<tr>
<td>Preface</td>
<td>vii</td>
</tr>
<tr>
<td><em>Manuel Guitián</em></td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td><em>Charles Enoch and John H. Green</em></td>
<td></td>
</tr>
<tr>
<td><strong>I Banking Soundness and the Macroeconomy</strong></td>
<td></td>
</tr>
<tr>
<td>1 Introductory Remarks</td>
<td>19</td>
</tr>
<tr>
<td><em>Michel Camdessus</em></td>
<td></td>
</tr>
<tr>
<td>2 Banking Soundness and the Role of the Fund</td>
<td>22</td>
</tr>
<tr>
<td><em>Stanley Fischer</em></td>
<td></td>
</tr>
<tr>
<td>Comment</td>
<td>35</td>
</tr>
<tr>
<td><em>Alexander Khandruyev</em></td>
<td></td>
</tr>
<tr>
<td>Discussion</td>
<td>40</td>
</tr>
<tr>
<td>3 Banking Soundness: The Other Dimension of Monetary Policy</td>
<td>41</td>
</tr>
<tr>
<td><em>Manuel Guitián</em></td>
<td></td>
</tr>
<tr>
<td>Comment</td>
<td>63</td>
</tr>
<tr>
<td><em>Jørgen Ovi</em></td>
<td></td>
</tr>
<tr>
<td>Discussion</td>
<td>68</td>
</tr>
<tr>
<td><strong>II Banking Soundness and Global Capital Markets</strong></td>
<td></td>
</tr>
<tr>
<td>4 Capital Mobility and Its Impact on the Operations of a Central Bank</td>
<td>71</td>
</tr>
<tr>
<td><em>Jacob A. Frenkel</em></td>
<td></td>
</tr>
<tr>
<td>Comment</td>
<td>84</td>
</tr>
<tr>
<td><em>Peter J. Quirk</em></td>
<td></td>
</tr>
<tr>
<td>5 Global Capital Markets and the Stability of Banking and Financial Systems</td>
<td>89</td>
</tr>
<tr>
<td><em>Andrew Crockett</em></td>
<td></td>
</tr>
<tr>
<td>Comment</td>
<td>106</td>
</tr>
<tr>
<td><em>William E. Alexander</em></td>
<td></td>
</tr>
<tr>
<td>Discussion</td>
<td>110</td>
</tr>
</tbody>
</table>
III Prudential Standards and Banking System Soundness

6 Evolving Supervisory Standards in Advanced Market Economies
   Tommaso Padoa-Schioppa 115
   Comment
   Hassanali Mehran 125
   Discussion 129

7 Applying Basle Standards in Developing and Transition Economies
   Frederik C. Musch 130
   Comments
   Pierre Dhonte 140
   Luis M. Valdivieso 142
   Discussion 146

8 Tax Treatment of Loan Losses of Banks
   Julio Escolano 148
   Comment
   Claudia Dziobek 183
   Discussion 187

IV The Role of the Central Bank During Problems of Banking Soundness

9 Role of the Central Bank During Problems of Bank Soundness: Japan’s Experience
   Akira Nagashima 191
   Comment
   Bijan B. Aghevli 223

10 Problems of Bank Soundness: Mexico’s Recent Experience
   Miguel Mancera 228
   Comments
   Brian C. Stuart 242
   Tomás J. T. Baliño 244
   Discussion 247

V Financial Innovation and Banking Soundness

11 Are Banks Still Special?
   E. A. J. George 251
   Comment
   Edward W. Kelley, Jr. 263
   Discussion 264
## Contents

### 12 How to Keep the Banking System Sound in a Period of Change
*Carl-Johan Lindgren*
- Comment
*Wang Jun*
- Comment

### 13 Derivative Markets and Financial System Soundness
*David Folkerts-Landau and Peter M. Garber*
- Comment
*Andrew L. T. Sheng*
- Discussion

### VI The Banking Sector and Structural Change: Case Studies

#### 14 The Banking Sector in a Transition Economy: The Case of Poland
*Hanna Gronkiewicz-Waltz*
- Comment
*Gerard Bélanger*
- Discussion

#### 15 The Banking Sector in an Emerging Market: The Case of Indonesia
*J. Soedradjad Djiwandono*
- Comments
*Christopher Browne*
- Discussion

### VII Banking Soundness: Official Action and Market Discipline

#### 16 Banking Soundness and the Role of the Market
*Donald T. Brash*
- Comment
*Malcolm D. Knight*
- Discussion

#### 17 Prudential Supervision and Globalization of the Banking Sector: A National Supervisor’s View
*Wolfgang Artopoeus*
- Comment
*S. P. Talwar*
- Discussion

#### 18 The Supervisory Role of the Central Bank
*Pierre Duquesne*
- Comment
*Patrick T. Downes*
- Discussion
VIII Responding to Unsoundness in the Banking System

19 Loan Loss Recoveries and Debt Resolution Agencies: The Swedish Experience
   Stefan Ingves and Göran Lind 421
   Comment
   Armando M. Tetangco, Jr 443
   Discussion 448

20 Governance Issues and Banking System Soundness
   Richard P. Roulier 450

21 Depositor Protection and Banking Soundness
   Gillian Garcia 464
   Comment
   Thomas N. Kibua 474

IX Bank Restructuring

22 Restructuring the Banking Sector: The Case of the Czech Republic
   Josef Tošovský 481
   Comments
   Pedro Pou 495
   Marko Škreb 504
   Discussion 513

X Conclusions

23 Bank Soundness in a Global Setting: Main Themes and Policy
   Conclusions
   Manuel Guitián 517

XI Luncheon Addresses

24 International Competition: Should We Harmonize Our National
   Regulatory Systems?
   Susan M. Phillips 527

25 The Challenges of a Sound Banking System
   Michel Camdessus 583

List of Participants 540
Introduction

CHARLES A. Enoch AND JOHN H. GREEN

The Seventh Central Banking Seminar held from January 27–31, 1997, brought together central bank governors, deputy governors, and senior bank supervisors from some 40 countries representing industrial, transition, and developing economies. The present seminar was the latest in a series sponsored jointly by the Institute of the IMF and the Monetary and Exchange Affairs Department (MAE). The series provides a gathering point, roughly every two years, for the policy-makers and senior practitioners who face the day-to-day challenges in formulating and implementing monetary policy to discuss their experiences and the latest research in their fields of responsibility. On some occasions, the seminar has focused on central bank issues in general; on other occasions, it has concentrated in one particular area of central bank concern. The present seminar was of the latter form. Issues of banking soundness have become so pervasive in recent years, and the lessons learned from experiences in handling them so important, that banking soundness clearly merited selection as the topic for this seminar. But the usefulness of the seminar would be much reduced if it did not focus also on the wider economic environment within which policy makers are addressing the issues of banking soundness—particularly, an environment increasingly integrated across both sectors and countries.

In his opening remarks to the participants, IMF Managing Director Michel Camdessus observed that financial market liberalization and the resulting unprecedented growth of international capital markets—in short globalization—have had a major impact on the conduct of monetary policy and of macroeconomic policies more generally. The efficiency gains that follow from a more market-based allocation of capital have brought benefits to both source and recipient countries.
At the same time, however, the growing levels of capital flows have placed increasing demands on the private sector institutions which intermediate them. Equally important are the corresponding demands on the public sector institutions responsible for stability in the financial sector and for monetary policies in general.

The importance of addressing these challenges was put in context by First Deputy Managing Director Stanley Fischer. During the past ten years, well over one-half of IMF members have experienced significant banking problems, affecting countries in every geographic region and at all levels of economic development. Direct costs—often borne by the government budget—exceeded 10 percent of GDP in some cases, and indirect costs surfaced in slower economic growth, higher inflation, and often exchange rate crises. The crisis in Mexico in 1995, which was discussed in detail by Miguel Mancera, Governor of the Bank of Mexico, was seen by many participants in the seminar as the wake-up call of the importance of the banking sector to the macroeconomy. There is general agreement with the proposition that, while most economic emergencies do not originate in the banking sector, the weaker the banks are the more likely an adverse shock elsewhere will result in a banking crisis. Such a crisis will add to overall economic weakness and make it more difficult and costly to resolve. Thus, there is a need to address banking soundness issues in order to preserve the authorities’ macroeconomic objectives. Addressing these issues also must be at an international level, because globalization can lead to contagion of banking sector problems across international boundaries. Thus, addressing banking soundness requires also harmonization of banking standards and coordination and collaboration among those who apply them. Andrew Crockett, President of the Bank for International Settlements, reinforced the importance of the international dimension of handling banking sector issues, highlighting the enormous volumes of international banking business carried out each day in the present liberalized global economy.

The remainder of this overview is organized as follows. The next sections summarize some of the theoretical issues pertaining to banking soundness discussed at the seminar. These include the interaction between price stability and banking soundness; the two dimensions of monetary policy; the critical elements for ensuring a sound banking system; and the need for harmonization of banking standards, especially in the international context. Then the country experiences in the handling of banking sector issues are summarized. This is followed by the principal themes of the seminar and then a few brief concluding remarks.
Banking Soundness and Monetary Policies

In his presentation at the beginning of the seminar, MAE Director Manuel Guittian laid out the theoretical foundations for analyzing banking soundness, arguing that banking soundness was an important dimension of monetary policy. It is widely recognized that a sound banking system is beneficial to economic prosperity and the transmission of monetary policy to the real economy. Indeed, in this sense, a sound banking system has many aspects of a public good, and therefore some degree of official involvement is justified. A "pure" market solution will lead to an underprovision of sound banking. In the past, banking soundness as a monetary policy objective had been overshadowed by the primary focus of monetary policymakers on managing monetary policy to achieve price stability. Widespread banking sector problems in recent years have emphasized also the central bank’s responsibility regarding the banking system; perhaps policymakers are now able to devote more time to it because of the progress made toward price stability in many countries. Bank of Italy Deputy Governor Tomasso Padoa-Schioppa added an historical perspective to these discussions: central banks were originally organized to facilitate a payments system, later to maintain the soundness of the banking system, and only recently was monetary policy added to the central bank’s responsibilities.

An important assumption underlying the bank soundness as a public good argument is that banks are in some way special and therefore warrant special attention relative to other financial institutions. Given that many nonbank financial institutions are now providing many of the services that were formerly provided exclusively by banks, this raises the question, whether banks are indeed still special. Bank of England Governor Eddie George addressed this question and concluded that, while there has been some erosion in their "specialness," banks do remain special in a number of important regards—they are the repository of the economy’s immediate liquidity, they form the backbone of the payments system, and their assets and liabilities are inherently mismatched in a maturity sense. Mr. George pointed out that this last characteristic makes them particularly vulnerable to systemic risk. Thus, for a country to benefit from the unique functions of banks, special attention is required.

In discussing the linkages between the price stability and the banking system soundness objectives of monetary policy, participants agreed that these were mutually dependent. As outlined above, a sound economy depends on the banking system and the banking system in turn relies on a healthy economy in the sense that even sound
banks can be pushed into crisis with a sufficiently large macroeconomic shock. From the policy implementation perspective, there can be conflict in the short term between the two objectives because, for example, a tight monetary policy may put banks under pressure, while central bank support lending to a commercial bank will expand the money supply and thus impact price stability. Manuel Guitián downplayed this potential conflict and suggested that it be seen as an intertemporal tradeoff: the choice between price stability today—strict pursuit of this goal without regard to the consequences for the banking sector—versus price stability tomorrow—explicit concern for the macroeconomic consequences of a systemic failure.

While conference participants concurred on the need to address banking soundness at the official level, there were a range of views on how it should be addressed and by whom. Both questions involve moral hazard, that is shifts in incentives that affect the risk-taking decisions of bankers and their depositors. If a bank manager knows that the central bank will step in should the bank become insolvent, he may take additional risks with the bank's investment portfolio. Similarly, a depositor, knowing that he will be protected if his bank fails, will disregard risk when choosing a bank. This is the essence of the dilemma of handling the banking sector during the seminar. Banking is a public good, and therefore some official involvement is justified; however, this involvement can distort private incentives and raise the risks that the banking sector becomes unsound. Much of the discussion on handling the banking sector during the seminar was aimed at devising principles and modalities for public involvement while minimizing the moral hazard effects that this involvement might provoke.

A Three-Pillar Paradigm for Banking Soundness

Manuel Guitián proposed a three-pillar approach to banking soundness, one involving official oversight, internal governance, and market discipline. This approach reflects the view that supervision alone cannot keep pace with the demands from liberalization, globalization, and technological advances in financial instruments; thus supervision must be complemented through a mix of internal and external financial discipline. By including internal governance, the approach incorporates the view that banks themselves are best placed to manage their portfolios and maintain good management practices. The inclusion of market discipline reflects the fact that in the absence of competitive markets—and the penalties resulting from failure in competitive markets—there will be inadequate incentives for bank owners, managers,
and customers to make appropriate financial decisions: moral hazard effects will work to undermine banking soundness.

**Prudential Standards**

Wolfgang Artopeous, President of the German Federal Office of Banking Supervision, argued that reliance on quantitative prudential standards and high capital ratios as a guarantee of banking safety was no longer sufficient. From his perspective as a national supervisor, competition and the resulting erosion of profits (or monopoly rents), together with the development of sophisticated risk management techniques, have rendered uniform quantitative criteria increasingly obsolete. Such criteria can no longer be refined in line with the demands of the new risk management techniques practiced at leading banks. Their role will increasingly be confined to use as rough indicators of capital adequacy and a means of dampening risk expansion.

From this perspective, recent supervisory moves to allow banks to use their internal risk management models to calculate the capital needed to back up their portfolio risk represent a fundamental change of approach—quite distinct from the traditional approach, which rests on fixed weighting of risks in capital adequacy calculations. This new approach is in line with the three-pillar model discussed above in that it places increased reliance on internal procedures—governance—while maintaining meaningful official oversight. The new approach will require ever-greater sophistication on the part of the supervisor so that state-of-the-art risk management models in use in the banking sector can be assessed and compared, and unacceptable levels of risk determined.

Frederik Musch, Secretary General of the Basle Committee, also stressed the dynamic evolutionary nature of the supervisory framework. The Basle Committee guidelines and their application are intended to be flexible, to change over time, and to vary with country circumstances. While minimum capital standards were intended to be harmonized across countries experiencing similar conditions, specific quantitative limits have been agreed on for only a few categories of risk management. Thus there remains room for national discretion in the setting of standards in the remaining areas, for example, exposure limits as well as classification and provisionary standards on nonperforming loans.

While Mr. Musch highlighted the need for flexibility, he also brought out the importance of a common framework. In particular, he observed that the Basle Committee approach on capital requirements and lending limits had been adopted in 90 percent of a sample survey
of 140 countries. He pointed out that it did not suffice to say that in some countries there were no derivatives so these developments were irrelevant. It was likely at a minimum that a branch of a local bank was undertaking such business in London, or was paying another bank to do so on its behalf. Pierre Dhonte, Deputy Director in the IMF African Department, concurred on the importance of international standards. If banks in Africa are to participate in globalization, they must follow internationally accepted practices such as those determined by the Basle Committee. However, he argued, these standards must be adapted to reflect local circumstances. For instance, countries in Africa are subject to larger macroeconomic shocks than G-10 countries, and consequently banks in these countries must maintain tighter prudential standards. Also, in the risk assessment area, local conditions may warrant different weighting from that adopted in advanced industrial economies: in some cases, governments have fallen into arrears, or have very high debt burdens, and therefore their debts should not necessarily carry a zero risk weight.

Hassanali Mehran (Senior Advisor, MAE) pointed out that market-friendly supervision was not friendly supervision. He stressed also that enforcing a bank failure could be seen sometimes as a supervision success, not a sign of weakness. Wan Jun (People’s Bank of China) drew a medical analogy: like a good doctor, even a good supervisor could not save all the patients.

Market Discipline

Donald Brash, Governor of the Reserve Bank of New Zealand, presented the case for relying essentially entirely on market discipline. New Zealand undertook an extensive review of the options for banking supervision and in 1996 put in place a system radically different from that conventionally practiced. The Reserve Bank review had identified a number of problems with conventional supervision arrangements. These included (1) an insufficient regard for compliance costs and regulatory distortions caused by regulation and supervision; (2) the risk to taxpayers from a situation where the regulator has exclusive information on bank finances and hence may be thought responsible for losses to depositors and other creditors (moral hazard); and (3) the inherent limits to the effectiveness of conventional supervision; in particular, the backward-looking nature of the supervision, as evidenced by the fact that many countries following the conventional approach have had banking sector problems.

The new New Zealand approach rests on the commercial banks making extensive public disclosure of their financial position. By
making greater use of market forces in enforcing oversight on the banks, the Reserve Bank hopes to reduce the responsibility of the authorities, and correspondingly to increase that of bank owners and to some extent depositors. Market participants, supplied with reliable information should be able to make an informed judgment about each bank which will provide stronger financial surveillance than would official oversight alone. The Reserve Bank now carries out its remaining inspection duties using publicly available data, and thus may be considered to have less of an obligation—both implicit and explicit—to support a failing institution than is the case of supervisors in other countries.

Reliance on the market, however, may not work in all cases. Mr. Brash accepted that reliance on market discipline was likely to be effective in New Zealand because of the limited role of the official sector: banks are privately owned and there is no deposit insurance.

MAE Deputy Director Malcolm Knight also pointed out that all major banks in New Zealand are foreign-owned, and that their home supervisors continue to stand behind them. Also, the new regime has not yet been tested: there have been no bank failures since the regime’s inception in 1996. The effectiveness of market forces is predicated on a sound financial infrastructure; for example, the existence of strong accounting practices and legal frameworks that focus directors’ attention on their responsibilities, and a financial press that can analyze bank data for the public to help them in choosing a deposit institution.

**Internal Governance**

Many of the seminar participants touched on the role for internal governance in bank supervision. Mr. Brash put emphasis on bank directors’ responsibilities. Both he and Mr. Artopeous made the point that conventional supervision by regulation and inspection provides only snapshot information of a bank’s financial condition, and in today’s world this is not sufficient. Balance sheets can change so quickly (for example, using derivative instruments) that severe problems can arise almost immediately after a conventional inspection. In addition, bank balance sheets are becoming increasingly complex, and official inspectors may not be able to keep up with the latest financial technology.

A more forward-looking approach could address these concerns. Specifically, there should be emphasis on a bank’s ability to manage risk using its own internal models. Governance procedures would ensure that banks’ policies would be in line with the prescriptions of
these risk models by emphasizing bank managers’ responsibilities for their banks’ performance. Richard Roulier of the World Bank provided a comprehensive assessment of governance issues.

Strengthened internal governance would also address the risk of losses from fraud. The Barings failure was discussed in this context; Mr. George made the point that the Bank of England decided against a rescue for Barings because it was clear that Barings’ problem stemmed from an internal management failure specific to the bank, and that there was therefore no systemic risk to the financial system. To offer support to Barings in these circumstances would have caused serious moral hazard implications. Conversely, the decision not to support Barings has strengthened management controls in banking in Britain and beyond.

**Responsibility for Ensuring Bank Soundness**

An important, ongoing discussion, surfacing a number of times during the seminar, was whether the central bank itself should be responsible for banking supervision. The decision on this issue is not necessarily “all or nothing.” Even where the central bank does not have formal responsibility for supervision, it clearly retains an interest in banking soundness and hence is still likely to be involved in some way in the supervisory and surveillance process. The broad choice between the central bank and an independent supervisory agency to perform banking supervision mainly centers on the trade-off between, on the one side, the efficiency gained by having macroeconomic monetary policy decisions and banking soundness issues under one roof and, on the other side, the risk of conflict of interest when the institution responsible for monetary policy is also concerned about the effects of raising interest rates on the health of the banking sector and hence on perceptions of its success in its role as banking supervisor.

Pierre Duquesne, Secretary General of the French Banking Commission, concluded in his paper that economic theory demonstrates no clear-cut advantage for either approach. The arguments for linking the two responsibilities through a common institutional framework recognize that there is a two way relationship between the price stability and banking system soundness objectives of monetary policy. There may also be operational advantages, since financial system expertise can be concentrated in one institution, the central bank. In this context, Mr. Duquesne observed that in practice some mixture of the two approaches is common. For example, in France, supervisory responsibility lies with the Banking Commission, but it is closely
linked to the Bank of France. In Germany, where supervisory responsibility is formally allocated to distinct supervisory agencies, Bundesbank staff and resources are nevertheless used for much of the supervisory effort.

**Harmonization**

During the seminar discussion of regulatory harmonization cut across two lines: harmonization across national borders and across sectors. In her luncheon address, Susan Phillips, Governor of the U.S. Federal Reserve Board, framed the topic in terms of coordinating goals—a healthy banking and financial system that can compete safely on a nondiscriminatory basis—and overall philosophies, in particular market-based incentive structures. In short, regulators should strive to promote sound risk management practices through market forces rather than through coordination of specific laws and regulations. In this way, rules are likely to be similar and compatible, but with enough flexibility to account for differences across sectoral and geographical boundaries. Within this framework, supervisors can craft regulations that are consistent with international standards, but that also accommodate local needs.

In this approach, and relying on a bank’s own risk management process, it is clear that no prespecified formula can be applied globally, and that flexibility is important for successful harmonization. Market discipline and the banks’ internal incentives—internal governance—are critical, but the success of such an approach will depend on disclosure. The public must have reliable and timely information about the risk exposure of their banks. Mr. Musch also emphasized that harmonization only covered a very limited set of standards. In other areas, best practices had been established. Deposit insurance had so far been left to the national authorities.

Mr. Padoa-Schioppa pointed out the limited extent of the harmonization so far achieved between banking and nonbanking supervision. For instance, the Concordat was not yet accepted for supervision of subsidiaries of securities houses. This could provide an easy way for financial conglomerates to avoid supervision.

**Role of the IMF and International Organizations**

Progress in harmonization can come about both through bilateral discussions, or through multilateral organizations, as demonstrated by the work of the BIS and the Basle Committee on Banking Supervision
over the past twenty years. More recently, other international organizations have become involved in helping to promote stability in banking systems. Mr. Camdessus, in his opening and closing remarks, observed in this context that the specific roles of the respective organizations might be regarded as "work in progress." There are ongoing initiatives by the G-10, the Basle Committee, and the International Organization of Securities Commissions (IOSCO) regarding banking supervision in emerging market economies. Mr. Musch observed that the Basle Committee was heavily involved in helping countries beyond the G-10 implement the committee's recommendations on capital standards either through working directly with the national institutions or through the regional organizations that have been established in recent years and now cover the great majority of countries. For its own part, the IMF will build on its particular areas of expertise and its universal membership. It will of course coordinate its own efforts with these and other institutions. Thus it will focus particularly on the relationship between a sound banking—or financial—system and an effective monetary and fiscal policy capability. It is intensifying its surveillance, first of banking systems and later of other financial intermediaries as part of the regular Article IV consultation process. Where appropriate, it is including measures designed to foster bank soundness in program conditionality. Mr. Khandruyev, Deputy Governor, Central Bank of Russia, welcomed the prospective involvement of the IMF in these areas.

Maintaining a Sound Banking System: Practical Applications

Carl-Johan Lindgren, Assistant Director, Monetary and Exchange Affairs Department, makes the transition in his paper from the theoretical considerations underlying the three-pillar strategy for banking soundness to practical recommendations for making or keeping a banking system sound. The paper's main conclusions, summarized below, serve as a backdrop to the specific case studies presented.

Most bank failures can be traced to poor management that leads to credit losses, a portfolio that does not produce sufficient income, or in some cases losses through fraud. Internal governance can protect against these problems and can be strengthened through strict licensing rules, care in implementing deregulation, and measures to promote good quality data. The emphasis on internal governance recognizes that bank owners and management have the primary responsibility for their bank's solvency. Banks are companies that
operate in a competitive environment and cannot be practically supervised in all their activities. It is not illegal to manage a bank poorly, but it is illegal to violate bank laws and prudential rules, or keep information from supervisors. Market forces reinforce managements’ incentives to operate a bank safely, provided that owners have funds at risk. For market forces to be effective, official safety nets must be limited, accurate information must be disclosed to depositors and other creditors, and a strict exit policy needs to be in place. Finally, effective regulations and supervision procedures should be designed to reinforce banks’ internal governance and market discipline. The Basle Committee’s capital adequacy framework has been adopted in a number of countries, but attention must be given to complementing it by assigning meaningful risk weights and proper evaluation of asset quality. Further regulations can help to promote prudent policies through specifying limits on credit, liquidity, interest rate, and foreign exchange risks.

Six case studies were presented to the seminar as main papers. Each is an excellent review of the background to that country’s banking sector problems, to the official objectives and guidelines underlying the strategies to resolve them, and the outcomes. While each case is different and demonstrates the importance of flexibility in applying the guidelines discussed at the seminar, there are a number of broad similarities in the approach to banking system restructuring and the evolution to a modern, market-based system.

The case of Indonesia, presented by J. Soedradjad Djiwandono, Governor of the Bank of Indonesia, provides the longest historical review of developing a banking system, from a controlled approach in the late 1960s to a relatively open and competitive market in the 1990s. In the late 1980s, the authorities undertook reforms to promote competition through new entrants, expansion of activities, and greater autonomy in decision making at the individual bank level. The ensuing rapid growth in banking intermediation, however, led to circumstances in which prudential regulations and practice lagged behind actual market activity. In response to instability in the system, new prudential standards were adopted in 1991, the most important of which was the Basle Agreement risk-weighted capital adequacy standard. Later, the Bank of Indonesia encouraged banks to bolster their system of self regulation and required them to disclose audited financial data. Thus, the Bank of Indonesia found that market-based competition alone may not lead to an efficient banking sector. Easy entry to banking needed to be balanced by appropriate regulations that made use of internal oversight and control and international capital standards. Reforms were motivated in part by depositor protection for
the benefit of the general public and in part by the objective of developing financial services.

The banking systems in Poland and the Czech Republic both evolved from centrally planned monobank systems. This transition was summarized by Gérard Bélanger, Senior Advisor, European I Department, who observed that Poland, as other countries in transition, had to create an independent role for commercial banking as well as for monetary policy. In a planned economy, the role of money is passive and banks exist to pass credits to directed sectors. In a market economy, the role of money becomes active, giving the holder of money command over real resources. Banks allocate credits according to the expected return on the loans. The transition process has involved a number of challenges to the managements of the banks, including nonperforming loans in bank portfolios, lack of experience in assessing and managing risk, supervisors who were unable to ensure effective oversight, and overall macroeconomic instability. These problems were compounded by inadequate laws and accounting practices, and—as put by Mr. Tošovský—an excess demand for banking services. As a result, in many transition economies, there was a rapid and not commercially driven expansion of the banking sector, often without the necessary controls, both internal and external.

Hannah Gronkiewicz-Waltz, Governor of the National Bank of Poland, told the seminar that the initial strategy for developing banks in Poland had relied on enhancing competition through liberal licensing laws, and on privatizing the large state banks. Many banks, however, were unable to manage their growing portfolios, owing to a lack of trained staff and insufficient internal procedures and regulations. Macroeconomic shocks also harmed the weak system; official action was needed to avoid a systemic crisis and to protect depositors. Ms. Gronkiewicz-Waltz summarized the lessons learned, including the importance of internal governance. In this context, bank supervision must exercise influence on the composition of a bank’s ownership and management and require banks to develop appropriate internal practices, for example, limits on loans to insiders. Ms. Gronkiewicz-Waltz recognized the importance of moral hazard effects that derived from the desire to protect depositors. Hence, in principle, losses should be absorbed by capital. However, in a systemic crisis, these concerns must be set aside, and assistance from public funds might well be necessary. In Poland in these circumstances the authorities found it necessary to accord a high degree of protection to bank depositors.

Mr. Tošovský described three phases in the transformation of Czech banking, along the lines of the Polish experience: first, rapid growth
in banking services; second, a period of consolidation when prudential rules were put in place and banking supervision was improved; and third, a period in which the banks improved their efficiency and competitiveness toward international standards, and the authorities enforced the new regulations to ensure that the banking system was sound. A key objective was to avoid a systemic crisis and the resulting adverse impact on the macroeconomy. This was achieved in part through a consolidation program that transferred bad loans to a special institution. Later, consolidation of smaller banks became necessary, and this was accomplished through investor participation and recapitalization.

As in Poland, development of the legal and institutional framework—the “rules of the game”—lagged behind the innovations in the financial sector. Parallels can be drawn with other countries, not just those in transition. Financial liberalization, market growth, and the increasing complexity of financial products point to a need for innovation also in legislation and regulatory institutions. Key among the necessary measures is a strengthening of prudential principles in bank operations, ensuring heightened internal governance, the regulation of all financial market participants, and the prosecution of criminal behavior.

Miguel Mancera, Governor of the Bank of Mexico, identified similar features in discussing the causes of the recent banking crisis in Mexico. In Mexico, the financial system was overwhelmed by the growth in domestic and foreign resource flows following the country’s structural reforms and stabilization policies. As in Poland and the Czech Republic, banks were unable to handle the resulting credit expansion in part because managers were not equipped to manage such rapid growth in loan portfolios. Similarly, supervisors were not equipped to keep abreast of the expansion. The resolution of the resulting crisis was guided by the need to contain systemic risk, minimize fiscal costs, maintain monetary control, and limit moral hazard problems by paying careful attention to the incentive effects of the authorities’ actions. The restructuring was implemented more quickly than in the countries discussed above, and involved support to the banks and depositors to avoid a systemic failure, as well as measures to strengthen supervision.

Several of the discussants also presented interesting insights in analyzing the restructuring experiences in their countries. Pedro Pou, President of the Central Bank of Argentina; Marko Škreb, Governor of the Croatian National Bank, and Armando Tetangco, Deputy Governor of the Philippines National Bank, all described situations of banking system unsoundness and the remedial measures pursued in
their countries. There were differences of emphasis, but few on the overall causes of the problems and the reasons to address them, compared with those discussed in the papers summarized above.

The banking crises in Japan and Sweden differ from the other cases presented in a number of respects. First, both are advanced economies and have the fiscal resources to handle a banking crisis without putting disproportionate costs on depositors and other creditors. Second, the origins of the crisis can be traced to the easy monetary policies and financial deregulation in the late 1980s that led to a speculative bubble in many financial assets. In this regard, the situation was, in some ways, similar to the banking sector problems experienced in the United States and other Scandinavian countries at the end of the 1980s and beginning of the 1990s. However, the status of the banking sectors in Japan and Sweden differs. Stefan Ingves, Deputy Governor of the Riksbank (Sweden's central bank), reported that his country's approach of separating insolvent banks into "good banks" and "bad banks" was largely successful and indeed the selling off of bad assets was ahead of schedule. Mr. Nagashima, Deputy Governor, Bank of Japan, said that while much progress has been made, reconstruction of an efficient and stable financial system is, as yet, incomplete. A plan to revive Japan's financial markets is in place and encompasses new entrants into banking and other financial institutions. Among the proposals are the abolition of authorized foreign exchange banks (so that nonbanks can participate in this activity), institutional changes at the Ministry of Finance, and the Bank of Japan.

**Seminar Summary**

In his final address to the seminar Mr. Guitián recapitulated some of the principal themes and policy lessons that had arisen.

First, there is the theme of the mutual interaction between banking soundness and monetary policy. Banks are critical for the efficient transmission of signals from the operating instruments to the final objectives of policy, and for the efficient intermediation of financial flows to enable an economy to grow at its potential. Unsoundness in a banking system can lead to significant monetary and fiscal costs, and pervasive economic disruption. This interaction does not pose a conflict between the policy goals of price stability and a sound banking system. Rather, the two objectives are mutually supporting since durable price stability relies on a sound banking sector and banks cannot be strengthened by relaxing the commitment to price stability.

Second, there is the theme of seeking to delineate the boundaries between the public and private sectors in managing banking sound-
ness. Market forces are agreed to have a key role within the three pillars of achieving banking soundness: market discipline, internal governance, and official supervision and regulation. However, there was significant diversity among participants in the relative roles to be accorded between them. There was general recognition of the risks of excessive official involvement. For instance, the decision of the Bank of England to let Barings fail since no systemic threat was apparent, will have demonstrated that the authorities are not standing behind every bank, and will have served to enhance internal bank governance. In this context, Mr. Guitián observed that supervision should utilize market forces. The trend toward market-friendly supervision—taking advantage of market forces—needs to be recognized and strengthened.

Within this theme there is also agreement on the need for good data, and for strong public disclosure, so that both the official side and the markets have a good understanding of a bank’s condition. The importance of a good quantified picture of a bank had, however, to be seen against a recognition that quantification could be only the first step for evaluating a bank, and that qualitative indicators were increasingly important.

The third theme is that of harmonization, both geographically and across sectors, between banks and nonbanks. Banks still are seen as performing distinct special functions. But if the trend toward the erosion of their specialness continues, there will be important issues to address as to how the authorities should adapt the safety nets that they have designed to protect the banks.

The fourth theme is that of technology. Technology is permitting the banking sector to develop products of ever-increasing complexity. Supervisors will need to ensure that they do not fall behind. This calls for ever greater sophistication among supervisors. It also calls for a switch in supervisory approach—as recently announced by the Basle Committee—from concentration on predetermined prudential ratios to focus on a bank’s internal control mechanism.

Having drawn out these themes there is a clear role for the IMF in issues of banking soundness, because of the IMF’s traditional focus on monetary and macroeconomic policies and the direct link between those and the efficient working of the banking sector.

Macroeconomic stability, of course, is important to minimize risks of systemic problems of bank unsoundness. The full enforcement of appropriate prudential standards to ensure that risks are properly managed is a necessary concomitant. Also, the authorities must be prepared to take robust and early action—including closure—against offending banks, in order to ensure that appropriate incentives are in
place for the banking sector as a whole. The specification of prudential standards is likely to be a dynamic process, with supervisors constantly having to keep abreast of market developments, and having to match the increasing sophistication of the markets. Strategic policy issues—such as with regard to conglomerates or the diffusion of banking activities beyond the banking sector—will require careful consideration, and full coordination between supervisors, and other specialists of financial market developments, as well as those involved in macroeconomic policy.

While each case of banking sector unsoundness is different, there is also a considerable commonality in the experience. Policymakers and supervisors can learn a great deal from watching developments in the banking sectors in other countries, and how the respective authorities have sought to deal with problems. Analysis of banking problems in one country is likely to bring recognition of familiarity among those confronting such problems elsewhere. Opportunities for bringing together supervisors and policy makers from various countries should therefore serve to increase common understanding of the importance of banking sector soundness, and how to undertake remedial action if the system becomes unsound. It is to be hoped that this seminar organized by the IMF Institute and the Monetary and Exchange Affairs Department of the IMF has played a part in assisting this effort.
Part I

Banking Soundness and the Macroeconomy
I am very pleased to welcome you to the Seventh Seminar on Central Banking, organized by the IMF Institute (INS) and the Monetary and Exchange Affairs (MAE) Department. These biennial seminars have become a tradition, and we in the International Monetary Fund (Fund) benefit greatly from this opportunity to bring together senior central bankers and policymakers to exchange ideas and develop collective thinking on current issues.

There can be no doubt that the theme of this year’s seminar, “Banking Soundness and Monetary Policy in a World of Global Capital Markets,” falls squarely within that category! But perhaps it would still be worthwhile to say a few words about the Fund’s interest in this subject and the developments, prompting us to intensify our work in this crucial area.

In recent years, it has become clear that the forces of globalization—especially financial market liberalization and the exponential growth of the international financial markets—have a major impact on the conduct of monetary policy, and on macroeconomic policy more broadly. In particular, large private capital flows have become a major challenge for policymakers. These flows have increased the availability of capital for investment, bringing many benefits to recipient countries and the global economy. But they have also placed increasing demands on the institutions that intermediate them, since open capital accounts require sound financial systems.

These considerations have led us to focus on the structure of financial markets and their importance for the transmission of monetary policy and for sound macroeconomic policy formulation more generally. Here, I must give credit to Manuel Guitián, the head of the Monetary and Exchange Affairs Department, for calling attention to
this “neglected dimension” of monetary policy in early 1994 and initiating a major research effort within his department. Then came the crisis in Mexico, an international wake-up call that financial sectors matter and that financial turbulence in one country can—and sometimes does—spill over into other countries.

Here at the Fund, financial sector issues took on added importance as we took steps to strengthen surveillance over members’ policies and performance in response to the Mexican crisis. In particular, we began to look much more closely at the sustainability of financial flows, to the soundness of banking systems, to countries where financial market tensions could have major spillover effects, and to countries at risk of adverse market reactions. Moreover, recognizing that markets function better when they have more timely and reliable information, we developed a set of standards to guide members in the dissemination of economic and financial data to the public.

These developments, in turn, have lent increased urgency to our work on financial issues. For example, our International Capital Markets report has been giving financial issues greater scrutiny. In addition, early in 1996 we presented to our Executive Board a set of papers on bank soundness and macroeconomic policy, which dealt with this issue at length. These papers were well received by the Board, which supported further efforts to develop IMF surveillance of financial sectors.

Banking system soundness is essential for macroeconomic stability, as well as for economic growth and prosperity, all of which are at the core of the Fund’s mandate. Both our multilateral surveillance over the global economy and international financial markets and our bilateral surveillance over individual countries must, therefore, help promote stable macroeconomic and structural environments in which banks can operate. In this work, we must seek to identify problems early and put measures in place to maintain or restore financial system soundness, using all the mechanisms at hand: policy discussions, program design, and technical assistance.

The Fund’s Interim Committee’s declaration in September 1996, entitled “Partnership for Sustainable Global Growth,” also highlighted the importance of banking soundness. Since then, the staff of the Fund have been working on several additional papers. All this work is being undertaken in close consultation with the World Bank, which is also increasing the attention it gives to financial sector issues.

Developing the framework for sound and efficient financial systems in our increasingly integrated global economy requires a global effort. You may remember my call for action at the Group of Seven (G-7) presidential summit in Lyon last summer, in which I urged a
major international initiative to develop a broader and more effective framework for ensuring the safety and soundness of national banking systems and the international monetary system. I am encouraged by the number of important measures that have been undertaken since then involving emerging-market economies. These include a Group of Ten (G-10) Working Party on Financial Stability in Emerging Markets; a special working group of the Basle Committee on Banking Supervision to develop appropriate international banking guidelines; and similar work by the International Organization of Securities Commissions, among others. The Fund is cooperating closely with all these institutions, and these initiatives will benefit the entire membership of the Fund.

This seminar, then, is one step in the process of developing collective thinking on this important topic. By focusing additional attention on the necessary framework for sound banking, the Fund hopes to strengthen members' regulatory and institutional structures for sound banking and financial intermediation. To do this effectively, we need a broad consensus on what is most important and how to accomplish it. This will not be an easy task and will require an enormous coordination effort. But it also provides an excellent opportunity to develop a consensus for real reform—reform that is needed in order for countries to take full advantage of the opportunities that globalization offers.
Banking Soundness and the Role of the Fund

STANLEY FISCHER

The interest in issues of banking sector soundness—in banking standards, bank supervision, the role of banks in the propagation of crises, and bank restructuring—now reaches well beyond its natural constituencies in the central banks, bank supervisory agencies, and research communities, to the highest levels of government. The issues were discussed at the G-7 summit in Lyon in June 1996 and are reflected in its communique:

The globalization of the financial markets has contributed to the creation of a more complex financial environment. Better prudential regulation and supervision in the financial markets are essential elements in preserving the stability of the international monetary and financial system. In this respect, we welcome the progress on the strengthening of capital standards, including the recent agreement on capital adequacy standards for banks’ exposure to market risk, improved disclosure and enhanced surveillance.

This interest has been created by the startling frequency, scale, and consequences of the banking crises of recent years. In the past ten years, well over half the IMF’s membership has experienced significant banking problems in one form or another. These crises have afflicted every region of the globe, and countries at every level of economic development—among them the United States, most of the large Latin American countries, and countries in Africa, Asia, and Europe,

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including a number of the economies in transition. In some countries, the fiscal cost of resolving the direct banking sector crisis has amounted to well over 10 percent of GDP.

But the costs extend beyond the banking sector. Banking sector crises have been associated with economic slowdowns, higher fiscal burdens, higher inflation, and exchange rate crises. Most economic crises do not originate in the banking sector; but the weaker the banking system, the more costly and lengthy the crisis will be, and the more difficult it will be to resolve.\(^1\) And the weaker the banking system, the more likely it is that problems in individual banks will develop into a systemic crisis.

While no two banking crises are identical, a number of factors are typically present. They include problems of bank governance, an inadequate regulatory framework, poor supervisory capacity, the lack of a commercial credit culture,\(^2\) as well as factors external to the banking sector, including macroeconomic imbalances, both domestic and external.

The costs, consequences, and frequency of banking crises are reasons enough for the widespread interest in banking sector problems. More systematically, we can distinguish two aspects of the need for sound banks: macroeconomic stability and growth. The macroeconomic interest results from the banks’ role in the monetary transmission process: the efficacy of central bank operations in the money or the foreign exchange markets depends on how the banking system transmits the interventions to borrowers and savers. If the banking system is weak, the transmission will be weak or perverse, with lower money market rates being used as an opportunity to rebuild the banks’ capital base, rather than being transmitted to borrowing rates. Or, unsound banks may put pressure on the authorities for assistance whenever interest rates rise. The fiscal burden of dealing with weak banks also complicates the task of macroeconomic management.

On the international side, banking problems may both exacerbate and be exacerbated by exchange rate movements. With global capital mobility increasing, the role of banks in the international transmission mechanism takes on much greater importance. Banks that have taken open positions in foreign currencies are especially vulnerable to exchange rate movements.

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\(^1\) In this connection, it is remarkable that the 1996 resignation of the Governor of the Chilean central bank was a result of disagreements on how to handle one aspect of the aftermath of the Chilean banking crisis in 1982.

\(^2\) The phrase is due to E. Gerald Corrigan, formerly Chairman of the Basle Committee (1990 to 1993) and currently Managing Director, Goldman, Sachs & Co.
The state of the banking system also has important effects on growth. The sounder the banks, the better they will perform the task of intermediating between saving and investment. The more efficiently the banking sector can collect savings from the economy and from the rest of the world, and lend them to potentially productive borrowers, the more likely the economy is to grow. The stronger and the better managed the banks, the lower their spreads are likely to be, and the better their ability to judge the quality of loans and borrowers. Conversely, where a banking sector is inefficient, and the banks weak, the saving-investment process will work badly, and growth will be inhibited.

In short, a sound banking system is critical both for economic growth and for domestic and international economic stability. While the primary responsibility for dealing with the banking sector rests with the national authorities, international organizations—among them the IMF, the Basle Committee, the Bank for International Settlements (BIS), the World Bank, and the regional development banks—all have a role to play in improving banking sector performance. Relying on comparative advantage, I focus in this paper on the role the Fund can and should play in the international effort to improve the functioning of the world economy by strengthening banking systems.

Role of the Fund: Surveillance

The Fund can help improve banking sector performance in member countries through regular surveillance over their policies and prospects, through conditional lending, and through technical assistance.

IMF surveillance takes two forms: multilateral surveillance, in which the Fund provides its views on the world economy and on global or regional issues, and from which countries draw conclusions about implications for their own policies; and bilateral surveillance, in which the Fund is involved directly in dialogue with an individual member over its economic policies.

Multilateral Surveillance

The Fund’s World Economic Outlook presents projections and analyses of global economic developments every six months. In addition, the Fund prepares the International Capital Markets report, which reviews global capital market developments as well as those in some individual countries. These publications are an excellent vehicle
for bringing such issues to the attention of the official sector (through discussion at the Executive Board of the IMF) and the international community more generally through their subsequent broad distribution, publication, and press coverage.

Banking sector developments have at different times figured prominently in both these exercises. The banking problems associated with the debt crises of the 1980s, for instance, directly affected prospects for the world economy as presented in the World Economic Outlook during that period. In addition, the reports contain special studies of banking sector developments. The International Capital Markets, for instance, has studied the impact of the failure of Barings on international financial markets. It has also reported on banking issues in different countries, including Japan.

Recently, the Fund has been considering how to play its part in improving banking sector safety and the dissemination of appropriate banking standards for the international community as a whole. This effort follows directly from the important work carried out by the Basle Committee on banking standards for the G-10 countries, and the desire to extend the insights and conclusions of this work to other countries. Many countries outside the G-10 have in recent years attempted to develop banking standards based on interpretations of the Basle work. Some have been quite successful, but overall there remains a need for consistency and for full analysis of how those standards are to be applied under potentially different conditions from those that exist in the G-10 countries. More specifically, standards designed as minima for the G-10 countries may be insufficient to protect banking systems in more volatile environments. Other issues—such as accounting rules and asset valuation, loan classification, and provisioning rules—also need to be addressed to develop an adequate overall framework.

The Basle Committee is undertaking other important work at present, seeking to establish prudential standards and guidelines that would apply to emerging-market countries, and perhaps to a much broader group of countries, and the IMF is happy to be able to cooperate in this effort. The additional dimension that the Fund brings to this effort derives from its universal membership. It has detailed knowledge of the workings of countries across the world and close relationships with the authorities in virtually all member countries. It has been intimately involved in work on the banking sectors in many countries. It is thus well placed to work with the Basle Committee, to complement the expertise of that committee, to conduct research on banking sector issues, and to help adapt banking guidelines for implementation in countries across our membership.
Bilateral Surveillance

The Fund's principal means of bilateral surveillance is the regular Article IV consultations. IMF staff visit each member country roughly once a year for detailed and in-depth dialogue and analysis of the country's economic policies with national officials. On their return, they prepare a report—the Article IV report—which is presented to and discussed by the Fund's Executive Board and transmitted to the 181 member governments.

Article IV consultations always focus on macroeconomic issues, especially fiscal, monetary, and exchange rate policies. Increasing attention has also been devoted to the structural issues that underlie macroeconomic performance, including those concerning the banking sector. This reflects in large part the number and range of countries in which banking sector problems have emerged in recent years. Experience has shown that the earlier such problems are diagnosed, and the more promptly effective remedial measures are implemented, the less costly they are likely to be.

For these reasons, Article IV consultations increasingly include surveillance of a member's banking system and financial infrastructure. Indeed, staff from the Monetary and Exchange Affairs Department of the Fund, co-host of this seminar, will participate in Article IV missions to some thirty countries this year—among them, some leading industrial countries. From the viewpoint of the member country, the Fund's growing attention to banking sector issues is an important route by which the weight of international experience can be brought to the assistance of domestic policymakers, particularly in an area such as banking where diagnosis of problems is often difficult.

To improve its diagnostic tools, the Fund is working on possible banking sector indicators to complement the macroeconomic indicators on which it already has substantial expertise. Early warning indicators developed and applied in recent years by supervisory agencies and by market participants will provide important input for our work, but the Fund’s purpose is somewhat broader—to identify and assess developments that are most critical in affecting prospects for the banking sector and the economy as a whole.

In addition, analysis of the banking sector has become important in the Fund's bilateral surveillance even where there is no risk of crisis. A banking system may be sound, for instance by merely channeling the directed lending of the government, and yet not fulfill its proper function of providing efficient intermediation, in directing resources to their most productive uses.
Bilateral surveillance serves not only the country whose economy is being appraised but also the international community. Where a country is of major importance to the world or a regional economy, or where it has problems that are similar to those in other countries—for instance, among the transition economies—this information may be of considerable use to domestic policymakers in other countries. Executive Board discussion of the Article IV report makes this information available to other countries. It is the universality of the Fund’s membership, and the central role of surveillance in its regular activities, together with the high professional standing of its staff, that makes it particularly well suited to such a role.

Role of the Fund: Conditionality

Countries turn to the Fund for financial assistance when they have macroeconomic crises or severe macroeconomic difficulties. Sometimes, though not always, the banking system in such an economy will also be under duress.

In such circumstances, both monetary and fiscal policy may be compromised. Monetary policy becomes more difficult because the tightening of policy when banks are insolvent increases their liquidity problems. Experience shows that in the early stages of banking crises, the central bank often provides large amounts of lending to banks in difficulty. Such lending is rarely offset by sterilizing the liquidity infusion, especially if banking sector problems are widespread.

On the fiscal side, any central bank losses from its actions to help the banks are transmitted to the budget, one way or another. Either the loss is explicitly recognized and compensated for by the government, implying a direct charge on the budget, or it is ignored, in which case the reduced profits of the central bank reduce transfers into the government budget in future years. Thus, an initial monetary burden becomes a fiscal burden. Further charges on the budget will occur when the authorities restructure a banking system to restore soundness, for instance by recapitalizing the system and perhaps by compensating depositors. Although finance through bond issues means that these costs do not have to be incurred within a single year, even the interest rate burden on a bond issue is often substantial.

Targets in a Fund-supported program need to make explicit allowance for the implications of banking sector difficulties for the country’s monetary and fiscal positions. Setting targets that are consistent with desired growth and inflation paths is difficult if significant monetary expansion or fiscal financing are envisaged to deal with
banking sector problems. Additional adjustment measures will generally be needed to offset the monetary and fiscal effects of the banking sector problems.

Even worse from the point of view of program design, it is hard to set any credible macroeconomic targets without having a full handle on the magnitude of banking sector problems, or without a quantified program to address them. In some cases, the magnitude of the monetary and fiscal costs may be such as to require major changes in the design of the program. Hence any possible banking system problems have to be fully investigated, and a plan to address them developed, before an overall macroeconomic program can credibly be put together. In a number of recent cases, banking experts on the Fund staff have worked with the macroeconomic teams in the design of a program to be supported with Fund resources. In several of these cases, the Fund and the World Bank have cooperated, at both the diagnostic stage and later stages, with the Fund taking the lead in the overall macroeconomic program and the Bank lending for the restructuring of the banking system.

What then should be done when a bank or group of banks is discovered to be unsound? The first step is to stop the bleeding: the authorities should act immediately to stop the continuing flow of losses from the banking system. The longer banking sector losses are allowed to continue, the more costly will be the eventual restoration of banking sector soundness. Action may include the closure of banks that are insolvent, or the placing of constraints on the activities of particular banks. In many countries, the authorities set out memoranda of understanding with bank management, requiring, for instance, enhanced loan recovery efforts and lending limitations.

Second, the authorities should improve governance of the banking system to staunch flow losses and prevent their recurrence. Banks should be subject to regular audit according to internationally accepted accounting principles and required to disclose sufficient information that outsiders can have a true picture of their condition. Those responsible for bank unsoundness should pay a penalty for their behavior, in part to reduce the moral hazard of government intervention. Any provision of government money, or any write-down of liabilities to depositors or other creditors, should be accompanied by thoroughgoing changes in management and ownership. If former owners or management have acted illegally or in violation of prudential requirements, the authorities should forcefully press for the imposition of the available penalties. Such an approach needs to be applied both to the state and the private banks, although the disciplining of state banks by the state imposes special challenges.
Third, the authorities need to deal with ongoing banking sector losses. Having ensured that the owners of insolvent banks lose their rights to any assets of the banks, the authorities must determine how net losses will be shared among depositors, the remaining creditors, and the government. This will depend partly on fiscal considerations. A government recapitalization of a bank, or of the banking sector, adds to the deficit, even if the budget includes only the repayment stream of the bond issue. Since most countries with banking sector problems have very little room to increase their fiscal deficits, expenditures on banking sector recapitalization will lead to difficult choices as to where there can be compensatory fiscal cuts. Nor is it any solution to provide financing through off-budget channels, for instance to use the central bank to lend to the banks or to effect the recapitalization. Not only will the ultimate cost have to be borne by the budget anyway, but such methods reduce the transparency of the process and tend to undermine the proper operations of the institution being used for this purpose.

If there is to be recapitalization by the public sector, the costs should be borne on the budget explicitly. If this forces the government to make difficult choices, it only reflects the reality of the situation—recapitalizing banks uses real resources. In general, the burden of resolving banking sector unsoundness should be shared. While the government may have to take on its share, it should not take on the entire share, for here too moral hazard considerations weigh heavily. In some countries where the government bore the full cost of bank recapitalization, the solution was not regarded as once-and-for-all, and further recapitalization came to be needed. In some other countries, bank recapitalization schemes were arranged through deposit insurance funds financed partly or wholly by the banking community. This ensured that the banking sector had a strong interest in cost-effective bank restructuring.

Fourth, the authorities need to establish the credibility of the restructuring plan. They need to formulate a plan, announce it, and stick to its general principles. Banking sector unsoundness may not be the only major problem facing the authorities, and its resolution may even add to other problems—for instance, bank recapitalization may increase fiscal imbalances, and increasing loan recoveries may worsen the problems of the enterprise sector. A policy that does not take account of these feedbacks may be incoherent and unsustainable.

The feedback effects between macroeconomic policy and the health of the banking sector operate in both directions. Where banking sector problems are the result of poor economic policies, any restructuring plan must be accompanied by improved economic management: macroeconomic stabilization improves conditions for the banking
sector, as it does for almost every sector of the economy. This reinforces the case for addressing banking sector problems in the context of an overall stabilization program.

In the reverse direction, banking sector problems affect the design of a stabilization program. For instance, on the monetary side the size of the money multiplier is a key relationship for determining the amount of credit expansion that would be consistent with a given inflation target. Loss of public confidence in the banks causes this relationship to be unstable and unpredictable. Broad money may decline while holdings of currency and foreign currency in the economy increase. A program based on broad monetary variables would have to make some provision for the uncertainty about monetary relationships, including paying more attention to the behavior of interest rates, inflation, changes in asset prices, and, to the extent possible, indicators of real activity.

In addition, the authorities may lose many of the instruments of monetary policy in a banking crisis. For instance, the market for government securities may have collapsed, ruling out the sale of securities as a means for managing domestic liquidity. Fund program targets have to be adjusted accordingly.

In sum, these linkages between the health of the banking system and macroeconomic policy mean that any program of macroeconomic stabilization must take explicit account of the state of the banking sector and the measures needed to improve it. This is what the Fund tries to do in its macroeconomic conditionality.

In many Fund programs, work on the banking system is coordinated with the World Bank, which has particular expertise in the restructuring of banking systems. Depending on its previous involvement with a country, the Bank might be in a position to offer an early diagnosis of the state of the banking system, and in any case both the Fund and the Bank are likely to be involved. In many cases, the Fund will take responsibility for the overall macroeconomic program, with the Bank taking the lead in and providing financing for bank restructuring. The relevant regional development bank may also contribute to or take the lead in providing financing for bank restructuring in some countries. Sometimes, when speedy action is needed, the Fund might have to include banking sector reforms as part of its conditionality even before a Bank program can be put in place.

Role of the Fund: Technical Assistance

Fund technical assistance can play a role at each stage of the process of addressing banking system problems: diagnosis; the plan-
Banking Soundness and Role of the Fund

ning of remedial measures; and their implementation, both in the initial restructuring stage and over the longer term. In some cases, this assistance is part of an ongoing program of institution building that the Fund has been providing to member countries, particularly the transition economies. In other cases, the Fund might not have had such an intense involvement, but the authorities may request assistance when banking sector problems emerge.

Often the Fund will work by putting together teams comprising Fund staff and outside experts, generally from cooperating central banks. Indeed, the arrangements that the Fund has made with over twenty central banks for their specialist staff to participate in technical assistance teams to transition economies are an important element in the international community's ability to provide a timely and effective response to requests for assistance, including on issues concerning the banking sector. Similarly, Fund technical assistance is often combined with technical assistance from the World Bank and from the regional development bank.

Principles of Fund Involvement

While the details of the Fund's involvement will vary depending on the characteristics of the country's economy, it tends to follow certain principles.

Fund advice and assistance is bound to reflect the Fund's overall perspective and objectives: they will therefore support increasing openness in the world economy, greater economic liberalization, and greater market responsiveness. Hence a Fund-supported bank restructuring plan is unlikely to involve the imposition of extensive controls, for instance on withdrawals of deposits or the exchange of currency. This follows from our experience that such controls are at best ineffective and at worst induce distortions in the economy that vitiate program goals. They have a negative impact on investor and public confidence, and hence may undermine the restructuring program, even if they appear superficially attractive.

Second, it is important that ownership of any banking sector program stays with the country itself. The Fund may provide advice and set conditions under which it is prepared to give financial support, but experience shows that programs are more likely to succeed the more the government owns—that is, accepts and takes responsibility for the program. Why? Because it is the government that has to implement the program, explain it to its people and the international community, and find appropriate responses if problems develop. Unless they are
committed to sustaining the program, they are unlikely to stay with it if conditions become difficult—and most programs are tested at some point.

Third, the Fund seeks to help establish principles of appropriate commercial bank behavior among bankers and their authorities. In many transition countries (and other countries too), the emergence of a banking sector over the past decade was not fully matched by an understanding of the role of banks in a market economy. Authorities still saw the banks, especially the state-owned banks, as a conduit to funnel credits to favored sectors of the economy, especially as they came under increasing pressure to cut their fiscal deficits. Such credits have generally not been subject to serious credit risk analysis and may not have been intended to be repaid. A similar situation has often prevailed in the private sector, with a perception that ownership of a private bank was essentially a means to extend credit to a favored circle. As the consequences of such attitudes manifest themselves in insolvency and bank closing or restructuring, successor owners and managers need to understand the causes of their predecessors’ failures and should act in accordance with sound commercial banking principles. In large part, this should be achieved by comprehensive and effective supervision, a topic that the Fund always stresses. In addition, the Fund encourages the authorities to foster a culture of sound commercial banking practice.

Fourth, as already noted, the Fund operates in coordination with other international organizations, particularly the World Bank. The Bank has been involved in banking and financial sector issues for many years and will be increasing its involvement. Indeed, the World Bank can bring greater levels of staff resources to banking sector issues than can the Fund. The Fund tends to be involved when the banking problems are systemic and when they have spillover effects to the rest of the economy. The Bank will generally be involved with the Fund in helping to design the strategy and providing assistance to particular banks or other special institutions involved in handling the banking sector problems (for instance an asset realization agency), as well as in potentially providing financing for banking sector restructuring.

There is close cooperation between the Bank and the Fund whenever both are working with the same country. Often World Bank staff participate in Fund missions, and vice versa. At headquarters, staff from each institution participate in meetings at the other. Management and senior staff of the two institutions meet regularly to forge a common view on the involvement of their respective institutions, from the broadest strategic aspects to the detailed handling of particular country cases.
Sometimes the Fund may be involved when the World Bank is not. This relates to the fact that the Fund, through its surveillance activities, often has an intensive ongoing relationship with its members even when they are not borrowing. For instance, the Fund has undertaken surveillance of banking difficulties in some industrialized countries where the Bank was not involved. Further, sometimes the Fund’s technical assistance can be delinked more readily from financial support than is the case for the World Bank. Thus in countries where there is no World Bank lending in the financial sector, the Bank may not be actively working on banking issues. The Fund would welcome arrangements that would enable the Bank to increase its involvement in such cases.

While there is much to be done, and much that the international institutions can contribute, we have to be realistic about the Fund’s resource constraints. The staff is already fully committed to existing tasks and any further expansion into banking sector work is likely to be at the expense of some other activity. As such, the Fund needs to be careful not to generate expectations among member country authorities that it cannot fulfill.

**Final Observations**

The handling of banking sector problems is likely to be very different now than in earlier periods, because of the greater openness of the world economy in general and national banking sectors individually, and because there are now far fewer domestic and external financial controls. We are experiencing the benefits and challenges of operating in an environment where the authorities have fewer direct instruments and are more subject to the constraints of markets, international as well as domestic. This affects the management of the banking sector as well as of the economy more generally. Any resolution of banking sector problems is therefore likely to depend heavily on market reactions, and hence on the restoration of confidence. For this reason, not only macro-economic stabilization but also the establishment of guidelines and incentives for sound banking practices, including incentives to increase efficiency in the banking system through competition, are likely to be important concomitant elements of any bank restructuring strategy.

Banks are now frequently very diverse and complex institutions. Some undertake the marketing of highly refined products for a sophisticated market; others may be quasi-fiscal credit intermediaries or financing vehicles for nonbank activities. The Fund seeks to tailor its recommendations to the particular situation at hand.
Banking sector problems have implications for the design of Fund programs. Instability in the demand for money during banking sector restructuring, for instance, may lead to the need for alternative anchors and indicators for Fund-supported programs. More broadly, the need for and the costs of bank restructuring and the limits banking sector weaknesses place on the transmission of monetary policy need to be reflected in program design.

The international community is now involved in a major effort to improve the quality of banking systems around the globe. Through our surveillance, multilateral and bilateral, through conditionality in Fund-supported programs, and through technical assistance, the Fund, in cooperation with other institutions, will play its full role in that effort.
It is a great pleasure for me to comment upon Stanley Fischer’s paper, which provides a comprehensive and insightful overview of the most important conceptual and practical issues relating to stable functioning of banks under increased capital mobility.

Fischer invites us to consider the new challenge for the IMF concerning bank fragility that has arisen from greater openness and interdependence of national economies. I find the willingness of the Fund to deal with this set of problems timely and relevant, because they may exert pressure on the Fund’s ability to reach its ultimate goals as formulated in the Articles of Agreement, including the stability of the international monetary system. I think it is a solid and provocative paper, and I agree with almost everything in it.

Perhaps the most important point of the paper is that sound banking systems have become a precondition for national as well as international financial stability and sustained economic growth. To support this idea, Fischer refers to the results of the IMF staff study on bank crises in different member countries, which have been associated with economic decline, high fiscal burdens, depreciation of the currency, and inflation. The cost of resolving banking sector crises may well exceed 10 percent of GDP, as in the case of Venezuela and Latvia. Indeed, the burden may prove unbearable, because developing or transitional economies have limited resources that are already badly needed for economic development and solving social problems.

I completely agree with Fischer that increased attention to the soundness of national banking systems may and will help to provide for long-term macroeconomic stability in the open world economy. This is true despite the declining role of commercial banks in the process of financial intermediation. Nevertheless, commercial banks will continue to be a fulcrum for monetary policy implementation, and in this sense their crucial importance for national economies is not in question. Fischer is right when he says that in the case of an unsound banking system, the monetary transmission will be weak and therefore the effectiveness of monetary policy will be undermined. Moreover, we can also talk about the unique role of banks in many countries as institutions where households prefer to place their savings, hoping for absolute safety and accepting moderate, low, or sometimes even negative real interest rates. This factor makes banks
important for formulating monetary policy and defining its quantitative targets. Unexpected withdrawal of savings from time deposits in banks may make the money demand function unpredictable.

I would not dispute Fischer’s conclusion that given the degree of monetary instability in a banking crisis, and the possibly marked shifts in money demand, increasing attention may also need to be paid to assessing policy on the basis of variables other than the monetary aggregates, including for instance interest rates, inflation, and changes in asset prices. But it is useful to note that in transition or restructuring economies monetary transmission through interest rates or other real variables may be quite weak. So the authorities may not find a proper way to achieve final policy goals. The experience of Russia is illustrative in this regard. Evidence from the past five-year period indicates that the interest rate component of monetary transmission has been very vague.

Let me now turn to the problem of linkages between macroeconomic stabilization and banking system soundness. I certainly agree with Fischer when he says that “macroeconomic stabilization improves conditions for the banking sector, as it does for almost every sector of the economy.” But here I would like to focus on the short- and medium-term consequences of disinflation for commercial banks, which sometimes are underestimated. The positions of many banks may be weakened due to gaps between assets and liabilities leading to persistent negative cash flow. This may be aggravated by poor management and risky credit policy, but usually there is an objective basis for this development: it is not easy for banks to foresee precisely the reaction of markets to stabilization efforts.

It is important to consider, therefore, the possibility of helping banks to cope with temporary difficulties at an early stage, supported by rehabilitation programs subject to approval and strict control by the authorities. This approach will slow the speed of achieving low single-digit annual inflation, but it may eventually prove cheaper in terms of the cost of overall macroeconomic adjustment. In view of the above, I would suggest expanding research efforts into optimal solutions of this dilemma—how to achieve macroeconomic stabilization without great deterioration of bank balance sheets.

It is quite clear that the Fund’s involvement in dealing with these issues is essential since the Fund prepares macroeconomic programs that have such profound and varied ramifications for countries and financial markets. I also fully agree with Fischer that “any possible banking system problems have to be fully investigated, and a plan to address them developed, before an overall macroeconomic program can credibly be put together.” On the other hand, it may also be worth-
while to review the possibility of establishing a special Banking Sector Restructuring Fund facility for those countries that face banking sector difficulties. This facility would be accessible only to those countries where macroeconomic performance meets the Fund’s requirements.

Concerning the question of responsibility for addressing problems of banking system soundness nothing can be said against Fischer’s point that primary responsibility for undertaking the rehabilitation must lie with the national authorities of a country. Those authorities should give an impetus to all parties concerned to take timely measures to stop the continuing flow of losses from the banking system and to promote financing of the rehabilitation efforts.

The more detailed comments below focus on some questions of IMF participation in promoting banking sector soundness as a new function. Fischer has presented in his paper an advanced approach to this matter, which I assess as an almost completed project.

First, regarding surveillance, the Fund has an explicit mandate from member governments to conduct bilateral surveillance, through which individual countries can be monitored and performance verified using reliable national data and a consistent methodology. It should also be noted as an important advantage that the Fund’s experts are in direct dialogue with policymakers of member countries.

In this connection I very much support Fischer’s thesis that the Fund should continue to develop banking sector indicators that complement its macroeconomic indicators in order to identify developments that are most critical to the prospects of the banking sector and the economy as a whole. It is only right that those banking sector indicators be used as important criteria for the general evaluation of country economic performance and the adequacy of economic policy, because banking sector problems can become a burden to the economy and macro policymaking.

No less importance should be attached to the multilateral aspect of surveillance. Because of its universal membership, the IMF is well placed to develop banking standards, using as its base what the Basle Committee has done for the G-10 countries. I agree with the idea that there is a need for consistency and for full analysis of how those standards should be applied under very different conditions in different countries. In this way, the IMF’s efforts may complement the important work of the Basle Committee.

The Fund’s long experience preparing the World Economic Outlook and International Capital Markets, in which banking sector developments have a certain place, would permit the Fund to establish a special banking sector report as a new product. This report could serve to
inform the member states about developments in different countries and present the results of comparative analyses as well as general trends in the evolution of national banking systems. The report may prove notable and useful given the high professional standing of the Fund's analysts.

To ensure the effective fulfillment of these new functions concerning banking system soundness, I would suggest creating the proper mechanisms within the IMF structure. It seems quite relevant to have a unit responsible for multilateral and bilateral surveillance over banking sectors. Despite the lack of available resources that Fischer mentions at the end of his presentation, I still think it is important to find certain funds for launching this extremely important work.

Let me now, at the end of my comments, emphasize the usefulness of technical assistance in the area of banking system development, taking Russia as an example. Without any exaggeration, technical assistance has played an extremely important role in preventing a systemic crisis in the Russian banking system. Several international financial organizations and cooperating central banks (Bank of England, Banque de France, Deutsche Bundesbank, and the Federal Reserve) have provided this assistance. I would also like to express my special appreciation of efforts by the Monetary and Exchange Affairs Department of the IMF to assist the Bank of Russia in the area of banking supervision and bank restructuring in order to strengthen the country's financial sector during market-oriented reforms. Substantial resources have been devoted to such technical assistance and these efforts are beginning to bear fruit.

MAE has provided a resident expert in banking supervision starting in 1992, organizing regular missions, expert visits, and workshops. Advice and recommendations by experts based on relevant international experience have helped Russia to work out reasonable solutions and practical responses in the face of banking turmoil and possible catastrophe.

Let me mention an important initiative of the World Bank and the European Bank for Reconstruction and Development (EBRD), chiefly through its Financial Institutions Development Program (FIDP). That project, launched in May 1994, covers about thirty leading Russian banks, which if they meet certain standards and pass special on-site examinations can then benefit from twinning arrangements with Western banks and other assistance. With FIDP, participating Russian banks have begun to realize the advantages of balance sheet transparency and better loan portfolio management.

I would also like to underscore the role of EC TACIS, which has provided financing of an advanced training program, with courses,
workshops, and study tours on banking supervision, money laundering, and banking restructuring. The U.S. Agency for International Development (USAID) has been assisting very much in the training of bank inspectors and participating in some joint instructional inspections both in Russia and in the United States. Unfortunately, because of time constraints I cannot enumerate all the other sources, forms, and results of technical assistance in the banking area. I will only say that without sufficient and effective technical assistance, Bank of Russia would have been like a blind driver in heavy traffic.

Let me draw some final recommendations from Fischer’s inspiring paper. First, it would be desirable to strengthen the Fund’s coordination role in promoting banking soundness. It looks worthwhile to discuss the idea of setting up a coordination committee, consisting of representatives of the IMF, World Bank, Basle Committee, G-10, and several emerging-market countries on a rotating basis. Second, I would urge creation within the Fund of a separate unit responsible for issues of banking soundness. Third, the establishment of a Banking Sector Restructuring Fund deserves to be thought out in detail. Based on my experience, and further encouraged by Fischer’s paper, such a facility could prove highly useful.
Mr. Škreb wondered whether it would be possible to set uniform standards for bank soundness across countries, given widely differing economic environments. Mr. Kovacs asked about the interlinks between macroeconomic stabilization and banking sector soundness, noting that with a fragile system, macroeconomic stabilization measures could have significantly negative repercussion effects. Mr. Kovacs noted that the 1990–91 Hungarian stabilization resulted in a sharp decline in domestic demand and inflation that led to huge problems in the banking sector which became apparent after the 1992 introduction of a new banking law. In contrast, before the 1995 stabilization program the banking sector had been recapitalized, banking supervision had been improved and the banking sector had been “educated.” In this second round of stabilization, the banking sector did not deteriorate; in fact it appeared that banks had become “too” cautious, lending only to the “first quality” clients. Nana Amma Yeboaa stressed that restructuring might well concern the entire financial sector, rather than only the banking sector. Mr. Ilitchev noted that bank restructuring needed to go hand in hand with restructuring of the economy at large. A banking system could only operate if the market itself was efficient. In Bulgaria this was not the case. Insufficient and slow privatization of the enterprise sector had robbed the banks of investment opportunities. Mr. Thahane noted that bank restructuring in many African countries was inhibited by weak legal and regulatory framework, lack of trained personnel, and weak institutions. He suggested that the Internet might help to raise the level of sophistication in the near future.

In response, Mr. Fischer agreed that it was difficult to apply uniform standards across countries. But, notwithstanding large inter-country differences, it should be possible to develop a set of common principles, for instance in the area of accounting. He fully agreed with the need to support bank restructuring with other structural measures, especially also with privatization.
At the conclusion of the Sixth Seminar on Central Banking on “Frameworks for Monetary Stability: Policy Issues and Country Experiences” in March 1994, I remarked that the discussions had pointed “toward a critical area for central banking and monetary policy in the years ahead: the role of the monetary authority in fostering soundness and efficiency in financial markets.” In that context, I noted, “Besides posing serious challenges to monetary policy, deregulation and the opening of financial markets have brought the importance of supervision and prudential regulation to the forefront of monetary and financial management” and suggested that this subject might well lend itself as a theme for a forthcoming central banking seminar.1

Since then, bank and financial sector issues have attracted much attention, as made evident most recently by the specific reference in the September 29, 1996 Interim Committee’s declaration, Partnership for Sustainable Global Growth. This declaration included among its precepts the need to ensure “the soundness of banking systems through strong prudential regulation and supervision.”2 With the benefit of hindsight, it has been clearly appropriate to focus on the theme of banking soundness, and to set the issue in a global context given the growing interdependence of national economies. The widespread experience of banking crises in many countries over the past few years has made this topic of banking soundness even more relevant.

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1 See Manuel Guitián (1994a).
Although the focus of this paper will be on banking soundness, this is not to deny importance to the broader setting of financial sectors—on the contrary, banking soundness typically reflects a country’s overall financial soundness.

Since the Sixth Central Banking Seminar was held in March 1994, much work has been done in the IMF and elsewhere in the banking and financial area. As far as the IMF is concerned, and as Stanley Fischer just outlined (Chapter 2), the main modalities of institutional involvement are surveillance, conditionality, and technical assistance. I would like to add to these three categories of activity the IMF’s contribution to operational research in this field, a recent example of which is contained in Bank Soundness and Macroeconomic Policy by Carl-Johan Lindgren, Gillian Garcia, and Matthew Saal, as well as a growing number of IMF Working Papers on banking sector-related subjects. But work is also under way on payments systems, on bank restructuring strategies, and more generally, on the identification of possible frameworks for sound banking, both at the individual country level and internationally.3

The contributions of financial institutions in general, and of banks in particular, to broader economic performance and welfare are well established in the literature, and have been summarized elsewhere. Instead, I would like to focus on bank soundness as a key component of two distinct but interdependent and fundamental dimensions of monetary policy: price stability—or similarly, exchange rate stability, although this is typically a more controversial aim, of course—which has been increasingly accepted as the primary macroeconomic goal of monetary policy; and a second set of goals, which until recently have been largely overlooked in the context of evaluations of monetary management in general.4 Those goals are microeconomic in nature,

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3Payments systems and bank restructuring are subjects of concern to central banks because of their importance for the maintenance or the resumption of the proper functioning of the domestic banking sector. Central banks play a key role in large value or interbank payments systems in their setting standards for controlling the risks they entail as well as in providing finality, certainty to payments and, when appropriate, liquidity to support the system. Such liquidity provision and the implementation of proper bank restructuring strategies are key components of the systemic responsibilities of central banks. See Alan Greenspan (1997).

4Price stability is a key general economic policy goal itself; it can also be seen as a critical factor for securing the highest level living standards in the long run. This said, though, there is an ongoing debate on the relationship between monetary policy and short-term output stabilization and growth. For a recent examination of this relationship, see Guitián (1996a). The issue of exchange rate stability as a monetary policy goal has been discussed in Guitián (1994b).
related as they are to the attainment of a competitive and efficient banking sector and a smoothly functioning payments system—in other words, to the existence of a sound banking system. This apparent neglect over this other set of objectives probably reflects their microeconomic and sectoral nature, that is, their focus on a single sector of the economy and on the behavior of individual agents within that sector. Traditionally, these objectives have been viewed mainly from a regulatory perspective, involving, as they do, issues of banking supervision and prudential regulation, deposit insurance schemes, and lender-of-last-resort responsibilities, aspects typically seen as separate from the broad aims of macroeconomic management. And yet, those aspects represent a legitimate policy undertaking because a sound financial system helps the monetary authority achieve its price stability objective and because a sound and stable banking system has public good qualities in its own right. For these reasons, all central banks have an interest in systemic bank soundness, even where the regulatory and supervisory responsibilities lie elsewhere.\footnote{In Guitián (1993), the importance of these two interdependent monetary policy objectives is stressed, as is the relevance of a sound financial system for monetary control. Goldstein and Turner (1996) underline the ability that macroeconomic and financial policy have to complement each other. Goodhart and Schoenmaker (1993) look at the relationship between the two policy objectives, including the scope for a trade-off in their attainment. In this context, they examine the case for separating bank supervision responsibilities from the monetary policy activities of the central bank on the grounds of the possibility of conflict between the two policy objectives.}

In this essay, I will examine the macroeconomic and microeconomic objectives of monetary management, their interconnections, and the related interdependencies of internal governance of financial institutions by their owners and managers and external governance by market forces and government intervention. To this end, I will first review the two dimensions of monetary policy and their interaction. I will then turn to a discussion of the question of the boundary between the public and private sectors—that is, the issue of how bank supervision can buttress market discipline, given the externalities that arise in the context of banking and the need to safeguard financial stability, an important public good. Next, I will focus on the practical limitations that confront policy measures aimed at banking soundness and will discuss some alternatives proposed in the recent literature, following which I will offer a few concluding remarks.
Key Aims of Monetary Management

In common with other policy areas, monetary policy management has a macroeconomic, as well as a microeconomic dimension. Attention must be paid to both if monetary policy objectives are to be not only attained but also maintained.

Price Stability

The ample literature on monetary policy and central banking has largely focused on the macroeconomic objective of stability in the value of the national currency, which is increasingly seen as equivalent to domestic price level stability. For example, in his recent review of modern central banking presented at the Tercentenary of the Bank of England, Stanley Fischer began with the observation that the “practice and theory of modern central banking revolve around the inflationary tendencies inherent in the conflict between the short- and long-run effects of monetary expansion. . . .” While the review mentions bank supervision and its aim of stability of the financial system as one of a central bank’s functions and, indeed, one of the goals that central banks typically seek, its main theme is clearly a central bank’s responsibility for managing the supply of credit and money for purposes of price level discipline. In this sense, then, price stability has been at the center of monetary policy debate, while the microeconomic objective of a sound banking system was until very recently left in the background or overlooked.

This is not to say that microeconomic issues have been ignored in policy discussions and the academic literature. Quite the contrary, advances in the microeconomic foundations of monetary economics have been at the center of theoretical research. For example, the pioneering work on credibility by Finn Kydland and Edward Prescott (1977) underpins the heart the debate on central bank independence.
and the recent innovations in central bank institutional frameworks and their relevance for inflation targeting. Our understanding of the microeconomics of the banking industry has also evolved significantly over the past twenty years, particularly with respect to the role of asymmetric information and with discussions of the unique functions of banks in the financial sector. This said, though, their relevance in the context of debates about monetary policy objectives has paled relative to that granted to price level stability. The attention given to price stability has reflected a critical change in economic policy thinking during the last two decades, which is based on a broadening consensus that stable prices represent the best contribution monetary policy can make to the performance of the real economy. The consensus has been instrumental in helping bring about significant reductions in inflation rates in many countries.

Sound Banks and Price Stability

The attainment and maintenance of price stability, important though they are, do not exhaust the responsibilities of central banks; that is, even though they represent primary aims for the monetary authorities, they are not the only ones. It has long been recognized that appropriate macroeconomic policies are necessary to achieve balance in an economy, (a key element of which is price stability) but are not sufficient to maintain it unless supported by appropriate microeconomic conditions. Thus, policy prescriptions in general, including those developed at the IMF, increasingly incorporate structural measures aimed at improving microeconomic efficiency. Efforts to improve financial sector efficiency and soundness are often needed to support macroeconomic and monetary performance. There are, however, limits on what can be achieved through governmental policy action, and a central issue that deserves attention is that of achieving the best mix of official action and market forces to bring about a sound banking system. Such a system is typically defined as a sector made up of competitive and solvent banks, the maintenance of which can be considered a key microeconomic aim from the monetary policy stand-


The scope of the consensus is broader, encompassing the role of government and the limitations of policy. For a brief review of this subject see Guitián (1996a).
point. The overall microeconomic objective of a sound banking system is typically defined in terms of concepts such as solvency; however, as is the case with the macroeconomic goal of price stability, this concept involves some nuances. ¹¹ A most important question in this regard is how many vulnerable banks does it take to make a banking system unsound. ¹² The answer depends on the size of the banks in question as well as on the factors behind the individual bank's fragility. If a single bank or several small banks become insolvent due to unrelated events, such as, for example, their own separate individual mismanagement, then chances are that the overall system will continue operating smoothly and that the payments system and the intermediation process will be unaffected. In this case, a policy response beyond letting normal procedures operate to ensure orderly exiting or to allow for changes in management and appropriate private recapitalization of the affected banks would not be needed. However, if the solvency problem is more widespread, either because a common factor has affected the bulk of the banks or because contagion has spread individual bank difficulties throughout the system, then a specific policy response to safeguard the system will most likely be in order.

The traditional macroeconomic aim of price stability is supported by appropriate microeconomic conditions in several ways. First of all, a sound banking system is typically needed for monetary policy signals to be appropriately transmitted throughout the economy. ¹³ With vulnerable banks, the central bank's expectations of the linkages between policy instruments and performance in the economy will become more uncertain than is generally the case, rendering increasingly difficult the process of setting appropriate policies. With growing problems in the banking sector, the effectiveness of policy instruments will diminish as banks become unable to respond to monetary policy signals through timely changes in their balance sheets. In addition, distortions in bank managers' incentives on account of moral

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¹¹ For the macroeconomic objective, one nuance revolves around the practical definition and measurement of price stability. Federal Reserve Chairman Greenspan has defined price stability as the inflation rate that has no impact on private decisions and he has recently elaborated on the ambiguity that presently surrounds the notion of prices; see Greenspan (1997). See also Fischer (1996) for a summary of research on desired rates of inflation and Sarel (1996).


hazard and adverse selection risks will likely interfere with the transmission mechanism. They could also lead to inefficiencies in credit allocation and thus have additional negative implications for the real economy at large. On the other hand, when the banking system functions properly, the linkages between monetary policy instruments and economic performance will operate as generally expected in contributing both to policy effectiveness and efficiency.

A further constraint on macroeconomic management emanating from unsound bank positions is related to lender-of-last-resort interventions. In this case, the common policy tools, which involve changes in the central bank balance sheet, will affect the macroeconomic objective of price level stability as well as the microeconomic policy goals of safeguarding a banking system in distress. When monetary policy is rule based and aims at a particular path for monetary aggregates (or for the exchange rate), last-resort lending would be limited, if not explicitly prohibited, by the rule itself. Under more discretionary policy regimes, the monetary authority has more leeway to act as lender of last resort, but lending for microeconomic considerations could come at the expense of the desired macroeconomic policy path, particularly in situations where banking system problems are widespread and reflect insolvency more than mere illiquidity.

The relationship of sound banks to macroeconomic and monetary performance is bidirectional. Banks are "derivative" institutions in that their soundness and stability reflect those of the economy as a whole, and their own performance responds to macroeconomic policies. Awareness of this linkage might lead policymakers to respond to a problem in the banking system by deviating from their fundamental macroeconomic objective. For example, a tightening of liquidity called for by an overheating economy may not be implemented because of concern over the pressure that it may put on already weak banks by pushing up the costs of their funds. This problem can be all the more acute because one of the typical roles of banks is to transform maturities by holding shorter-term liabilities (deposits) against longer-term assets (loans). Without adequate hedging—which is not always available—banks are exposed to interest rate and liquidity risks. A policy tightening can cause depositors to demand higher returns or withdraw their funds, thereby placing pressure on bank earnings or liquidity. As we have seen in several cases over the last few years, a monetary tightening and the subsequent cooling of the economy can also have an impact on bank balance sheets by depress-

\[14\text{This is the essence of the case for separation of supervisory from monetary management responsibilities.}\]
ing loan values, since borrowers' ability to repay is adversely affected. Avoidance of risks such as these may tempt policymakers to sacrifice their aim of macroeconomic balance for the sake of protecting vulnerable banks, particularly when there is a concern that doing otherwise will endanger the sector as a whole. Thus, there are interaction and feedback effects between bank soundness and macroeconomic policy choices. Conflicts between the aims of price stability and bank soundness may be more apparent than real in that they entail basically an intertemporal trade-off; this is the choice of price stability today, for example, strict pursuit of this goal without regard to its consequences for the banking sector, versus price stability tomorrow, or the specific concern for the macroeconomic consequences of a systemic banking failure. The former approach risks tomorrow's stable price level in favor of today's; the latter, in contrast, risks today's for tomorrow's.15

Global Capital Markets and Bank Soundness

Except for the few references made in passing to exchange rate stability, the above analysis is generally cast in terms of a closed economy but it can be readily extended to an open economy model. In this context, as is well known, capital inflows affect monetary conditions through changes in the exchange rate or the monetary base, or both. How—and the extent to which—these changes are transmitted to the real economy will depend on the health of the banking sector and the ability of banks to adjust their balance sheets promptly and efficiently. This argument follows the same line of reasoning outlined for a closed economy, regardless of whether or not capital flows are sterilized. An important extension in the global context is the recognition of the exchange rate as a price that can adjust—or if required, be adjusted.16 Thus, in a global setting, monetary policy can not only affect the price level and ultimately the real economy but through

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15There are moral hazard risks in either approach. One relates to the credibility to be attached to a monetary policy that neglects banking sector conditions; the other relates to the consequences for inflationary expectations of a short-term departure from inflation targets.

16This analysis depends on the exchange regime that prevails in the economy. Under a fixed rate regime, capital flows will affect the central bank's balance sheet and by definition, there would be no impact on the exchange rate. See Guitián (1973 and 1974c). For an examination of capital account liberalization issues, see Peter Quirk and others (1995).
another channel, the exchange rate. In this context, the issue of banking system soundness need not be in itself of immediate importance to the extent that bank balance sheets and lending policies are not directly affected, although this is not very likely to occur in an environment open to international transactions. Even in that case, however, a sound banking system can become relevant because banks play a significant role in the provision of exchange services, which is typically the case in many countries. The parallel here to the closed economy model is the role of the banks in operating the domestic payments system. Such roles bring about positive externalities by facilitating trade—domestic and international respectively—and thus provide yet another justification for the central bank’s interest in sound banks. Finally, open capital markets can influence the incidence of monetary policy. Again, as fragility in the banking sector dampens bank responses to domestic policy signals, monetary policy is more likely to be affected by the exchange rate or the balance of payments (or both)—the latter having a direct impact on banks’ balance sheets and consequently on domestic price levels and interest rates.

An unsound banking system in an open economy can place constraints on macroeconomic policy options, just as was the case in a closed economy context. First, the central bank may be reluctant to allow an exchange rate depreciation that is needed for macroeconomic purposes when the adjustment would adversely affect weak banks. The concern here is typically that a depreciation could put direct pressure on banks with a foreign exchange asset/liability mismatch. Indirect pressure could also result from depreciation—triggered capital outflows and deposit withdrawals, or from a consequent reduction in the ability of bank customers to repay their foreign exchange loans. Second, as noted previously, when the monetary authority is committed to a fixed exchange rate, then the underlying monetary policy rule could constrain or proscribe lender-of-last-resort credit facilities. This would be most clearly the case in the context of a currency board arrangement, under which reserve money must be backed fully by foreign exchange reserves. Alternatively, if the monetary authority targets the exchange rate as part of a discretionary policy framework, it may be reluctant to offer lender-of-last-resort credit to weak banks, as the consequent increases in reserve money could jeopardize the

17This assumes that the exchange rate is also an objective of monetary policy—that is, that exchange policy is in the domain of the central bank. See Cottarelli (1994) for a discussion of this point in the context of central bank independence.

18Gonzalez-Hermosillo (1996) discusses the links between foreign exchange and bank soundness.
attainment of the exchange objective. Actually, a general issue yet to be settled in this context is the feasibility or the constraints of a rule-based approach to monetary policy in a setting where monetary and banking activities are both progressively diversified and interconnected. And similarly, the jury is still out on the extent to which discretion in monetary management can be effective in such a setting.

The dual and mutual interaction of macroeconomic and monetary policy with banking soundness observed in the domestic context, therefore, applies also in an open economy setting. Although they bring with them new opportunities for profit, open capital markets can also become potential sources of pressure on the banking system. For example, a rapid buildup in deposits stemming from capital inflows could potentially result in high-risk loans being added to the bank’s portfolio or could heighten risks by increasing currency or maturity mismatches, especially if the capital inflows are in short-term instruments. On the other hand, if the central bank attempts to sterilize those inflows, higher domestic interest rates could strain bank balance sheets. Intertemporal trade-offs similar to those described earlier in the context of a closed economy arise here in terms of exchange rate stability today versus tomorrow, of course.

**Microeconomic Aspects of Bank Soundness**

Banking soundness as a subject involves the following three aspects that reflect the role of banks in a modern market economy, all of which are of interest for central banks. Each of them has an element of a public good or gives rise to an externality that potentially calls for governmental oversight and intervention.

- **An efficient and stable payments system** to facilitate transactions throughout the economy, and with money as a medium of exchange, to free economic transactions from barter. The payments system must be robust because agents will only use it if they believe that they will not lose value in the transaction process.

- **Intermediation** between savers and investors to improve economic efficiency by helping to clear market for sources and uses of funds. Banks provide a valuable information service by screening investment projects and by bringing savers and investors together.

- **Financial market development**, a process to which a sound banking system typically contributes. As uncertainty is reduced and confidence increases, other financial markets may develop, further increasing opportunities to match investable funds with commercial projects.
Besides the safeguard and promotion of the above institutions and processes, government oversight and intervention through appropriate regulation and supervision can also be justified on the more general grounds of the unique nature of information. Information is a pure public good in that its consumption by one person does not reduce the supply to another. In the domain of banking, information comes into play on both the asset and liability sides of the ledger. On the liability side, a deposit is in essence an exchange of money today for a promise of its return, with interest, in the future. The future payment involves risk that can be assessed with information on the deposit bank. On the asset side, a bank loan typically requires knowledge about the borrower and his ability to repay. Availability of information is not similar, however, and banks are normally better equipped and in a better position to elicit and assess information from their potential borrowers than depositors are to obtain and evaluate it from banks. Thus, even though ultimately information can rarely be kept secret—a depositor seeing his neighbors withdrawing funds from their bank will in some circumstances conclude that the bank is not a safe place to keep money—it does exhibit an asymmetry that calls for a role by government in the form of oversight on banks to compensate for it.

Boundary Between the Private and Public Sectors

For a long time, the economic literature has recognized the difficulty of drawing a proper boundary for government action and of describing the limits of economic policy. Indeed, the issue of the optimal degree of government involvement in the economy is likely to remain unsettled, if only because the question of where to lay the appropriate boundary between the public and private sectors is dynamic and varies among countries and within a country over time. It depends on several issues, among them social preferences for public services and the corresponding willingness to finance them, neither of which are time-invariant; on the interaction between the two sectors of the economy, in particular, on the impact of government on private decisions; and on technology and innovation. Tensions in the overall interaction between the public and the private sectors typically derive from governments’ tendency to exploit short-term policy

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19See Stiglitz (1992) for elaboration on this point.
20See, for example, John Stuart Mill’s Principles of Political Economy (1965). In Guitián (1997), I have discussed the issues of the scope of government and the limits of economic policy in a more general context.
trade-offs, with consequent adverse effects on credibility; but they also arise as a result of the private sector's tendency to appropriate for itself the benefits but seek to shift the costs of its decisions to the public sector, that is, the general taxpayer.

Public sector involvement in banking is not exempt from these tensions. Globalization, innovation, and deregulation have clearly given impetus to reexamine the role of government in the banking and financial sector through regulation, supervision, and its ability to complement market forces. Public demands for deposit protection and concerns over how it should be structured and financed are clearly behind this impetus. The key questions, therefore, are the extent to which official banking supervision can be used to bolster market discipline, what the pitfalls to be avoided are, and which strategies are likely to offer the best results.

Rationale and Limits of Intervention

The textbook case for government involvement is made along three lines. First, on public goods grounds, such as national defense, clean air, and information. Goods of this nature should be provided collectively because all in society benefit and no one can be excluded from their consumption. Second, where conditions for a competitive equilibrium do not prevail, the associated market failure may justify government intervention in the form of corrective action to bring about an efficient outcome. And third, from the perspective of macroeconomic policy management, government intervention can be justified—or at least suggested—as a potential benefit to society as a whole. In this context, a stable economic environment can be considered a public good.

In these respects then, government involvement in the economy can be of benefit, but there can also be limitations and associated costs. In addition to the potential inefficiency of government activity, microeconomic analysis has shown that public involvement can distort private incentives. A classic example is the distortion to capital allocation and to labor decisions that may be caused by the structure of a tax system. More generally, moral hazard will tend to arise when

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21 In the area of macroeconomic management, growing doubts have arisen on the government's capability to steer the economy in a predetermined direction. Those doubts have been brought about by empirical evidence to the contrary as well as by developments in rational expectations and credibility theory, all of which led to reduced expectations on the government's ability to ensure the achievement of macroeconomic objectives.
there is uncertainty regarding the dividing line between private and public sector activities and responsibilities. The underlying prospect is that whenever discretionary policies allow for private risks to be shifted to the public sector, that is to the taxpayer, private agents will likely seize the opportunity and take on excess risk.22

**Intervention in the Banking Sector and Moral Hazard**

Because of its role in the payments and exchange systems and the positive externalities associated with financial intermediation, the services provided by a sound and stable banking sector are usually regarded as a public good. And as already pointed out, the asymmetry of information between banks and depositors and between banks and their borrowers can result in various forms of market failure. To these, we have to add the importance of bank soundness for monetary policy and macroeconomic management effectiveness. On all these grounds, some degree of government involvement is called for in the banking area, depending on public preferences and the scope for market failure that prevails in any given economy. As already noted, deregulation, globalization, and innovation have also given impetus to the reexamination of the role of government in the banking and financial sectors.

The traditional approaches to foster bank soundness combine deposit protection schemes, lender-of-last resort-facilities, and official supervision. All of them, however, are prone to giving rise to incentive problems and consequent moral hazard risks.23 Deposit insurance and lender-of-last resort support can limit the incentive of depositors and other creditors to monitor the performance and position of banks, to the extent that there are expectations that potential losses to depositors will be covered by the deposit insurance fund and that banks in distress will receive liquidity support from the central bank. Moreover, official oversight can have a similar effect if depositors and other bank creditors neglect assessing the situation, performance, and prospects of banks because they assume that official supervision is sufficient to ensure the health of the banking sector.

These drawbacks of the traditional approaches can be addressed in part through market discipline by undertaking measures to promote it,

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22As pointed out in Guitián (1997), there are serious fiscal considerations whenever the public sector takes on private risks.

23In a recent speech, Greenspan (1997) describes these risks as those that reflect the wedge created when decision makers collect the benefits but do not bear the full costs of their actions.
by devising regulatory and supervisory strategies that replicate as close as possible market forces. Deposit protection, for example, can be limited to safeguard small household accounts, so that beyond announced maximum caps, depositors will not be compensated; this will tend to shift the incentive to monitor banks back toward deposit holders. For such a shift to be effective, though, the rules governing deposit protection schemes and the line of demarcation between public and private responsibility, besides being absolutely clear, must be credible. Similarly, the norms for lender-of-last-resort activities are best spelled out with enough transparency in advance, so that stakeholders, including depositors, and other bank creditors, as well as bank managers and owners, do not operate under the assumption of anticipated support. The difficulty here is the bias toward intervention that accompanies situations where systemic repercussions appear likely. After all, monetary authorities can hardly be expected to wait and see whether ex post facto those systemic threats do or do not materialize. Yet, there is in this area also an argument for policy rules. Without clear rules, banks and the public at large may come to expect support to a weak banking system either through direct central bank lending or through an accommodative monetary policy stance.

Addressing moral hazard through transparent and clear norms on the scope of central bank intervention to save failing banks entails setting constraints on such activities, even though a clear idea of an optimal intervention is difficult to obtain. But there are a few notions that can be stressed from the outset; for example, that prudential regulation and official supervision cannot prevent all bank failures. Nor should they, as such an attitude would perpetuate the operation of weak and inefficient institutions, thus exacerbating moral hazard. The appropriate strategy in this area is to combine official oversight with reliance on market discipline so as to provide appropriate incentives to depositors, creditors, bank managers, and shareholders. This combination will involve governmental efforts to support market forces in the provision of information to the public at large, both directly and

24See for elaboration, Garcia (1997).
25There are complex issues at stake here, and often it is argued that constructive ambiguity is a better principle than transparency to follow in the exercise of lender-of-last-resort responsibilities. Such exercise always calls for an important measure of judgment, which some believe means "keeping the market guessing," and others think requires providing the market with "clear guidance."
26This would be equivalent to ascertaining an optimal level of bank soundness. Greenspan (1988) addresses the issue in terms of the social benefits of risk. See also Rivlin (1996).
more importantly, through the adoption of strict disclosure rules, such as those in effect in New Zealand.\footnote{See Nicholl (1996) and Brash (1997) for descriptions of New Zealand's supervisory arrangements and new disclosure regime for commercial banks.}

Here too there are questions regarding costs and effectiveness, particularly in settings where accounting standards and practices are deficient, or where market structures might preclude the operation of a firm exit policy. In principle, economic analysis can be used to appraise the trade-offs involved in the interaction of government with market forces. For example, the efficiency costs of full lender-of-last-resort support can be gauged against the gains of a more sound banking system. But experience demonstrates the difficulty of this endeavor. Indeed, the large number of banking sector problems over the past two decades underscores how much remains to be learned about the government's role in this area and, more important, about ways in which official oversight can complement internal bank governance and support as well as replicate market forces.

**Practical Limitations of Regulation and Supervision**

Given the difficulties in establishing a clear boundary for public sector involvement and in avoiding the consequent risk of moral hazard in private sector behavior, it could be argued that the best course of action would be to rely exclusively on market discipline. However, for the reasons already described, governments have shied away from allowing market forces to become the only guide for financial market activities and the only determinant of their outcome. Instead, countries have generally established some form of official oversight of their banking systems. The challenge governments contend with on this issue is to continuously adapt their oversight frameworks to changing circumstances. At present, the evolution of modern financial systems are rendering that challenge even more difficult as the speed of innovation in financial transactions accelerates, as does the progressive integration of national economies into a global setting.

**Internal Controls, Market Forces, and Prudential Regulation**

The Barings incident in 1995 highlighted the practical limits of what can be expected from official oversight. But it also underscored the need for persistent vigilance and the adaptation of prudential norms and supervisory practices to ever-changing activities of financial insti-
tutions. Barings was a case where the standard procedure of separating back office and trading operations was not followed, and both internal and external auditors failed to signal the procedural violation. The resulting moral hazard occurred at the operational level (with the trader) rather than with management, although the firm’s compensation policies encouraged the problem. Nevertheless, Barings was not a case where the interests of management and the external supervisors deviated; both would have wanted to have caught the “rogue” trader. Although in this specific case it is clear there was a failure in internal control systems, a general inference can be drawn that as financial institutions and their incentive packages, as well as the services they offer become more complex, it becomes harder for internal and external oversight to control all risk factors. In other words, in today’s integrated world financial environment, it will be important to make clear to policymakers and the general public that even when appropriate, let alone when they are faulty, internal controls, market discipline, and regulation and supervision cannot prevent all bank failures.

Similarly, financial innovation presents new challenges to all parties, and raises the question of whether the risks associated with new financial instruments and operations need to be addressed through new approaches to promote bank soundness. Derivative trading, for example, is not inherently riskier than spot trading; the payoffs of derivatives depend, after all, on the underlying instruments. Still, derivatives are typically leveraged, and they allow traders to take excessive risks through large positions; they can also be used to evade monitoring systems, particularly where managers, auditors, and supervisors are less familiar than the traders with the markets and instruments. Thus, an important issue is that managers, investors, and regulators may all have difficulty in keeping up with new financial products and in understanding the risks they carry. Yet, as Alan Greenspan has pointed out (1997), “if it is technology that has imparted occasional stress to markets, technology can be employed to contain it.”

Globalization poses special problems as well. First, global competition is contributing to an evolution in banking that is moving toward a less clear distinction between universal and specialized banks and a blurring of the separation between banks and other financial intermediaries, such as security firms and insurance companies. Second, the complexity of banking activities and operations increase when they extend to the international arena, posing difficult challenges to bank managers, owners, and regulators in the fulfillment of their respective responsibilities. Finally, banks operating in several countries can “arbitrage” between regulatory frameworks by undertaking operations in locations where regulations are most favorable for them.
Containing the scope for such arbitrage is an important task that requires international harmonization of national rules.

**Policy Adaptations**

Policy adaptations to address the growing challenges faced by regulators are evolving along several lines. First, *internal governance measures* can be taken that will enhance market discipline. Data publication and disclosure standards, such as those recently instituted by the IMF in the macroeconomic sphere, as well as those set out by International Accounting Standards (IAS) and the recent recommendations by the Basle Committee of Banking Supervision on disclosure of bank operations in derivatives, will raise the quality of bank governance, while at the same time help strengthen market discipline. The rationale here is that with increased and improved information, bank managers will perform more efficiently, and investors and depositors will be better able to monitor the institutions with which they deal.

Reinforcing certain *prudential norms* can both directly require banks to strengthen their financial position and also enhance incentives for bank owners and managers. For example, an increasing number of countries have adopted the Basle Committee capital adequacy standard, which not only calls on banks to maintain sufficient capital to cover potential losses, but also forces owners to put their own funds at stake, thus fostering their incentives to ensure banks are well operated. Acknowledgment of the role of market risk and the complexity of its measurement has led the Basle Committee to amend recently its 1988 Capital Adequacy Accord. The amendment recommends that banks be required to hold additional capital according to their exposure to market risk, which can be measured using either a standard or a proprietary model. This recommendation underscores the importance of appropriate statistical models to measure and monitor risk in financial institutions as a key support for the judgments that are critical for risk management.

Perhaps most important, a consensus is developing to give an increased emphasis to the need to ensure that internal governance and controls will not run counter to market discipline. This focus is justified because it is ultimately the responsibility of bank managers and owners to operate a sound bank and these parties are likely to understand their institutions' operations best. It is now generally accepted that incentive structures must be set up to enhance internal controls.28

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28See Goodhart (1996) for further elaboration.
Since most breakdowns occur when agreed procedures are not properly followed or implemented, accountability is essential and managers should be responsible for failures in their internal controls systems. Indeed, adherence to procedures should be monitored by internal auditors, with positions within the organization that accord to them a considerable degree of independence in the corporate structure. External supervisors can then focus on monitoring these arrangements. Last, but not least, market forces must be allowed to play their role. Without them, internal governance and official oversight will not be sufficient. Market discipline, to have its expected effect on economic performance, will have to be allowed to identify inefficient banks as well as the corresponding shortcomings in official supervision.

**Conclusion**

In general, price stability has been broadly recognized as the primary, if not the only, objective of monetary policy. Bank and banking system soundness, though also seen as important aims and therefore as matters of concern to central bankers, are relatively neglected goals. Partly because of the large incidence of banking problems, attitudes have recently changed, but also in reflection of the significant progress made in many countries in reducing their inflation to relatively low rates. Systemic bank soundness is now seen as a component of monetary management, as a complement to macroeconomic policy in general, and as a policy objective in its own right for the pursuit of economic balance and stability. To put it cryptically, sound money and sound banking go hand in hand.

How a sound banking system can be developed and sustained is therefore an important issue. Clearly, the ideal would be a market-based financial sector, in which private investors operate efficient banks and are accountable for their shortcomings. However, the presence of market failures combined with the public good characteristics and externalities stemming from the unique nature of banking activities does justify government intervention in the form of prudential regulation and supervision to bolster proper bank management, underpin market forces and correct for market failures, whenever these arise.

In today's environment, deregulation, globalization, and product innovation are making the job of bank regulators and supervisors more complex. Prompted in part by the potential problems implied by these changes—not to mention the banking crises witnessed over the
past few years—policymakers and researchers are now searching for explicit means to have supervision replicate market forces and to reinforce market discipline as well as to strengthen internal bank governance. These include accounting and disclosure norms to help depositors and investors assess bank efficiency and safety; a broadening of the range and scope of internationally accepted banking guidelines; and enhanced oversight of internal control processes. These means, combined with improved risk measurement methods through appropriate statistical models to guide bank management decisions and with incentive structures designed to contain excess risk taking, can go a long way toward fostering bank soundness.

But will all this be enough? It can hardly be denied, as a general proposition, that availability and disclosure of financial information are indeed relevant as ingredients toward banking efficiency, and all the more so in a setting of closely integrated international financial markets; actually, the case for the collection and broad dissemination of appropriate financial data is unassailable. Such data are as necessary for internal bank management as they are for the markets to be in a position to exercise discipline and for official supervisors to formulate their judgments. Similarly, the existence and broad observance within and across nations of proper prudential and supervisory norms as well as the pursuit of sound banking practices help provide a level playing field for banks, for market forces and for bank regulators, thus containing the margin for undue competitive wedges and the scope for regulatory arbitrage in search of a common denominator that may fall short of efficiency and equity requirements. And the introduction of adequate risk measurement techniques and efficient incentive structures will promote soundness and stability in banking.

This said, though, two important caveats must be made. One is that internal governance, official oversight, and market discipline will not be sufficient to eliminate the prospect of bank failures. All they can do is reduce their incidence and lower their probability. Another is that those three pillars of bank soundness will have to play their own role and cannot substitute for one another. When properly exercised, internal governance and external oversight combine with market forces to bring about efficiency in banking. In that sense, the whole is more than the sum of its three parts. As in many other areas of economic endeavor, in their functioning, the three elements exhibit aspects of substitutability as well as of complementarity. For exam-

29For a discussion of certain aspects of these questions see Guitián (1996b).
ple, market forces can and will compete with official oversight as a means to bring about proper bank governance. But official oversight, in promoting sound banking practices, provides market forces with useful guidance for the assessment of the appropriateness of bank management. And good bank governance eases the tasks of official oversight and bolsters market forces. Jointly, these three elements provide a key input toward the attainment of efficiency with stability in banking. The challenge here is to enhance their complementarity without impairing their substitutability, that is, their competitiveness. This will be, it hardly needs saying, a most difficult endeavor that entails striking an appropriate balance between the roles that bank governance, official oversight, and market discipline will be expected to play. This balance, which need be the same neither in all countries nor in a single country over time, is moving toward greater scope for market forces in the domain of banking supervision, a tendency similar to those that have developed in other areas of economic activity.

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MANUEL GUITIÁN


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Manuel Guitián has given us an excellent overview of the current issues related to banking soundness and the interaction between monetary policy and banking soundness.

My contribution is based on my practical experience as a central banker, with the point of departure being that of a small industrialized country. However, having been with the IMF, both as a staff member and later as a board member, I hope to be able to build a bridge between central bank experience and the IMF approach.

I should like first to concentrate on those elements in Guitián’s list of issues that, according to my practical experience, are the key ones and return to a more general assessment at the end of my comments.

The Nordic countries all experienced banking crises in the late 1980s and early 1990s. The problems in Denmark were of a lesser magnitude than those in Norway, Sweden, and Finland. Nevertheless, the problems of the banking sector in Denmark have subsequently been scrutinized by several government commissions with a view to determining how best to deal with banks in distress and how best to regulate the financial sector to avoid future problems.

The Result of Bad Loans

Banking problems are in almost all cases the result of loan losses. This was the reason for the problems in the Nordic countries, and it holds true for banks in all other parts of the world. Guitián refers to the case of Barings Bank. Of course, banks may get into trouble because of excessive risk taking using financial instruments, which is not discovered because of failure or fraud in their reporting systems. However, this is the exception rather than the rule. Also, positions related to financial instruments generally can be closed relatively easily, albeit of course with a loss.

When banking problems of a more systemic nature arise, it is always a matter of significant losses on loan portfolios. In such a situation banks cannot easily adjust their balance sheet structure, as no market will exist for selling loan portfolios.

At the same time it has to be borne in mind that it is the mere essence of banking activity to take credit risks. Banks’ prime task is to extend loans to companies and persons who are not able to attract
capital via the capital market because of information problems. Thus, losses on loan portfolios cannot be avoided, no matter how careful the credit assessment has been.

For individual banks, credit losses may be the result of a variety of factors, generally relating to management failures. In my experience, disclosure rules are of limited value in preventing bank failures. In virtually all cases we have experienced, there has been little warning. All had statements from their certified accountants that the capital requirement was met. On-site inspection remains warranted.

When several banks experience trouble at the same time, losses will generally, as noted by Guitián, mirror developments in the overall economy. There is no way of escaping this fundamental relationship. This applies whether the losses are the result of irresponsible policies or the consequence of a desirable policy action.

**High Solvency Requirements Are Key**

High solvency requirements are the simplest and most efficient way of reducing the risk of banking problems and limiting the cost of solving problems that arise. Ample capital, well above the legal minimum, enables banks to cover losses in tight economic times without facing insolvency. If a bank should lose a large portion of its capital base and no longer be able to meet the capital standards, it should be merged with a sound bank while there is still sufficient equity to pay for the merger. High capital requirements will contribute to the success of such a policy. Of course, capital cannot be raised overnight and is particularly difficult to raise during times of pressure on the banking sector. Thus, high minimum capital requirements should be put into place at a time when the banking sector foresees good earnings.

**Large Costs to the Public**

No matter the cause, when credit losses of banks become excessive, public intervention will be called for. Most politicians will agree with the textbook statement that banks, like any other kind of enterprise, should be allowed to fail. This is the way to ensure that banks are disciplined by market forces and thus to strike a proper balance with the moral hazard of government involvement. Deposit protection schemes, supervision, and the existence of a lender of last resort are some of the means to maintain public confidence in the banking sector.

However, when a bank gets into trouble, politicians find it very difficult to accept the consequences of market forces: a too-big-to-fail
doctrine has long been accepted. Systemic arguments such as that of domino effects on other banks do not generally apply to smaller banks; nevertheless, in many countries, even small banks may be considered "too big to fail." Losses to depositors cannot readily be accepted, not even when deposit insurance schemes are fairly generous. In addition, a bank failure implies problems for depositors and debtors in meeting their current payment obligations, a subject I shall deal with later in my comments. Thus, there will always be pressure to save a failing bank.

The expenditures associated with the public saving of a bank can be quite large. Adding together all forms of public expenditure in relation to saving banks in the Nordic countries in the recent past yields figures from 0.4 percent of GDP in Denmark to around 4 percent in Norway and Sweden and 8 percent in Finland. It should be noted, though, that the types of financial support differ from country to country and from case to case. Making loans or issuing a guarantee is different from injecting capital or covering losses with direct transfers. Much of the public outlay seems likely to be recovered in some of the countries.

Focus on Transfer of Loans and Deposits

Bank failures should always carry the full consequences for management and shareholders. A firm exit policy is called for. However, in a difficult economic climate, both depositors and debtors tend to be seriously hit by bank failure. One factor is capital loss; however, increasingly, lack of liquidity is becoming the problem.

The core area of banking is the financing of loans with long maturity out of deposits that may be withdrawn on short notice. But a bank is also a crucial element in a modern payment system. Payments are increasingly made by moving deposits or using credit in banks. If a bank goes into bankruptcy, deposits and credits may be locked for some time. This is increasingly considered socially unacceptable.

Thus, in order to maintain market discipline and let failing banks go down, traditional principles have to be adjusted. A too-big-to-fail doctrine has to give way to a too-important-to-fail policy, with rescue dependent on the overall economic setting. As a consequence, traditional lender-of-last-resort policies of a central bank have to be as flexible as ever.

Efforts should concentrate on transferring the deposits and loans of a failing bank to another bank and allowing the remaining shell to go bankrupt, which can generally be done without major ramifications. If
the activities of a failing bank are sold immediately, government involvement can be kept to a minimum. This approach has major advantages because of the potential for conflicts between commercial interests and political constraints.

Among the Nordic countries Denmark has adhered most closely to this strategy, but Finland and Sweden have established bad banks, that is, transferred the bank loans to other institutions. Government involvement would be further reduced as assets of bad banks are sold off to other institutions. However, the size of the bad banks, uncertainty about their value, and potential legal risks tend to reduce the price another bank will pay, and bad banks are therefore still on the government books in all three countries.

**The IMF Approach and Banking Soundness**

Two mantras of the IMF approach are “a stable economic framework” and “case by case.” It is easy to see how a stable economic framework fits into the lessons from the Nordic experience. Indeed, a stable economic framework is the single most important factor in avoiding major swings in the economy and thus in reducing banking problems resulting from problem loans. In such circumstances, high solvency requirements should in most cases keep banks on the safe side. The more sophisticated elements of the Basle Committee rules may not need to be adopted in all countries.

Problems arise if the economy is out of balance at the outset, which is the case in most of the transition economies and other economies with Fund programs. Economic policies (including monetary policy) usually by necessity create volatility. In the short term, the economy is likely to experience a recession, inflation will fall, and relative prices will change. This is almost a recipe for creating bad loans and banking problems. If an economy is facing major problems, there is little that can be done to avoid banking problems. Postponing or stretching economic reform and possibly pursuing a policy of forbearance vis-à-vis the banking sector is likely only to create subsequent problems. It will create the potential for moral hazard problems by keeping banks that are essentially insolvent alive, and will give rise to large swings in the velocity of money as confidence in banks shifts. Thus, the cost may well be larger than the cost incurred by sticking to a normal pace of economic reform.

The problems of the banking sector must be tackled directly. A preestablished strategy for handling such situations is important, especially ensuring that the necessary legal framework is in place for
forcing judgment against borrowers. This approach also involves a strategy for depositors and debtors; that is, establishing the extent to which depositors will be compensated for their losses and how liquidity of part of the deposits can be restored. The strategy should be implemented rapidly so that the economy does not experience a liquidity crunch. The problems and their relative importance will differ from case to case; however, for these countries there seems in most instances to be no choice between banking soundness and appropriate monetary policies.

**Concluding Remarks**

The relationship between monetary policy and banking soundness should normally be a one-way street. The choice of monetary policy strategy will influence how banking soundness is best achieved. Of course, as part of monetary policy formulation, the implications of the situation in the banking sector should be assessed. However, considerations relating to banking soundness should in most instances not influence monetary policy stance.

Coming back to the beginning of Manuel Guitián’s remarks, you will not be surprised that I would rather change the title to “Banking Soundness: Another Dimension of Central Banking.” This is in no way meant to deny the tremendous importance of establishing a competitive and efficient banking sector and a smoothly functioning payments system. Actually, in the past four years I have spent most of my time on these issues. However, they remain of a different order.
Ms. Arraes questioned whether the supervisory function should be in the central bank or be separated in a special institution, given the interactions between monetary policy and bank soundness. Mr. Le inquired whether the question was to achieve nominal or real stability. Mr. Wang stressed the need to balance the role of the market relative to that of the supervisors. Only an optimal combination of the two was likely to achieve a socially optimal number of bank failures. Governments, relying on supervisors alone, would probably bring about too few bank bankruptcies; the market, not taking account of systemic issues, would bring about too many.

Mr. Guitián responded, concerning the location of banking supervision, that the important issue was the need for the central bank to be aware of the situation of the banking sector. This could be achieved with banking supervision inside or outside the central bank. There were arguments, and well functioning examples, for either system. On exchange rate stability, Mr. Guitián clarified that he had not meant exchange rate fixity. The final policy objective for monetary policy was to achieve a low level of inflation; that was helped by a stable exchange rate. He agreed that the exchange rate had to also be consistent with an absorbable level of capital flows, which in some cases might imply increasing the variability of the rate. On the role of market forces compared to supervision, Mr. Guitián noted that there was a noticeable trend toward “more market.” All regulations now try to “mirror the market” rather than work against it.
Part II

Banking Soundness and Global Capital Markets
There are many topics that one might cover in a paper presented at a seminar on banking soundness and monetary policy in a world of global capital markets. One could speak about banking; or about soundness; or monetary policy. And then there is the central issue, namely global capital markets, with the emphasis on markets because that is where the constraints and the opportunities come into play. In principle, one can address these broad topics from either a domestic perspective, or an international perspective. However, “globalization” implies that the distinction between the domestic and international arenas becomes blurred. As a matter of fact, in a global environment it is hard to think of anything remaining purely domestic.

In this paper, I will touch on each of these three main topics and how they are interrelated. First, I will make some general observations about banking sector problems in a global setting. A key point is that banking system soundness is interlinked with macroeconomic policies and performance in a number of ways. In particular, the monetary authority cannot pursue medium-term price stability without a sound banking system and without appropriate fiscal policies. In the second part of the paper, I turn to Israel’s experience in dealing with inflation and the exchange rate when capital markets were opened as a means of illustrating the impact of capital mobility on central bank operations geared toward price stability. This practical experience with globalization highlights the difficulties posed by free capital movement and again the overall importance of sound policies. In this context, the central bank cannot achieve price stability on its own: it must work in partnership with the government to control spending or cut deficits when necessary.
Some Thoughts About Banking Problems

To begin, it is clear when one is speaking broadly on the issue of banking soundness or more narrowly about a specific country’s experiences, banking problems are no longer the esoteric subject they used to be. Just a few decades ago, banking dealt with the right and left sides of the balance sheet, and the relevant multipliers. The concept of crisis was not part of the picture. Yet, today, banking problems are prevalent both in industrial countries and in developing ones, and their implications and resolutions are of great concern.

Banking crises inflict high costs and lead to macroeconomic disruptions. So this issue is of interest to bankers and nonbankers alike. The causality also works in the other direction: macroeconomic disruptions, in an environment of global capital markets, can lead to banking crises. This observation has important implications for the design of macroeconomic policies. In previous seminars organized by the IMF, this two-way relationship has been a major theme, with the conclusion that one needs to follow stable macroeconomic policies so as to minimize the likelihood of macroeconomic disruptions and systemic problems in the banking sector. But, by the same token, one needs to follow sound banking principles so as to minimize the likelihood of banking crises and their implications for the macroeconomy.

The question is this: how can one assure the development of sound macroeconomic policies as well as that of a stable banking system? When the chancellor of the exchequer, Kenneth Clark, gave a speech saying he was against a boom, many people in the audience wondered how a finance minister could ever be against a boom. And his answer was that a boom must be followed by a bust; otherwise, it would not have been called a boom in the first place. A boom is not sustainable growth. A similar concept applies also to financial markets and banks, because as Michael Mussa (Director of the IMF’s Research Department) once indicated, the difficulties that are experienced by the banking sector relate to some extent to the macroeconomic cycle of boom and bust. During booms, banks often extend risky loans, and those risky loans turn sour during the bust. This risk is greater when the boom is induced by capital inflows that lead to excessive bank lending, especially, for consumption or for real estate. These flows create the ingredients of a potential bubble, which once it bursts may quickly deflate the whole economy. This then creates pressure on the banking system, and these pressures can be aggravated by the authorities if they delay the necessary remedy, thereby causing a (potential) loss of confidence.
Now, what is needed to promote sound banking? Sound banking requires effective regulation and effective supervision leading to the strict maintenance of capital adequacy ratios. These regulations should also facilitate governance and market discipline through improved information and better transparency. But more generally, sound banking cannot be a static concept because globalization itself is dynamic. And if globalization is a dynamic concept, so are the innovations in the capital markets. And if financial instruments and practices are evolving, so must the regulatory and the supervisory capacity evolve. Therefore, the concept of sound banking itself should always be dynamic. That means that many of the points made in this volume will be obsolete in ten years due to dynamic developments in this domain.

**Intervention, Market Discipline, and Fundamentals**

Israel, over the past few years, has transformed its exchange rate system. The authorities have intervened at several points to lend credibility to the exchange rate system and to reduce the capital inflows resulting from an appreciation of the currency. But as interest rates were raised to deal with the inflation problem, markets did not expect the authorities to allow an appreciation of the currency because they wanted to protect export profitability. But this implied that uncovered interest arbitrage became a more or less riskless operation or a one-way bet. At some stage, the central bank therefore decided to stop intervening. As we stopped intervening, a major debate ensued because the central bank stopped providing certainty to the markets, and suddenly the business sector was faced with additional risk.

In the end, such worries were unfounded. A short time after the central bank stopped intervening, the volume of transactions in Israel’s forward markets, in other related financial instruments, and in the so-called derivatives markets tripled and then quadrupled. Basically, the business sector found its own way to reduce risk related to the exchange rate mechanism.

It is argued that covering risk in the financial market is not free of charge, but this is a fallacy since the intervention in the foreign exchange market itself is hardly free. It is costly to the economy for a variety of reasons. There are the budgetary implications to long-term intervention, since the central bank must have the capacity to sterilize the intervention. But economically speaking, intervention in and of itself does not necessarily reduce risk. It only shifts it around in the economic system, and possibly makes it even more costly. But in any
event, no intervention can right a situation in which fundamentals are out of equilibrium.

Therefore, since sooner or later the fundamentals must be brought into balance, it is better to do so before the problem gets too big. This is true for intervention, and it is true for banking. Regulators should never let a problem in the banking sector become too big, because then the syndrome called "too big to fail" arises. Powerful political interest groups will attempt to protect a large bank that is in trouble. Then all additional interest groups will start to put pressure on policymakers, and before long, there is a budget crisis (as in Israel), a savings and loan crisis (as in the United States), a social security crisis, or a pension system crisis—all crises that could have been avoided had the underlying problem been addressed earlier. An important lesson is this: deal with a banking problem promptly, because it will only worsen with time and by then the central bank will have lost credibility and stronger measures will be needed to achieve any given results.

If that is the case, and the problem becomes too big, then a lot of excuses will be offered as a rationale for delaying the necessary, painful measures and instead temporary steps will be introduced. Yet, there is nothing more permanent than a temporary measure. The temptation to adopt the wrong policies and, therefore, to lose credibility is one of the major reasons to deal with problems at an early stage. The policymaker's main asset is credibility, and one should always remember that credibility is never owned, it is only rented.

Now, the less credibility accorded to a central bank, the smaller is the authorities' capacity to deal with the problem at hand. This relates mainly to the short term. As far as the medium term is concerned, structural issues, such as a country's level of financial market development, are the dominant influence. Intervention, by its nature, contravenes the market, and the more a central bank uses intervention, the more likely it is the development of market mechanisms may be slowed. With intervention, there is the illusory feeling of providing certainty to market participants, and with this a consequent complacency about the need for more sophisticated financial instruments that would strengthen the capacity of the system to withstand storms and stress.

A final remark in this regard—again, drawn from Israel's experience—has to do with countries that have not yet completed financial liberalization. Without full financial liberalization, whether in the banking sector or other areas, some of the authorities may be excessively reluctant to open up the economy, to dismantle controls, and to agree to the deregulation and integration of capital markets. Each time, one hears apologetic slogans in favor of keeping the underde-
Capital Mobility and Its Impact on Operations of a Central Bank

veloped system in place. Frequently, this paternalistic approach retards the development of the capital market, thus preventing its integration into world markets and providing a false sense of security. In reality, the only way to ensure thriving capital markets is by adding depth and breadth, which is done by letting more and more swimmers into this pond. Then growth and maturation will occur.

But when a country liberalizes its capital market, should it be done slowly or rapidly? For a long time, I believed the answer was similar to the sequencing approach developed at the IMF—first do this, second do that, and so forth. Indeed, these rules make a lot of theoretical sense. However, I now think, largely because of the political realities faced by central banks, that whenever an opportunity to liberalize arises, one should seize it and not wait until all the preconditions are in place. In France, Pierre Mendès-France once tried to convince the French to stop drinking alcohol and to drink milk instead. A big sign was hung up in the metro of Paris that read: “Don’t drink alcohol. It will kill you slowly.” And somebody added a note underneath, saying, “That’s okay. I’m not in a hurry.” When it comes to reforms, then—and to those touching on banking soundness, supervision, regulation, and harmonization, in particular—one probably should be in a hurry.

With regard to lenders of last resort, the rationale is to provide relief to illiquid banks that otherwise are solvent. This supply of liquidity is intended to reduce the likelihood that a specific bank, or specific banks, in trouble will behave irrationally in the short term, such as trying to raise liquid funds at all costs. In addition, there are systemic considerations, as one bank failure undermines confidence in the banking system as a whole.

There is also a countervailing systemic issue, which comes from the danger of too frequent use and indiscriminate application of the lender-of-last-resort principle. This is moral hazard: if the lender-of-last-resort principle is invoked too frequently, it destroys an important regulatory mechanism, not that of a bureaucrat but that of the market. So one must allow for some failures to take place: some shareholders must lose, some managers must be replaced, where depositors are protected. The very knowledge that such a possibility exists may provide very effective disciplinary market-based regulation, which might contribute to the soundness of banking. I cannot overemphasize this point.

All this said, it is important to remember the primary role of central banking: to maintain price stability. If a country has high inflation, then it needs to be lowered to a stable rate. However, in many countries, the law also places bank supervision under the central bank’s jurisdiction, thus raising a possible conflict between the two objec-
Occasionally it may be necessary to inject liquidity to save the bank, but at the same time it may also be necessary to withdraw liquidity to preserve price stability. What does a central banker do?

To begin with, he or she should make sure that the lender-of-last-resort injection is done as rarely as possible. This is the biggest exception. Manuel Guitián in his writings (for example, see Chapter 3) emphasizes this point time and again: engage in preventive medicine rather than deal with physicians once you are ill. What is true in medicine is also true in banking, as well as in economics. In this way, the alleged conflict between the short term and the long term can usually be resolved.

**Specifics of the Israeli Experience**

Now I would like to discuss Israel’s experience in dealing with inflation, the exchange rate system, and capital market development, in other words, how does capital mobility impact on central bank operations. I begin with some of the background.

In the first half of the 1980s, Israel experienced hyperinflation, up to 450 percent a year (Figure 1). It then successfully implemented a stabilization program, which enabled a very significant reduction in inflation. Following this, inflation got stuck for several years—from 1986 to 1991—at an average rate of 18 percent. Not satisfied with this result, Israel adopted a new system that enabled it to cut inflation by about half. With respect to the future, it has adopted inflation targets aimed at achieving a continuous reduction in inflation.

The Israeli stabilization program used a multiplicity of nominal anchors, and one of the first was the exchange rate of the dollar, which was held stable for a while. Subsequently, the country moved to a basket of currencies as an anchor and held that exchange rate basket steady until the late 1980s (see Figure 2).

At this point, the authorities realized something was not working. Inflation was about 18 percent and the exchange rate was fixed. Obviously there was a real appreciation of the currency and from time to time there was a need to adjust. But once an adjustment was made, the markets began to guess when the next adjustment would take place. At this point in time the capital markets were still relatively closed, and difficulties from world markets were not an issue. In 1989, Israel decided to adopt an exchange rate band (see Figure 3).

In the first stage of the band, the exchange rate was formally allowed to vary by 3 percent on each side from the central rate. Since inflation persisted, an adjustment of the band was needed. The band
Figure 1. Rate of Inflation
(In percent)
Figure 2. The Israeli Shekel Exchange Rate
Vis-à-Vis the Basket and the U.S. Dollar
(July 1985–May 1989)
Figure 3. The Horizontal Band System: The Israeli Shekel Exchange Rate Vis-à-Vis the Basket (January 1989—March 1992)
was shifted upward, but again inflation persisted, and the band was readjusted. In the course of this manipulation, the band was widened to 5 percent on each side, which did not help much and, with inflation continuing to be a problem, subsequent adjustments occurred: each time the exchange rate reached the top of the band, the band was adjusted. Somehow it seemed as though we were chasing our own tail.

In December 1991, the Bank of Israel decided to adopt the diagonal exchange rate band (see Figure 4). With its adoption it was very important to decide on three parameters. First, at what position should the central parity be? Second, what slope should it have? And, third, what should be the width of the band? With respect to the slope, which is the key parameter, the Bank of Israel made a strategic decision: it did not opt for a horizontal band because it would have been illusory. A horizontal band could not be sustained as long as Israeli domestic inflation exceeded that of its major trading partners. The central bank decided to use its central rate as a macroeconomic variable, so that if the inflation target is say, 12 percent, and inflation abroad is about 3 percent, then the slope should be about 9 percent. Thus, from the point of view of the exchange rate, the country does not have a built-in appreciation of the currency as an integral part of its system. Such an appreciation may still occur, but it depends on other things in the system. Figure 4 shows this slope started to decline gradually, as inflation started to come down. Initially, the slope was 9 percent, then it became 8 percent, and later 6 percent. Today, it is still 6 percent.

Concerning the width of the band, the exchange rate has been moving within the band, up and down, and the interest rate has been actively used to fight inflation. But when the domestic interest rate was raised, capital flowed in—in response to the differential in expected returns. And as capital came in, the domestic currency started to appreciate, and then competitiveness started to erode. At that stage, the Bank of Israel had to decide what to do.

It could print more money, thereby creating a nominal depreciation, knowing full well that it was a short-term solution because, before long, prices and wages would go up and erase any real effect from the depreciation. If no real depreciation is achieved, there will be no result except for raising inflation. Or, alternatively, it could try to maintain monetary control. But to do so means being able to sterilize all the purchases of foreign exchange by the central bank to protect the exchange rate.

The first condition, then, to adopting such a system is that if a country wants to have an open capital account while trying to disinflate, it must be sure that its monetary policy still has bite in the economy.
Figure 4. The Crawling Band System: The Israeli Shekel Exchange Rate Vis-à-Vis the Basket (October 1991–June 1997)
And how can it have bite? It must allow the currency to appreciate when the interest rate goes up. If at some stage it has to intervene, it should delay doing so as much as possible. When it does intervene, it should make sure it has enough instruments to sterilize the monetary injection.

The second condition is to have the monetary instruments available to sterilize the intervention. Obviously sterilized intervention cannot go on for very long. If authorities open up the capital account, they should be prepared to widen the exchange rate band sufficiently. Here, indeed, Israel did widen its band, but it did not help much because the interest rate remained high, and the currency appreciated. Once it has reached the floor (fully appreciated within the band), the degrees of freedom for policy become very limited: either lower the interest rate and give up the band, which is a "stop and go" situation, or alternatively follow the Chilean example and spread sand in the wheels, namely, tax capital inflows, which is very difficult to recommend. If a country does not have capital controls, it should not impose them; if it does have them, it should think twice before dismantling them. It is a one-way street, since it is very difficult to enforce capital controls after markets get used to free capital movements.

What, then, are a central bank's options? Here, the government, the fiscal authorities, play a role. One of the reasons why raising interest rates causes appreciation of the currency is because government spending does not adjust. If at the same time that the monetary authority raises interest rates the policy mix remains sensible—namely, the government cuts its spending or cuts its deficit—then one creates room for offsetting the appreciation in real terms. A cut in government spending creates the potential for a real depreciation; and a rise in the interest rate facilitates the potential for a real appreciation, particularly in the short run. Thus, to prevent a real appreciation, policymakers should make sure that the budget is indeed, contractionary, or less expansionary, at the time that a contractionary monetary policy is planned.

Finally, in this regard, one should never allow the fight against inflation to be viewed as the sole concern of the central bank. It must be the decision of the government as a whole. Why? After all, is not the independence of the central bank desirable? Why is the government needed as a partner? Here an important distinction must be made between independence of objectives and independence of instruments and the capacity to implement policy. In democracies, the objectives must be set by the government. Therefore, the central bank should not work against the government's objectives when fighting inflation. Fighting inflation should be the government's objective. Independence
simply allows the central bank to decide how to use the tools at its disposal to carry out the policy laid out by the government.

**Conclusion**

How does this partnership between monetary and fiscal authorities relate to the broad theme of banking soundness? It links through the fact that a fragile banking environment ties a monetary authority's hands, because it is very difficult to implement a sensible monetary policy in such an environment. There are many reasons, and the government will find them all, why not to fight inflation when the banks are fragile.

Therefore, to carry out an anti-inflation policy in a medium-term perspective—the only perspective in which one can fight inflation—one must make sure that the two true preconditions are in place: that the fiscal policy in place does not overburden the budget, and that the soundness of banking be assured, because fighting inflation is going to be pretty tough on banks. When interest rates are raised, those banks whose lending portfolios are not fully robust may face difficulties. A stable overall banking environment thus gives the anti-inflation stance a chance to prevail, which is the primary role of monetary policy.
Jacob Frenkel's paper provides an impressive survey of the issues involved in this very topical marriage of prudential and macro globalization issues. It reminds us that globalization is not always "love at first sight" and that countries can be ill-prepared suitors at the altar of banking soundness. Globalization has many components: geopolitical developments, the breakdown of cultural and social barriers, increasing awareness of the value of information, rapidly advancing information and banking technology, as well as capital account liberalization. In my remarks, I will concentrate on the latter, and its connections with banking soundness.

In examining the issue, one must look very closely at two important and interwoven questions. First, how can prudential policies, most often implemented by the central bank, help to deal with the effects of freedom for international capital flows? Second, and no less important, how can exchange controls—also a central bank responsibility in a number of countries—contribute to improving the soundness of the banking system? Central bank operations clearly lie at the heart of both questions.

The prudential instrument impinging most directly on the globalized capital flows is the foreign exchange exposure limit. In the simpler version, for each single currency the net open position is calculated by summing up spot, forward, and options trading positions with the total exposure exceeding a certain percentage of the bank's capital. (More sophisticated model-based approaches have the same principle.) Relating this instrument to large capital inflows and outflows two key points can be made:

- The calculation is for individual banks. At the macro level, capital flows need not be constrained as they move through the banks that have the capacity to handle them.
- Exposure limits do not apply only to those nonresident spot transactions that make up the capital account. A bank's hedging to ensure compliance with the exposure limits may take place through resident transactions denominated in foreign exchange, such as foreign exchange deposits or lending. (Such facilities often substitute for forward markets in less developed systems.) Moreover, the capital flows themselves may reflect hedging of current account transactions.
Comment

85

- Capital inflows and outflows therefore do not necessarily lead to excessive foreign exchange risk, and foreign exchange exposure limits do not necessarily limit capital inflows and outflows. But the exposure limits do limit the buildup of foreign exchange risk that can result from sustained capital inflows and outflows that are not otherwise hedged.

Also, to the extent that the capital flows are intermediated by the domestic banking system, other central bank prudential limitations may play a role.

- Limits on each bank's capital-asset ratios. For example, lending abroad can be sterilized by reduced lending domestically. But here again, the macro impact of the prudential limit is diluted to the extent that individual banks are above the limit.

- Reserve requirements may be seen to retain a prudential role in some countries. If remunerated differentially, that is, by a higher reserve requirement or lower rate of remuneration for foreign currency deposits, then the indirect exchange tax can influence capital inflows or outflows. But it has to be clear that this is not a prudential function—it is macro policy (almost a multiple currency practice on capital, in the rubric of the IMF), and a policy that has proven very difficult to make effective, in part because of the indirectness of the tax.

If the capital flows are not intermediated by the banking system, the effects of a lack of soundness of the nonresident investments are indirect in terms of banking soundness. Direct or portfolio investments by foreigners that fail can have domestic prudential effects to the extent that there are domestic partners, or knock-on effects on domestic investments that in turn impact on the domestic banking system. But the primary impact is on the foreign investors.

What does this mean for policies of financial liberalization, particularly those that liberalize flows of capital and promote globalization? As the commonly used prudential measures of risk suggest, globalization need not lead to banking system unsoundness. If capital inflows are excessive, then there are macro policy responses available—for example, such tactics as reducing the fiscal deficit to "crowd in" the inflows, moving to greater exchange rate flexibility, or lowering an administered domestic interest structure that has been set too high.

However, even if these "first-best" macro policies are in place, confidence effects of financial liberalization on money demand can produce expansion of banking business that is sufficiently rapid and sustained to lower significantly the quality of bank's assets. One saving grace is that, at an early stage of financial reform, rates of return
to capital are sufficiently high overall that some losses can be tolerated without systemic consequences.

Given this background, has capital liberalization actually led to banking sector problems in the liberalizing countries? Some empirical evidence can be gleaned from the Lindgren, Garcia, and Saal study mentioned by Mr. Frenkel. Of the 34 countries surveyed that experienced such problems, only Argentina and Chile in the early 1980s, and recently Thailand can be identified as countries in which capital liberalization may have played a significant role because prudential regulation and supervision had not been sufficiently developed. Let me turn now to the $64 billion question: should capital liberalization proceed without a developed prudential framework? What should be the sequencing at this point?

Frenkel observes correctly that globalization is a fact of life. In countries that have capital controls, which are not enforced or are enforced ineffectively, the question is not even relevant. Many studies find the effective degree of global integration to be very high even in countries with exchange control regulations on the books. All that remains in such countries is the lack of credibility for a government and legal system that says one thing, but does another. I should add that, owing to leads and lags, the effectiveness of controls on short-term capital is particularly hard to ensure.

However, if the capital controls are enforceable to a significant degree in a country, then the sequencing issue will be relevant for that country. Should liberalization then be delayed? This is probably not a good idea. Rather, liberalization should be introduced parallel with the accelerated development of prudential systems. The period after capital liberalization is typically matched by capital inflows that accumulate over several years corresponding to remonetization. This provides a window of opportunity to improve supervisory systems—over, say, the next year or two. (Exchange control staff can be retrained for the supervision.)

But what if this window of opportunity is neglected? Consider the example of Venezuela. In 1989, the Venezuelan government put in place a stabilization and reform program that was remarkable in its

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depth and comprehensiveness. Venezuela’s financial performance improved sharply in 1990 as activity recovered strongly, inflation declined, and the balance of payments strengthened. However, performance although positive, subsequently deteriorated as a fiscal imbalance reemerged in 1991 and widened in 1992. In 1993, the economy contracted, and the combination of poor fiscal, monetary, and supervisory policies, and political uncertainty caused full-blown exchange and banking crises. In June 1994, the government reimposed exchange controls and tightened monetary policy. The balance of payments registered an improvement—but only through the fourth quarter of 1994. It also commenced a program to improve banking supervision and liberalize interest rates. The exchange controls were dropped again in April 1996, since it had long ago become apparent that they were ineffective. Under the new approach, the main policy tools to deal with unexpected capital inflows were exchange rate and interest rate flexibility, to the extent that sterilization could not be achieved with domestic credit. By mid-1996, progress in banking supervision was being reported, although several banks remained weak, and by early 1997 the formal state of financial emergency remained, as some actions remained to be completed.

Should Venezuela have delayed the liberalization of the capital account in the initial reform program? I think that the answer is clearly no. The available evidence in 1989 and the experience in 1994 with the reintroduction of exchange controls suggests only a brief period of effectiveness—one or two quarters as against the several years that it takes to develop an adequate supervisory system. Moreover, there is little evidence that the banking crisis grew out of external sector difficulties, so that capital controls would not have addressed the root of the problem. No need to compound the second bests. The empirical results reported in the study I mentioned earlier suggest that this last point has some general applicability.

Another question raised by Frenkel is the relationship between exchange rate arrangements and banking soundness. As he suggests, this is more difficult than the link to convertibility, because the evidence on exchange rate regimes is elusive, and the differences between the polar regimes, fixed or floating, are narrowing operationally. Fixity is increasingly sought through band arrangements, which allow market determination in the short run. Stability is the macropolicy objective within floating regimes. What one proponent might see as a “diagonal band,” another would see as a “kinky snake,” with the angles at the kinks determined essentially by the market. As long as the market dominates the situation, and central bank intervention is limited, there can be substantial monetary autonomy in global-
ized financial markets, but only for the good, because bad monetary policy is quickly penalized by the market. All in all, this seems to be a desirable state of affairs—not the best of all possible worlds, but good enough in the imperfect world of economics.

But one question remains: should an exchange rate be held significantly out of line with market forces in an attempt to push down its variability solely to reduce uncertainty and the attendant risks for banking soundness? I would suggest not. The indirect risks arising from the macro implications will tend to outweigh any micro/prudential gains.

In conclusion, to return to the marriage of the two policies—capital liberalization and banking soundness. George Bernard Shaw once said that the least ugly sister is the family beauty. I suggest that we do not regard either policy in this way—both are highly desirable.
The task of those charged with safeguarding the stability of the financial system has never been an easy one. However, the job is becoming even more demanding as a result of the phenomenal growth of financial markets following the tide of deregulation and globalization over the past twenty years or so. The awareness in official circles that banking system fragility poses a serious potential threat to the stability of the real economy, both at the domestic and international levels, has been growing for several years.

The present seminar is yet another expression of these concerns. Even though it is the stability of the banking system that is the explicit subject of these discussions, I take the liberty in this paper of looking at the financial system more broadly. My reasons for doing so are partly because the very changes that concern us challenge traditional distinctions among different types of financial institutions and partly because I wish to put the discussion into a broader perspective of systemic soundness.

Nature of the Problem

During the past twenty years or so, we have witnessed a profound change in the size and structure of the world’s financial markets. The trend, which emerged in a few countries during the 1970s, subsequently gathered momentum, and spread globally, is supported by three factors. First, the growing ascendancy of free market philosophy
provided the intellectual basis for the removal of quantitative and qualitative restrictions on balance sheet structures, as well as other restrictions that implicitly supported cartel-type arrangements. It also stood behind the removal of exchange restrictions that compartmentalize capital markets geographically.

Second, a wave of technological innovation led to the development of new financial instruments and a phenomenal reduction in the costs of gathering, processing, and disseminating information. This has led to the creation of new markets and the rapid expansion of others. It has also facilitated the management and co-ordination of activities that span wider geographic and product domains.

Third, the macroeconomic environment has been favorable. The growth of output and trade and the absence of major episodes of financial or economic crisis have encouraged globalization, which has brought in its train the need for more complex and geographically diversified financial services. A few figures will serve to illustrate the growth of financial market activity over the past decade and a half.

The two panels of Figure 1 plot the combined turnover in the secondary bond and equity markets in the major industrialized countries.
Table 1. Cross-Border Transactions in Bonds and Equities
(As a percentage of GDP)

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<td>62.5</td>
<td>119.4</td>
<td>71.9</td>
<td>59.9</td>
<td>65.1</td>
<td>82.8</td>
</tr>
<tr>
<td>United States</td>
<td>4.1</td>
<td>9.0</td>
<td>35.1</td>
<td>89.0</td>
<td>106.6</td>
<td>131.0</td>
<td>135.3</td>
<td>151.5</td>
</tr>
</tbody>
</table>

Sources: National balance of payments data; Bank for International Settlements.
Note: 1996 data refer to January through September.
1Gross purchases and sales of securities between residents and nonresidents.
2Since 1996, data based on settlement.

Total transactions in securities markets (relative to underlying GDP) have increased by seven times in the United States since the beginning of the 1980s, and by comparable amounts in most other major industrial countries, except Japan. The growing importance of the international dimension of the same markets is shown in Table 1, which calculates the volume of gross transactions in these traditional instruments between residents and nonresidents. The same message is conveyed by the results of the Triennial Survey of Foreign Exchange Markets conducted by central banks and coordinated by the BIS. The daily net foreign exchange turnover grew almost fourfold between 1986 and 1995 to US$1.2 trillion.

Figure 2 shows that the growth of more traditional banking activities has followed much the same pattern. The total volume of international assets held by the BIS reporting banks has more than doubled over the last decade.

The forces of market liberalization and the globalization of transactions have transformed the structure of the financial industry virtually everywhere and given rise to a more efficient and competitive financial industry. Liberalization has provided greater scope for markets to achieve a better allocation of financial resources, domestically and worldwide. It has improved the menu of investment outlets available to suppliers of funds and offered end users easier and cheaper access to finance. Financial innovation has also provided market participants with new instruments to better manage their risk exposure. The reduction in transaction costs has raised the liquidity of securities markets, while the removal of foreign exchange controls has permitted capital to flow more freely toward higher returns, promoting a greater diversification of portfolios. As the trend toward more open
and competitive market structures continues, the ensuring efficiency gains are likely to grow.

These benefits, however, have not been achieved without costs to the stability of the financial system. Greater market liberalization and internationalization go hand in hand with greater risk of potential disruptions that originate in or are transmitted through financial markets. More open and competitive markets can develop dynamics of their own and are subject to temporary fluctuations that are hard to explain on the basis of underlying fundamentals. The larger these markets, the greater is the economic impact of such fluctuations. Heightened competitive pressures, which squeeze financial institutions' profit margins, could lead them to pursue riskier strategies, increasing the possibility of failure. Economies that are more open to international capital markets are also more exposed to shocks originating abroad, which are then transmitted through international capital flows.

A growing body of academic research has focused on the interaction between financial and macroeconomic stability. It provides a theoretical confirmation of what financial authorities have always believed: namely, weak financial systems, and episodes of severe
strains or outright failures in financial institutions and markets, can have serious repercussions on overall economic stability.

There are several channels through which such effects can be transmitted. Balance sheet weakness at financial intermediaries severely affects their ability to channel funds from savers to borrowers, with adverse implications for investment. Instability at individual institutions can lead to more generalized fragility, or to sudden swings in asset prices, which in turn result in large losses and failures of firms both in the financial and the nonfinancial sectors. Decreased financial wealth can then severely affect the ability of firms to raise finance and continue normal operations.

A further set of channels has to do with contagion effects where the failure of one or a few institutions can lead to strains elsewhere in the financial system because of interconnected activity and mutual exposure through the payment system. Of a similar nature are the problems faced by debtor countries when a liquidity crisis in another country leads to an abrupt reevaluation of international investors' assessment of risk and triggers a sudden reversal of capital inflows with potentially adverse macroeconomic consequences.

Finally, financial instability can impinge on a country’s ability to pursue a prudent macroeconomic policy. International experience shows that the fiscal costs of resolving widespread financial failures can be high. The desire to limit these costs may induce monetary policy “forbearance”: to avoid the high costs of closing or recapitalizing of financial institutions, the authorities may be tempted to maintain a looser policy stance than that warranted by the prevailing macroeconomic conditions, hoping that the extra liquidity will help financial institutions out of difficulties. In such circumstances, financial markets may also sense the unwillingness of the authorities to defend rigorously any existing exchange rate target and a speculative attack may quickly follow.

The new financial environment facing policymakers and regulators is one in which certain traditional types of risk have increased and in which there are heightened perceptions of other types of risk, which in principle may have existed before but were of lesser concern. At least four kinds of changes in financial markets can be highlighted, each of which leads to greater uncertainty about where problems might arise, how they might manifest themselves, and what policy responses might be appropriate both to prevent problems and to deal with them if they do arise.

The first notable change is the increased volume of transactions in today’s markets. The implication is that the effects of a market disturbance could be considerably greater and affect a wider array of par-
ticipants than was the case twenty years ago. Since low transaction costs have increased the speed at which prices adjust to changes in market conditions, positions can be modified almost instantaneously and a wide range of other markets can be affected before the official sector has time to react.

A second change is that the conventional borders between bank and nonbank financial institutions, and in many cases between financial and nonfinancial firms, have become more blurred. Accordingly, the traditional structure of the financial industry is being continuously challenged, and old distinctions are less appropriate as a foundation for our regulatory and supervisory framework. Markets are increasingly competitive and contestable, while at the same time we observe the emergence of conglomerate structures that bring together entities operating in previously separated financial markets.

A third element of change, which is likely to grow in importance, is the increased institutionalization of savings. Growing awareness of the limitations of government-provided pension arrangements, and the increased capacity to manage institutionally diversified portfolios, have fueled the growth of private life insurance and pension funds, mutual funds, and other types of pooled investment vehicles. Many of these institutional investors are relatively new to the financial scene and untested in stressful market conditions. There is concern that the different incentive structure under which they operate may encourage "herd-type" behavior among their ranks, more so than is the case for traditional investors.

Finally, cross-country capital flows are growing rapidly, and domestic systems are consequently increasingly exposed to shocks emanating from abroad. The removal of exchange controls has enormously increased the ability of capital to cross borders in search of higher yield or to flow back in quest of higher security. Such flows can now be large enough to pose significant problems for financial and economic stability in the countries most affected. Of particular concern are the implications of such flows for the countries known as "emerging markets." Most are economies that are both growing fast and rapidly liberalizing their economic structure. The pace of economic change stands behind both the demand for and the supply of internationally mobile capital. Emerging markets offer an excellent opportunity for diversification, and thus reduction in the risk assumed by global investors, but at the same time their rapid growth, greater vulnerability to swings in sentiment, and other special characteristics distinguish them from industrial markets.

From the discussion so far it is obvious, I believe, why the question of banking soundness cannot be adequately analyzed in isolation from
the more general question of the structure and stability of the financial system at large. Given the speed and complexity of the changes under way in the international financial system, it should also be obvious that any strategy that aspires to promote robustness in a liberalized global marketplace has of necessity to be comprehensive and consistent in addressing all three of the pillars that constitute the financial system: financial institutions, market structures, and infrastructure linkages. Moreover, it has to recognize the importance of the interactions between the stability of the financial system and more general economic conditions.

**Improving the Resilience of Financial Firms**

Growing competition and the lowering of geographical and functional barriers in the wake of financial deregulation have combined with financial innovation to unleash strong forces for restructuring and consolidation in the financial industry. The key issue from a policy perspective is whether this restructuring is likely to proceed smoothly. Experience suggests that strains are likely to appear as competitive pressures confront stubborn cost structures and when the natural tendency of management to favor growth conflicts with prudent risk management. The danger is that managers of financial institutions will be tempted to pursue higher-risk strategies to keep profitability up and to seek increases in market share at the cost of the quality of business. A wide range of techniques can be used (and have been used) to implement such strategies. The risks of these strategies may not be apparent when overall macroeconomic conditions are favorable, since it takes time for questionable lending decisions to turn sour. At the same time, the existence of explicit or implicit safety nets makes it easier for banks to attract funds than it might otherwise be. All of this puts a particularly heavy burden on supervisors.

It is the responsibility of financial supervisors to discourage abuse of the safety net and at the same time foster competition and innovation and maintain a "level playing field." In today's competitive, liberal, and dynamic environment, this is a challenging task that requires a willingness to reevaluate the conceptual framework of regulation. As a result of such a reevaluation, capital adequacy standards have come to be the cornerstone of our present regulatory apparatus, replacing direct controls on permissible banking activities. The development of risk-based capital adequacy standards is, in my view, the appropriate regulatory approach to counterbalance incentives that would otherwise be distorted by the presence of the safety net. In
order to preserve reasonable competitive equity among various institutions, capital requirements have to correspond as closely as possible to the risks that market participants actually run. A significant recent development illustrating the adaptability of the regulators in this respect has been the extension of capital requirements to market risk and the acceptance, with appropriate safeguards, of banks' own models of such risks.

While formal recognition of the validity of proprietary models of market risk represents a positive and innovative step in the right direction, the fact remains that credit risk is still the principal cause of distress in most recent cases of widespread banking strains. Credit risk is probably the most old-fashioned category of risk, but its character has not been unaffected by the changing financial environment. From an accounting viewpoint, a rising proportion of credit risk has been incurred off balance sheet because of the increased involvement of banks in trading activities. The use of credit derivatives and securitization can separate the activity of holding credits from that of bearing credit risk. From an economic point of view, the growing importance of settlement risk has also shifted the balance toward shorter-lived but larger and less controllable exposures.

Keeping up with the growing complexity of evaluating credit risk is only one of the challenges faced by financial supervisors. Also of key importance is heightened vulnerability to operational risk. As the operations of financial firms become larger, more mathematically intricate, more geographically diverse, and more dependent on data processing technology, the scope for mishap and fraud becomes greater. Bank supervisors are therefore having to pay even greater attention to the adequacy of internal controls, the quality of banks' senior management, the robustness of economic models, and the risk-taking "culture" of the institutions they regulate. The bad news is that the necessary skills to do all these are in short supply and they carry a high price tag. The good news, however, is that the market mechanism can be enlisted as a powerful and effective ally in the supervisor's effort to instill discipline. The disciplinary effect of market forces can be strengthened by encouraging a greater degree of transparency on the part of individual institutions with respect to their preferred spot on the risk-return frontier, as well as disclosure at regular intervals of the performance of their internal risk management systems. Armed with this information, creditors and counterparties acting in their own self-interest will adjust the price of equity and the cost of external funds and liquidity to reflect their assessment of the risks run by the institution and the organization's ability to manage them.
A further complication is the blurring of traditional distinctions between different types of financial intermediaries and the emergence of financial conglomerates. In such circumstances, it becomes important to ensure that competitive equity is maintained and that the regulatory burden does not unduly handicap any of the competing firms in a particular market. Regulatory structures that have historically emerged from a geographically and functionally fragmented environment may need to be adapted to address this problem. Cooperation among different supervisory bodies (those for banking, securities, and insurance) on a cross-country and a cross-market basis needs to be developed. The recent announcement by the international insurance supervisors that they will locate in Basle to facilitate cooperation with banking supervisors is a notable development in this connection.

Financial institutions in emerging markets are confronted with two additional sets of problems that demand special attention from the regulatory community. The first I would label “starting-point problems.” They relate to the structural characteristics of these markets and the growing pains of financial reform. While there is no doubt of the long-run benefits of financial system liberalization, reforms create conditions that can lead to severe strains if not managed properly. We have ample evidence from emerging markets and industrial countries that inadequate preparation for financial liberalization is linked to severe banking crises. Second, the greater prevalence of government intrusion in financial market activities in emerging-market countries, coupled with relatively looser controls over connected lending, presents troublesome initial conditions.

The threat to banking system soundness that derives from these structural characteristics can be accentuated by the markedly higher volatility of macroeconomic conditions in emerging markets. The sources of this volatility are both external, in the form of variable terms of trade, foreign interest rates, and real exchange rates, and internal, in the form of higher and more variable inflation and less stable growth rates. Changes in these conditions are very frequently associated with large swings in already sizable capital flows, which if not properly managed can create major disruptions.

In sum, financial institutions in emerging markets are not only subject to more severe shocks but at the same time are often less well equipped to deal with them. These vulnerabilities suggest that supervisory authorities in these countries have an even harder task than their colleagues in industrial countries in ensuring that the appropriate structures are in place to deal with the problems. A case can certainly be made for a stronger capital cushion to permit the financial system to absorb these shocks. Perhaps even more important, however, is
ensuring that the proper incentives are in place to pursue prudent and diversified lending strategies. This includes the all-important accounting criteria that allow impaired loans to be recognized and dealt with before they threaten a lending institution’s survival.

Before leaving this section, it needs to be underlined that prescribing what must be done to foster healthier financial systems is only part of the job. Of crucial importance is generating the “political will” to ensure that effective regulation and supervision actually take place. This is why the work being undertaken by the Basle Committee is so vital. The development of guidelines established by an international group of supervisors can generate “peer pressure” among supervisors that should insulate them, at least to some extent, from domestic political pressures.

**Transformed Financial Markets**

The forces that have redrawn the contours of financial intermediation have also fundamentally transformed financial markets. Markets in new instruments have risen from the fringes to take, in a short period of time, an important place alongside more established, traditional securities. The consequences of these developments for overall financial stability have been at the center of attention of the official sector and in this section I would like to discuss some of the salient features of the official response.

The impressive growth of the market in financial derivatives, documented in Table 2, is arguably the most telling statistic of the transformation of the financial landscape brought about by financial and technological innovation. The growth of “plain vanilla” contracts traded has also been accompanied by an equally impressive growth, albeit from a smaller base, in more “exotic” contracts.

This phenomenal spread in the use of derivatives has not been without consequences. Some of the most spectacular financial losses of the past two or three years have been linked to the misuse of derivative securities or to a misunderstanding of the risks involved. Although one could characterize those episodes as a natural part of learning how to use the new tools, the fact remains that derivative securities present a formidable challenge to risk managers and supervisors alike. The complexity of the cash flow structures associated with these instruments underlines more than ever the need for establishing in each institution a solid risk management culture, which integrates accurate risk measurement tools with well-planned organizational structures for risk control at all levels of the hierarchy.
Table 2. Expansion of Selected Financial Derivative Markets
(In billions of U.S. dollars)

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<tr>
<td>Exchange-traded instruments¹</td>
<td>583.0</td>
<td>1,300.0</td>
<td>2,290.4</td>
<td>3,519.3</td>
<td>4,634.4</td>
<td>7,771.1</td>
<td>8,862.5</td>
<td>9,185.3</td>
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<td>Interest rate futures</td>
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<tr>
<td>and options²</td>
<td>516.0</td>
<td>1,174.0</td>
<td>2,054.0</td>
<td>3,229.3</td>
<td>4,298.4</td>
<td>7,321.1</td>
<td>8,401.2</td>
<td>8,605.1</td>
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<td>Currency futures</td>
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<tr>
<td>and options²</td>
<td>49.0</td>
<td>60.0</td>
<td>73.5</td>
<td>81.2</td>
<td>97.6</td>
<td>110.3</td>
<td>95.7</td>
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<td>Equity index futures</td>
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<tr>
<td>and options²</td>
<td>18.0</td>
<td>66.0</td>
<td>162.8</td>
<td>208.8</td>
<td>238.4</td>
<td>339.7</td>
<td>365.6</td>
<td>499.1</td>
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<td>Over-the-counter instruments</td>
<td>500.0</td>
<td>1,330.0</td>
<td>3,450.3</td>
<td>4,449.4</td>
<td>5,345.7</td>
<td>8,474.6</td>
<td>11,303.2</td>
<td>17,712.6</td>
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<td>Interest rate swaps</td>
<td>400.0</td>
<td>1,010.0</td>
<td>2,311.5</td>
<td>3,065.1</td>
<td>3,850.8</td>
<td>6,177.3</td>
<td>8,815.6</td>
<td>12,810.7</td>
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<td>Currency swaps³</td>
<td>100.0</td>
<td>320.0</td>
<td>577.5</td>
<td>807.2</td>
<td>860.4</td>
<td>899.6</td>
<td>914.8</td>
<td>1,197.4</td>
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<td>Other⁴</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Grand total</td>
<td>1,083.0</td>
<td>2,630.0</td>
<td>5,740.7</td>
<td>7,968.7</td>
<td>9,980.1</td>
<td>16,245.7</td>
<td>20,165.7</td>
<td>26,897.9</td>
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</tbody>
</table>

Sources: Futures Industry Association, International Swap Dealers Association; various futures and options exchanges; and BIS calculations.

¹Gross purchases and sales of securities between residents and nonresidents.
²Calls and puts.
³Adjusted for reporting of both currencies, including cross-currency interest rate swaps.
⁴Caps, collars, floors, and swaptions.
Financial market instability is often a contributory cause to difficulties at financial institutions and can also have adverse effects on the real economy. Markets relieved from the regulatory straitjacket are formidable mechanisms to promote the efficient allocation of resources. Yet, at the same time, they can generate internal dynamics feeding into participants' self-fulfilling expectations, which may lead to temporary but persistent mispricing of assets. As many of the artificial distinctions and barriers between markets have been lifted, these phenomena and the shocks from their sometimes abrupt reversal can easily spread across the entire system. Improving the functioning of financial markets is therefore a key element of any strategy to strengthen the resilience of the financial system as a whole.

The work undertaken over the last several years by various committees that meet at the BIS is a direct reflection of the growing awareness in official circles, and especially among central banks, that action is required. I would like to highlight in particular the recent work of the Euro-currency Standing Committee, which, as its name implies, was originally created to examine the implications of the emerging Eurodeposit market but has subsequently broadened its focus to include all issues relevant to financial market stability and the impact of derivatives markets in particular.

The Cross Report of 1986 marked the beginning of this work and focused on the nature of these new instruments and associated markets. It was not until the Promisel Report of 1992, however, that the systemic implications of derivatives were clearly set out. While emphasizing the overall usefulness of these instruments, the latter report nevertheless highlighted some associated dangers. In particular, it provided a definition of systemic crisis and noted the potential destabilizing effects implied by the highly leveraged nature of the new instruments. Derivative securities could accentuate disturbances because they increase the opaqueness of participants' exposures, intensify market linkages, and are usually employed in conjunction with hedging strategies that could destabilize market dynamics in the case of a large unanticipated market shock. These official concerns led to the recommendations of the Brockmeijer Report of 1994 that the Triennial Survey of Foreign Exchange Markets should be extended to cover derivatives markets. The additional costs of the data gathering were justified by the belief that the information would provide concrete measures of notional size, turnover, and geographical distribution; all three quantities are expected to be directly related to the potential costs of a systemic disturbance.

While aggregate data could help authorities to better comprehend the nature of the risks from a marketwide point of view, greater trans-
Transparency at the firm level would also help promote financial system robustness from a micro/prudential viewpoint. The Fisher Report of 1994 called for greater public disclosure by financial intermediaries' of their exposure to both market and credit risk and their capacity to manage it. The rationale behind this recommendation is that greater transparency would not only reinforce the inherent disciplinary capacities of the market mechanism but would also have an important stabilizing influence during periods of market turmoil. More specifically, by providing a clearer picture of counterparties' overall exposure, disclosure permits firms to gain a better understanding of how competitors may react to market shocks. In particular, disclosure would help mitigate the risk that counterparties would be shunned on the grounds that their exposure is not known and presumed to be too high. Finally, such information (at both the market level and the level of the firm) is of great value to central banks, which must make a rapid assessment of a developing situation and judge the appropriate response to episodes of market distress.

While appropriate standards of disclosure are equally important for emerging economies, their main preoccupation at this stage of financial development is the establishment of fully functioning financial markets. Markets that have the required depth, breadth, and liquidity to finance the government budget in noninflationary ways, to facilitate the conduct of monetary policy, and to allow a greater diversification of risks for the banking system. Liberalized and well-integrated markets can also be used as a disciplinary device as they are in a better position to penalize vulnerable structures and unstable policies. However, contagious reactions of investors can have very severe repercussions on the already volatile economic environment of these countries. Financial market development has to be accompanied by precautionary measures that shield the financial system against these shocks in the form of healthy and robust capital cushions.

**Financial Market Infrastructure**

Somebody once said that “payment and settlement systems are to economic activity what roads are to traffic: necessary but typically taken for granted unless they cause an accident or bottlenecks occur.” This is a telling analogy, which for many years characterized the attitude of the official and private sector toward the financial market infrastructure. Yet, the growth of the value of transactions, documented in Figure 3, coupled with an increasingly competitive financial environment has dramatically altered the scale of the liquidity and credit risks involved.
We are well aware now that the payments network is one of the most likely transmission channels of a generalized shock to the financial system, and some observers even claim that settlement system risk is perhaps the largest single threat to financial stability. Large and unpredictable exposures combined with limited information about their true size and distribution constitute a mechanism that could propagate and intensify financial distress. Participants unable to distinguish short-term liquidity problems from cases of fundamental insolvency are likely to withdraw from transactions. Such reactions can trigger more generalized distress and force the premature closing of positions with detrimental effects on asset price stability.

Central banks in their role as the institutions generally responsible for safeguarding the integrity of the payment system have taken a
number of initiatives to ensure the efficiency and soundness of those systems. The work has been done primarily through the Committee on Payment and Settlement Systems (CPSS), which has issued a number of reports with recommendations of best practices for the settlement of many types of transactions and has set explicit standards for multilateral netting systems and the measurement of foreign exchange settlement exposures. In multilateral netting systems, settlement occurs at fixed intervals on a net basis across all participants. As a result, exposures are accumulated during the interval between settlements to very high levels. The Lamfalussy Report of 1990 put forth a set of standards regarding the legal and technical characteristics of settlement systems, which would ensure that they would be robust enough to withstand extreme disturbances. These standards, importantly, include guidelines regarding the control of these risks and underscore the importance for the participants to be fully aware of these risks. The CPSS has also promoted the adoption, when possible, of real-time gross settlement systems as an alternative to net settlement schemes. If correctly implemented, they have the potential of further reducing the exposure of participants to settlement risks.

While the work has been carried out primarily with the G-10 countries in mind, the participation of the representatives from a number of emerging markets was necessary in certain projects, as their cooperation was essential. Also in the areas related to the settlement of domestic securities and exchange traded options, the CPSS has closely collaborated with International Organization of Securities Commissions.

**Macroeconomic Stability**

The previous sections have discussed some ways in which the resilience of individual components of the financial system can be strengthened. Let us turn now to the all-important interactions between the stability of the financial system and that of the more general economic environment in which financial institutions operate.

In a world where markets are becoming deeper and stronger, it is neither practical nor desirable for governments to try to counteract underlying market forces. The major effect of official action is essentially indirect through the impact that it has on market participants' expectations. Policymakers, however, still must avoid creating excessive volatility in macroeconomic policies and conditions. Prudence dictates that policy actions should be mutually consistent and sustainable. Sudden shifts of policy, or stubborn insistence on maintaining an
unsustainable policy course, can only increase the risks to the financial system.

Although markets have become more efficient in incorporating new information into prices, as can be seen in the decreasing trend in short-term (say, intraday) volatility, the fact remains that market participants cannot act on information they do not have or are uncertain about. Policymakers have to ensure that their intentions and strategy are communicated to the market in a clear and unambiguous fashion and that mechanisms are in place that are conducive to the timely disclosure of all information relevant to the pricing of traded securities.

The volatile character of the economic environment in emerging markets provides an additional reason why economic policymakers should be particularly careful in avoiding actions that further aggravate the fragility of their financial system. Financial liberalization seems to have brought with it both higher short-term volatility and a heightened tendency to misalignment. Relatively large and easily reversible international capital flows have also exacerbated certain inherent problems in these countries' financial structure. The policy response to this challenge has to be one that reduces the components of volatility that are under the control of the domestic authorities, while leaving a margin of insurance against unavoidable shocks and taking measures that reduce their impact to the financial system.

Disciplined monetary and fiscal policy strategies are the best response to the first task. Fiscal policy in particular has to make judicious use of capital inflows, recognizing their volatile nature. Wringing the most out of capital inflows for short-term growth is a very risky strategy, since these can easily reverse with disastrous financial consequences. A more prudent approach should aim for high sustainable rates of development while, as a first priority, ensuring financial stability. In addition, the management of foreign exchange reserves should reflect these realities and adopt more sophisticated strategies that provide for a larger cushion of financial resources against volatility-induced losses.

**Conclusion**

The wave of innovation, liberalization, and globalization that has characterized the past two decades has profoundly transformed the contours of the financial industry. This transformation holds the promise of great benefits, but at the same time demands a reevaluation of our conceptual and strategic approach for safeguarding financial stability.
Measures to strengthen the financial system must be comprehensive and cover all of its components in a consistent and compatible way. Since it is impossible to predict precisely where financial weaknesses will manifest themselves, particularly if they do so as a result of the interactions between otherwise innocuous events, participants and markets must be strengthened broadly and comprehensively. We have to focus on maintaining the system's integrity and not necessarily on avoiding the failure of any one institution.

I hope that I have identified in this paper a gradual shift of perspective in the way we perceive the task of prudential oversight. We have moved away from direct controls toward a more market-oriented approach. This framework emphasizes market discipline and is based on more disclosure and transparency. The future of supervision is the search for mechanisms that balance this greater freedom with greater responsibility and that use market forces in the work of official oversight.
Andrew Crockett gives us a comprehensive picture of the growth of global financial markets in recent years and a good flavor of their dynamism. He presents a sobering assessment of the risks that this growth potentially entails, and suggests how the so-called three pillars— institutions, markets, and infrastructure—have, or might further be, strengthened.

In his presentation, Crockett contends that the issue of stability needs to be considered in the context of a framework that is considerably broader than the banking system. Besides responding to this issue, I would like to pose the question of how inherently unstable, in practice, the global financial system actually is and then offer some supplementary observations on the actions that may be needed to strengthen the system, focusing on infrastructure and the role of the authorities.

Crockett observes that, given the size of the financial system broadly defined, it is obvious that banking system soundness cannot be analyzed in isolation from the broader system. This is because financial disturbances, wherever they originate, can have serious consequences for the real economy. It is also a logical consequence of Walras’ Law, which says that disequilibrium in a particular market must imply disequilibrium in at least one other market. Crockett argues, moreover, that new risks are introduced and others are amplified, notably settlement risk as a result of the staggeringly large daily volume of transactions that occurs in these markets. Volatility has increased, competitive pressures heighten the appetite for risk taking, and new developments such as the increasing globalization of saving and investment and its interaction with growth of emerging markets raise new threats. To be alarmist (which Crockett is not), I could add other phenomena: securitization may select the best credits from the banking system, possibly leading to a steady erosion in the average credit quality of banks; competition may lead to the systematic underpricing of financial instruments, especially in the case of new products before the market for the new product is mature; market making and risk exposure may be unduly concentrated in a small number of large international financial institutions, which may or may not be banks; and systemic vulnerability may be heightened by the continuing growth in the economy’s level of gross indebtedness.
This said, however, one should not overestimate the risk that a crisis will actually occur. Governments and central banks have been concerned about the consequences of globalization, at least since the publication at the Bank for International Settlements (BIS) in 1986 of the Report of Eurocurrency Standing Committee on Recent Innovations in International Banking. In a sense, we may have been guilty of "crying wolf." Because, since then, the system has survived a number of serious incidents—beginning with the global stock market crash of 1987, and including more recently the bankruptcy of a major innovator in international capital markets (Drexel Burnham Lambert) and a major international bank (Barings), a serious constriction in the market for floating rate notes, and the Mexican peso shock—with remarkable resiliency. In part, the lack of more serious consequences reflects timely and appropriate action on the part of the authorities, but it also reflects a serious effort on the part of financial institutions to gauge risk, limit risk taking, and devise appropriate defensive strategies. The development of proprietary risk management systems, which supervisors are now prepared to endorse, is testimony to the vitality of the private sector; its contribution must not be underestimated. Furthermore, in seeking to strengthen further the international system, one cannot inadvertently undermine the system's self-correcting aspects. I presume that Mr. Crockett has similar thoughts in mind when he says that regulation and supervision should emphasize market discipline and transparency and disclosure.

The developments that Crockett has described mean, not only that the broader financial system must be considered from the perspective of financial stability, but that special attention might also have to be paid to banks. Although they are declining in overall importance when measured by the volume of transactions or the relative scale of financial intermediation, they may be of heightened strategic importance because they remain at the core of the financial system as the primary source of short-term liquidity.

**Measures Needed to Strengthen the System**

Several measures might be undertaken to strengthen the system. First, on the matter of infrastructure. Crockett discusses the problem of settlement risk and indicated the initiatives that have been taken—primarily under the auspices of the Committee on Payment and Settlement Systems at the BIS—to ensure the safety and soundness of the payments system. I support his view that the legal framework is an important element of market infrastructure. The legal framework is
a key ingredient for limiting moral hazard. In developing and transition countries, including those that fall under the rubric of "emerging markets," there is often a basic need for workable laws on contract, collateral, and bankruptcy proceedings, as well as a need to implement and streamline court procedures for seeking effective and rapid remedy under these laws. But the issue extends also to highly developed legal and judicial systems because the continual state of innovation and evolution of new financial products can outrun existing legislation and raise fine points of law. For example, in some countries, dematerialization of securities is not a trivial matter. Another example is provided by the growth in the use of repurchase agreements that has necessitated the development of suitable master agreements and requires resolution of the issue of whether the instrument for legal purposes is a collateralized loan or a pair of back-to-back outright purchase and sale transactions. Multilateral netting similarly raises complex legal issues.

In addition, infrastructure relates to issues such as the organization of primary dealer systems, facilities for transparent and equitable trading arrangements, and questions of regulatory coverage and regulatory competition, not only across borders, but within national borders as well. Here, for example, the question is who regulates a primary dealer: the central bank or the securities and exchange commission, or both?

Second, there is the matter of the role of authorities. On this topic, Crockett emphasizes the need to ensure a stable macroeconomic environment, particularly one in which there is plenty of transparency regarding policy intentions so that there are few unpleasant surprises for market participants. I agree strongly with his emphasis, which can be characterized as largely preventative.

But perhaps we should also consider the implications of global financial integration for the instruments at hand to deal with a problem if and when one does emerge. Certainly these are issues of macroprudential policy. For example, the implications for the lender-of-last-resort function must be considered if the problem occurs in a large international financial institution that is not a bank. Another problem that deserves attention is deciding what is the appropriate response to a liquidity crisis when it is triggered not as a result of a bank's inability to liquidate traditional bank credits, but is caused instead by a seize-up in an otherwise liquid international market—as occurred in the floating rate note market some years ago. Do the financial authorities have a role to play, for example, by making a market of last resort in such instruments?

A final consideration should be the formulation of a suitable exit policy. One of the implications of the trends and data presented in the
early part of Crockett's paper is that large international banks and banking systems have lost comparative advantage to international securities markets as a channel for credit intermediation. It might therefore be conjectured that the world is, in some sense, over-banked. Orderly exit policies are required; otherwise, competition for a shrinking market share may enhance bank's willingness to take on risks and raise moral hazard issues. However, banks are chartered nationally and compete for market share globally. The questions to be decided then are which banks should continue to exist and who will coordinate the decision? I suggest that issues such as these are also raised by the continuing trend toward global integration.
Discussion

Referring to the role of the exchange rate in the Israeli stabilization, Mr. Itchev asked Mr. Frenkel whether a currency board—where no discretionary monetary policy was possible—would be an adequate system for a country facing a banking crisis. Mr. Škreb questioned the ability to withstand the pressures of international money laundering, especially in smaller transition economies. He wondered whether globalization had actually increased the settlement risk between countries. Mr. Kovacs supported Mr. Skreb’s view that the liberalization of short-term flows might be dangerous. Asset price movements often reflected over reactions to short-term capital movements, and it was unlikely that fiscal policy could play a mitigating role, especially in the short run. Mr. Khandruyev questioned whether there was a contradiction between the ongoing globalization of capital markets and central banks’ “paternalistic” approach.

Mr. Frenkel responded that a currency board was no blueprint and no policy prescription was appropriate for all countries and all times. A currency board was normally called for where other systems were unlikely to arrive at monetary control. It was important though that the necessary preconditions were in place and that the government was fully aware of what it was doing. It was also important to use the instrument carefully. If there was a sudden crisis and one currency board was failing, this most likely would have negative repercussion effects on all other currency boards. To avoid a crisis it was important to know in advance where the lender-of-last-resort facility was located—for instance with the budget—in which case a currency board was most likely sustainable. Concerning short run capital flows, Mr. Frenkel supported liberalization as soon as possible. “Use an opportunity when it comes, but don’t jump if the parachute is not in place.”

Mr. Crockett said that settlement risk did increase with globalization, and, especially, with the resultant sharp increase in the number and volume of transactions. Other risks, such as foreign exchange settlement risk (“Herstatt risk”) had become more important. Given the volumes involved (US$ 1.3 trillion per day, usually outstanding for two days) this risk was much bigger than initially thought. Institutions were now much more concerned about such matters than before, and he was optimistic that the issue could be mastered in the near future. Concerning money laundering, Mr. Crockett stressed that the “know your customer rule” was becoming ever more important. In fact, this was part of a bank’s duty. He stressed that banks violating this duty
should be subject to supervisory action. Concerning bank soundness, Mr. Crockett said that the issue of asset price variability (as possibly caused by capital flows) implied a need for much greater capitalization.
Part III

Prudential Standards and Banking System Soundness
Only a very small proportion of the Bank of Italy’s staff (about 100 people out of 9,500) is directly involved in monetary policy, compared with over 60 percent assigned to payment system functions and some 10–20 percent dealing with supervisory matters. I imagine the situation at other central banks charged with supervisory tasks is similar. Nevertheless, international cooperation in payment systems and banking supervision started much later than in monetary policy. In fact, it was not until the mid-1960s that an international banking system came into existence and international financial markets began to develop.

The Basle Committee on Banking Supervision was established in 1975 by the central bank governors of the Group of Ten countries, in the aftermath of serious banking crises that jeopardized financial stability worldwide. The key event that prompted the creation of the committee was the Herstatt bank crisis in Germany, and the resulting instability. In my view, the underlying reason for the Herstatt failure was basically the same as that which led to the collapse of the Bretton Woods system: the replacement of the authorities by international banks in the functions of determining capital flows and exchange rates.

The emergence of an international banking system and the growth of international financial markets profoundly changed the monetary order that had been established at Bretton Woods after the Second World War. They also caused banking supervision, which until then had been a domestic matter, to become a matter of increasing international concern.
The Basle Committee consists of senior representatives of central banks and banking supervisory authorities from the G-10 countries, Luxembourg, and Switzerland (around twenty-five people altogether). Government officials do not take part in the committee’s quarterly meetings, which are normally held at the Bank for International Settlements (BIS). The committee works through subgroups and task forces of members, charged with thrashing out the technical aspects of its decisions, and has a permanent secretariat, located at the BIS, which provides administrative and technical support.

In 7 of the 12 countries represented (Belgium, Canada, Germany, Japan, Sweden, Switzerland, and the United States), banking supervisory functions are shared between the central bank and a separate agency. The involvement of non-central bank institutions gives the committee a very special status. Although the central bank governors are regularly briefed on its work and their approval is sought for all its major initiatives, the committee is not formally subject to the governors and, accordingly, adopts its own decisions and publishes documents under its own name, and not as BIS or central bank papers.

The task of the committee was originally rather vague: to develop cooperation among supervisory bodies and improve methods for detecting symptoms of financial fragility at international banks. During its 22 years of activity, the committee has increased its authority and is now recognized as the international rule-making body in the field of banking supervision.

Today, the committee’s key objective is to strengthen international cooperation and improve the quality of banking supervision worldwide. This is by no means easy to achieve; there are many different ways in which the goal can be pursued and many variables that have to be taken into account.

**Committee’s Main Accomplishments**

Over the years, the committee has produced documents with a varying degree of “normative” force: reports; recommendations and “best practices,” which leave individual authorities free to implement the detailed arrangements best suited to their own national systems; and agreements of a binding nature, whereby member countries commit themselves to implement and enforce the rules laid down by the committee.

A wide range of issues has been covered, including the management of banks’ international lending (1982); the prevention of criminal use of the banking system for the purpose of money laundering
Evolving Supervisory Standards in Advanced Market Economies

(1988); the relationship between banking supervisors and external auditors (1989); the measurement and control of large credit exposures (1991); asset transfers and securitizations (1992); a framework for measuring and managing liquidity (1992); risk management guidelines for derivatives (1994); the framework for supervisory information about the derivatives activities of banks and securities firms (1995); the public disclosure of the trading and derivatives activities of banks and securities firms (1995 and 1996); the supervision of financial conglomerates (1995); and the management of interest rate risk (1997). Among the documents with “hard” normative status, two stand out for their scope and impact: the Basle Concordat and the Capital Accord.

The Concordat was drawn up in 1975, revised in 1983 (in the wake of the Banco Ambrosiano affair), and again in 1990. Its main purpose was to allocate responsibilities for the supervision of banks’ foreign establishments between home and host country supervisors. In 1992 (after the crash of Bank of Commerce and Credit International), the committee added its so-called minimum standards: the basic principles for the supervision of international banking groups. Just as diseases bring advances in medicine, banking crises bring advances in supervision.

The adoption of consolidated supervision is one of the key aspects of the Concordat, with its corollary of free flows of information between home and host country supervisors. The underlying principle is that the individual components of a banking group cannot be supervised only on a solo basis, because public policy would be seriously weakened if some subsidiaries were able to escape control.

The principle of consolidated supervision first took on importance in international cooperation, but it was quickly incorporated into domestic arrangements. No system could feel safe if that “rule” was not complied with. But it is not an obvious principle, and in many countries it is still not adopted outside the field of banking supervision. In the United States, for instance, there are the so-called unregulated subsidiaries of securities firms, which can carry on business without having to comply with the regulatory requirements laid down for their parent companies.

The issue of supervising international banks has recently been addressed again in the committee’s paper on the supervision of cross-border banking, which was released in October 1996 with 29 recommendations aimed at removing obstacles to effective consolidated supervision. The supervisors from 140 countries gathered at the International Conference of Banking Supervisors held in Stockholm in June 1996 endorsed the document and stated their intention to seek
changes in national legislation where necessary in order to facilitate implementation. This is in line with the G-7’s Lyon summit recommendations concerning the stability of the global financial system. Provision has been made for a review of progress in 1998.

The Capital Accord was adopted in 1988 in response to the growing concern of most of the members of the Basle Committee that the capital base of internationally active banks was being dangerously eroded. Prior to its introduction there had been major disparities in national supervisory practices regarding capital adequacy. The absence of a common system of measurement meant that it was nearly impossible to make meaningful cross-country comparisons and difficult to raise prudential standards without creating competitive distortions.

Against this background, the Accord set out to achieve two important objectives: first, to strengthen the soundness and stability of the international banking system by requiring banks to hold adequate capital; and, second, to remove the competitive inequality arising from differences in national supervisory requirements. It has been successful in establishing a generally accepted yardstick for measuring capital adequacy and has provided a global “superhighway” for monitoring the capital adequacy of banks.

The extension of the capital requirement to off-balance-sheet items was a key aspect of the Accord, just as consolidated supervision had been a key aspect of the Concordat. In some countries, using only the leverage ratio to measure capital adequacy had actually provided an incentive for banks to expand their off-balance-sheet business.

The focus of the Accord was primarily on capital adequacy in relation to credit risk—that is, the risk of the counterparty of a bank failing to meet its obligations. To arrive at a common framework, the committee devised a “tiered” capital framework, requiring banks to hold minimum levels of core and supplementary capital in relation to their on- and off-balance-sheet assets, weighted according to broad categories of relative riskiness.

In January 1996, the committee amended the 1988 Accord to apply capital charges to market risks. The aim was to provide an explicit capital cushion against losses arising from movements in market prices on both on- and off-balance-sheet positions. These risks typically concern debt and equity instruments in the trading book and related off-balance-sheet contracts, as well as foreign exchange and commodities trading. Banks must incorporate the new market risk capital charge into their risk-based capital ratios by the end of 1997.

The amendment to the Accord requires banks to calculate a capital charge for market risk using either a risk-weighting process developed
by the committee (the standardized approach) or their own internal risk measurement models. In order to ensure a sufficient degree of prudence, transparency, and consistency of capital requirements, the committee has imposed a number of quantitative and qualitative criteria for banks wishing to use their own internal models. The market risk amendment also allows banks, at the discretion of national supervisors, to extend the definition of capital to include short-term, subordinated debt subject to a lock-in clause (Tier-3 capital).

The introduction of an explicit capital charge for such risks is an important further step in the process of strengthening the soundness and stability of the international banking system and financial markets in general. It is also an example of the flexible regulatory approach with which the committee has responded to the challenge posed by the many changes that have occurred in the financial environment in the last decade. By “going with the grain of the market,” it takes advantage of the latter’s expertise and innovative drive to carry out supervisory tasks more effectively.

**Priorities for Future Work**

The dramatic changes that have occurred over the last two decades in technology, market practices, and regulatory approaches have blurred the boundaries that used to segment the financial industry. The key concepts are globalization, unrestricted capital flows, continuous financial innovation, and instant communication and data processing. These developments have tilted the balance of power from governments to markets and posed new challenges for supervisors and regulators. The Basle Committee has responded with a gradual but significant shift of emphasis in its priorities. Without abandoning its “core business,” the prudential supervision of the banking industry, the committee is focusing on four issues. Two I will touch on in only a cursory way (widening the scope from international banks to all kinds of banks and strengthening prudential standards beyond G-10 countries) and two I will look at more closely (bringing banking supervision closer to the market and increasing cooperation with other supervisors).

**Growing Attention to Domestic Banks**

The Basle Committee originally addressed supervisory problems arising in connection with the international banks of G-10 countries. Its rules were aimed at ensuring a level playing field and at discour-
aging “competition in laxity” so as to reduce potential causes of finan-
cial instability and risks of contagion.

Over time, Basle-related prudential standards came to be increas-
ingly applied by national regulators to all kinds of banks, irrespective
of the domestic or international nature of their activities, since it
proved easier to monitor the compliance of the banking system with
just one set of rules than to establish two different standards. This has
helped to improve supervisory standards and foster fairer competition
at the national level. It has also reduced the risk of a major interna-
tional crisis arising as a result of instability in a domestic banking
system.

Strengthening Prudential Standards Beyond the G-10

A similar rationale underlies the committee’s effort to help coun-
tries promote sound banking through supervision. In a global financial
market, multiple channels of transmission of financial instability
make each national system vulnerable to problems originating
elsewhere.

The Basle standards were originally designed for, and applied to,
the internationally active banks of the industrial countries represent-
ed in the committee. From its early years, however, the committee
has played a leading role in the worldwide development of pruden-
tial standards through various forms of cooperation with supervisors
outside the G-10: bilateral relationships with other countries, regular
contacts with regional groups of non-G-10 banking supervisors (of
which there are nearly ten today), and training courses. A survey
conducted in advance of the Ninth International Conference of
Banking Supervisors held in June 1996, showed that 92 percent of
the more than 130 countries in the sample followed a Basle-like risk-
weighted approach to capital adequacy and that around 80 percent
consolidated financial and prudential information on banks’ global
operations.

In the wake of that conference, and in agreement with the IMF, the
committee decided to prepare a document laying down the core prin-
ciples for both G-10 and non-G-10 countries to comply with in order
to have a sound supervisory system. The document is being drafted by
a joint group of Basle Committee and emerging-market supervisors,
and comments will be invited from the supervisors of other countries.
The committee has also decided to prepare a compendium of the
major policy documents it has produced in recent years for the con-
venience of supervisors worldwide.
Evolving Supervisory Standards in Advanced Market Economies

Bringing Supervision Closer to the Market

Globalization, the lifting of restrictions on capital movements, continuous financial innovation, and the shift in the balance of power from governments to markets have shown that coercive regulatory measures aimed at preventing undesirable behavior can produce perverse incentives and be excessively burdensome for the industry. The approach to supervision adopted in response to the banking crises of the 1930s was based on administrative controls, market segmentation, limits to competition, and sectoral barriers. In the end, if not actually detrimental, it proved ill suited to a financial environment undergoing rapid change. A more fruitful response is market-friendly supervision, which seeks to enhance the market’s ability to produce satisfactory equilibria.

Under this approach, supervisory measures aimed at ensuring financial stability have to be developed within rather than outside the market. Such measures are justified where the results produced by the market are inefficient and where the regulator uses instruments that minimize interference with entrepreneurial choices, imitate market discipline, and create incentives for banks to avoid excessive risk and prevent fraud. Market discipline is sometimes lacking because the market itself is missing. This does not necessarily entail financial instability—sometimes the opposite is true—but it is generally agreed that the creation of new markets yields efficiency gains for the economy as a whole.

Market friendliness was the approach that supervisors decided to follow when banks’ cross-border activities began to expand rapidly in the 1980s. The internationalization of banking business was taken for granted; instead of a noncooperative response aimed at restoring national barriers, the committee decided to match increased international banking with increased international cooperation and strove to establish sound supervisory standards on a worldwide basis. Since the committee was faced with different regulations in member countries, it was natural for it to proceed by drawing on the banking industry’s best practices in risk control and providing the right incentives.

The involvement of the regulated industry in the process of designing supervisory standards is another essential part of our method. The proposals put forward by the committee over the years were developed by working groups with close links to the banking industry, and formal consultation with market participants and other interested parties has become a common procedure and an important help. This process, far from making supervisory authorities the “hostages” of the
regulated institutions, encourages pragmatic solutions consistent with market discipline and best industry practices.

The Capital Accord—and especially the January 1996 amendment—can be seen as a major innovative step toward greater neutrality, transparency, consistency, and flexibility in the relationship between banks and regulatory requirements. It is a much more market-oriented approach to banking supervision than the previous one, based on direct case-by-case authorization. The Accord is a complete change in this respect since it leaves banks entirely free to choose the assets they acquire and fully responsible for their choices.

In planning its work for the years to come, the committee has recently decided to increase its initiatives to spur the regulated industry to produce antibodies against excessive risk, at the level of both individual firms and the market. This will be achieved by requiring effective internal controls and promoting market discipline through more extensive disclosure of information. Internal controls, market discipline, and capital adequacy are the three main fronts on which banking stability can be pursued. The more that is achieved on the first two, the less will be left for more traditional supervisory instruments to do. The three subcommittees that support the full committee's work have recently been restructured to reflect this three-pronged approach.

A number of special topics will also be addressed. They have been chosen either because they are of immediate concern to supervisors or because they indirectly affect the outcome on the three main fronts mentioned above. Innovations in payment systems and electronic money and banking fall in the first category. The committee intends to identify the supervisory problems—if any—to which such developments give rise. Accounting standards fall in the second category. The committee feels that weak and heterogeneous accounting standards risk undermining prudential requirements and market discipline. It therefore plans to start working in this field.

**Increasing Cooperation with Nonbank Supervisors**

Interagency cooperation has become necessary, if not imperative, in view of the dramatic changes that have occurred in the financial industry. The simple environment of just a few decades ago (three basic types of financial contract: debt, equity, and insurance; three basic types of financial institution: banks, securities firms, and insurance companies), no longer exists. Not only do geographical frontiers now count for little but the traditional functional and institutional boundaries have become increasingly blurred. This is especially true
Evolving Supervisory Standards in Advanced Market Economies

for the banking and securities industries. In order to preserve financial stability, the only feasible response—short of establishing a global supervisor, which hardly appears realistic—is to work together to develop common minimum standards. Accordingly, information flows among supervisory authorities need to be as unrestricted as possible, at both the national and the international levels. Another key objective should be to develop a set of principles for the effective supervision of financial conglomerates.

Cooperation between authorities responsible for different segments of the financial industry has been under way for a number of years, notably between the Basle Committee and the Technical Committee of International Organization of Securities Commission (IOSCO), which have issued joint documents on exchanges of information between banking and securities supervisors, risk management guidelines for derivatives, supervisory reporting for derivatives, and disclosure of trading and derivatives activities. Some years ago, an attempt was made to find common ground on capital requirements for trading books. Despite considerable efforts on both sides, no agreement was reached on that occasion. However, the lines of communication established between the Basle Committee and IOSCO have permitted the exchange of information on ongoing projects and some joint work has been done on the use of internal models. The committee remains convinced that attaining a consistent approach among bank and securities supervisors depends on progress in this key area, as has now been recognized within the European Union. A breakthrough does not appear imminent, but the committee and IOSCO will continue to work together.

The issue of interagency cooperation has attracted the attention of heads of state. The Halifax and Lyon G-7 summits both addressed this subject and the Halifax communique called for “a deepening of cooperation among regulators and supervisory agencies to ensure an effective and integrated approach, on a global basis, to developing and enhancing the safeguards, standards, transparency, and systems necessary to monitor and contain risks.” In response to this call, the Basle Committee and IOSCO sent a joint statement to G-7 ministers in May 1996, confirming their intention to cooperate in the supervision of global markets and announcing a joint initiative to “promote additional collaborative arrangements in the supervision of diversified financial groups.” The implementation of the initiative is now under way in the Joint Forum on Financial Conglomerates, consisting of members of the Basle Committee, IOSCO, and the International Association of Insurance Supervisors. The joint forum is currently “mapping” the structure of several international conglomerates in
order to gain an insight into their organization and formulating basic principles for the accurate assessment of the capital adequacy of conglomerates on a groupwide basis.

Cooperation and information sharing among supervisors of different countries and different segments of the financial industry have made considerable progress, in spite of all the obstacles. Much remains to be done, however, especially in the areas of financial conglomerates and capital requirements for market risks, and it has to be acknowledged that substantial progress does not appear to be within easy reach. Before becoming really effective, the process that has been set in motion will have to overcome many difficulties, largely as a result of the significant institutional differences between sectors, which are often of a domestic nature and embodied in legislation.

**Conclusion**

In the field of banking supervision, the Basle Committee has responded to the need for international cooperation and common prudential standards created by the breakdown of the Bretton Woods system and the transition from government-determined exchange rates and segmented financial markets to a world where capital flows and exchange rates are determined by market forces.

The experience of the last two decades shows that the institutional traits and working methods of the Basle Committee have been well suited to the task of grappling with the problems raised by the internationalization of banking. Looking ahead, the committee is ready to go on playing its role to the full and to meet the expectations of the financial community.
Comment

HASSANALI MEHRAN

In response to Tommaso Padoa-Schioppa's excellent presentation and his insightful reflections on the developments of banking practices in the last twenty-two years. I would like to say how grateful I am to him for his historical perspective on the work of the Basle Committee on Banking Supervision, which he chairs.

During the first of many seminars that the IMF held on banking issues in 1982, Peter Cook, Padoa-Schioppa's predecessor, described the purpose of the Concordat and the work of the Basle Committee. It is interesting to note how much the agenda and work of the Committee have grown during this long span of time. In listening to Padoa-Schioppa, it is only with appreciation that we can look back at extensive accomplishments made in the international sphere by this committee in order to set standards on banking practices and develop an international forum for exchange of information among the revered leaders of the profession. The International Monetary Fund and certainly the Monetary and Exchange Affairs Department (MAE) are very much in the business of dissemination of data, information, standards, and certainly policies. In a sense, MAE is a clearinghouse of best practices in central banking; in this context the MAE department follows the work of the Committee and the work program that Padoa-Schioppa has set forth with keen interest. As part of this process, MAE is most interested in continuing to work to make these practices and standards available to other IMF member countries in the course of our surveillance and consultation.

I have followed Padoa-Schioppa's arguments in great detail on the direction in which the work of the committee will progress in the next few years. He also uses some analogies in his presentation that deserve comment here. In particular, he alludes to the analogy of bank supervision with the medical profession and how much medicine can be prescribed to patients (banks) and what preventive measures the patient should take himself. In his presentation, he also referred to antibodies that the patients can develop as distinct from antibiotics that doctors have to prescribe. This analogy is an appropriate one to use to bring out one of the main messages of his presentation—that bank supervision has to get closer to the market to ensure that banks know how to manage their risk. This is a very important development and needs further discussion. Certainly, supervision must evolve over time, although, at least as fast as the markets and institutions them-
selves are progressing. The move to review a bank’s internal controls and risk assessment system is a necessary step in this direction. In this regard, I am in full agreement with Padoa-Schioppa that banks should be encouraged to develop “antibodies,” or protective measures, against taking excessive risk.

Bank supervisors are basically in the position of approving what class of antibiotics, or safeguards, are effective against certain types of risk, and in that context must be prepared to do the necessary research on appropriate safeguards to take and advise bank management on the best selection available to banks. While certain global safety standards for antibiotics can be established, they should be reasonably general—more general than in medicine, due to the fact that the divergences in national laws and regulations far exceed the differences in human chemistry and anatomy. What is appropriate for one particular institution in one particular setting may not be appropriate for another institution or the same institution in a different environment.

Playing the role of the doctor in this situation, bank supervisors must recognize that while virtually all patients (banks) would agree with the importance of avoiding excessive risk, they also have certain clear incentives not to be ideal patients who continue to take their medicine (banking safeguards) as prescribed. That is particularly the case in light of competitive pressures, when it is believed that the medicine may interfere with optimal performance. Moreover, if a bank is uncertain that other competitors are following their own preventive regimes rigorously—or if a bank is ignorant of its regulatory regime, whether it be foreign or domestic competitors, there will be an even greater temptation to rationalize indifference (or negligence). This is where supervision is like the doctor who ensures that the patient continues to take the appropriate medicine on a regular basis. Scheduled and random spot tests will probably both be needed. In this regard, regulators also must work to harmonize and disclose standards of behavior, communicate with each other, and work to develop a common language. Indeed, one patient (bank) may have more than one doctor (supervisor)—either because the bank operates in more than one jurisdiction or operates in more than one line of business. In such a case, the various medications (safeguards) must be, at least, compatible and ideally, complementary.

At the same time, there is the question of how to arrive at a balance, again, using the medical analogy, between allowing the body to develop antibodies and the prescription of antibiotics by the doctor. There is a delicate balance in this case of banks being allowed to develop their own regimen to assess their risk over a period of time so that the
strength of the patient (bank) can progress to the point that it can accommodate the exogenous shocks of the system. There is a trade-off between that time before a bank can weather shocks, which is often too long, and when the doctor (bank supervisor) should make an early prescription of antibiotics. This particular trade-off is somewhat judgmental. This is critical to one’s assessment in that the supervisors, in judging the bank’s own internal controls and corrective mechanisms, are also prescribing and observing how those antibodies will develop in the banking system. At the same time, an early prescription of antibiotics, without allowing the symptoms to develop, could be a move that perhaps would prevent banks from functioning efficiently.

This elicits a second consideration: should banks—and the markets—be allowed to correct the inefficiencies, or can the regulators and supervisors prevent such inefficiencies from developing? Padoa-Schioppa makes a very strong case that intervention is necessary to the extent that the prescriptions have to be there. But also in his paper he alludes to the fact that over time, as the market develops antibodies, there is less need for supervision. This does not necessarily mean that one day banks could do without supervision. In my view, banks will continue to have primary responsibility for overseeing the payments system, a characteristic that will remain unchanged, while the supervisors will still have an important role. Perhaps twenty years from now, it is interesting to speculate on how a similar seminar would address the concerns of a bank supervisor. Should we leave everything to the market forces, or will there still be a role for supervisors?

Third is the question of capital adequacy. In the last twenty-two years, as he mentioned, the Basle Accord together with the capital charged by banks has been the central focus of the work of the Basle Committee. It would be interesting to know how this issue will be reconciled with the question of allowing the supervisors to move toward market forces. Will the banks view their credit operations as a possible charge against their capital? There is no question of the importance of capital as a commercial bank’s only major component of the balance sheet against which there are no external claims—for example, no deposit withdrawals. But in examining a bank’s balance sheet so as to find the item of capital somewhere other than as an entry on the balance sheet is difficult. Capital, of course, cannot be viewed as an item of cash available to cushion banks in case of an emergency. But, nonetheless, this is how banks themselves often consider their capital. It is well to examine whether they see their taking risks in the marketplace as a charge against capital, or whether they look at some other criterion, such as their ability to raise funds at competitive rates? What are the main factors that affect banks’ behavior?
Finally, in consideration of outside banking system supervisors, he mentions correctly the increasing banking activities of nonbanks. In such an environment, it is critical to see how far the Basle Committee can go in collaborating with the other supervisory agencies. After all, as Padoa-Schioppa mentions, there is not much point in looking at the market risks that banks are carrying if they can conveniently book them as off-balance-sheet items—assets somewhere outside the balance sheet within the consolidated balance sheets of the conglomerate.
In response to Mr. Mehran’s comments, Mr. Padoa-Schioppa noted that dramatic improvements in joint regulatory arrangement across segments of the financial industry could not be expected, since the differences in institutional arrangements could not be easily overcome. He also thought that the expectations raised by the Halifax Summit might be too ambitious and probably would not be met in the next two years. Mr. Padoa-Schioppa stressed that the purpose of banking supervision was not to prevent all banks from failing; a healthy sector allows for exit. Bank failures do not necessarily indicate a failure in the supervision process. However, supervisors need to ensure that the rate of failure is not too high. He noted that, ideally, banking regulations do not, and should not, represent limitations to banks’ operations. Rules should be designed to enhance economic freedom rather than to limit it.

Mr. Hamda suggested that, in many cases, reconciling central bank operational objectives could be difficult. He noted as examples the reconciliation between the objectives of prudential regulation and monetary policy; and between provisioning for bank loan losses and making banks attractive banks to investors. Mr. Wang asked whether the supervision function across all segments of the financial industry should be consolidated in one authority.

Mr. Padoa-Schioppa reiterated his view that institutional changes take time, and recommended enhanced cooperation for the time being.
Applying Basle Standards in Developing and Transition Economies

FREDERIK C. MUSCH

The Basle Committee has now been in existence for more than twenty years, gradually moving from information gathering to coordination and then to harmonization of international banking standards. The thrust of its work over those years has been twofold: promoting sound banking standards, not only as regards capital; and encouraging cooperation among supervisors, which has gradually become more binding.

The evolution of the supervisory framework has been very flexible, moving forward whenever clear benefits could be shown and deliberately not imposing any integrated, rigid approach. The latter approach would have failed given the many institutional differences worldwide, even within the Group of Ten. Flexibility was therefore intentional and took several forms:

- Only certain aspects of supervision were covered: neither the accounting area nor fiscal elements were considered, nor were clear standards set for management quality.
- Standards, where set, could be at different levels. Minimum standards for capital were meant to be harmonized, but for certain other elements national discretion was allowed. With large exposures, for example, greater leniency was permitted, and with liquidity there was only a best-practices paper (which is still in demand). Deposit insurance was left entirely to national authorities.
- Implementation was allowed to vary by region, making allowances for local circumstances.
Changes in the Banking Environment

The work of the Basle Committee has, to a very great extent, been restricted to the G-10 banking systems. The international banks tend to be located in the financial centers of the G-10 countries, from where they serve the world through branches and subsidiaries. Although this composition is gradually changing, the financial institutions headquartered in the G-10 countries still make up just under 80 percent of the world’s international banking system, a figure that takes in these banks’ worldwide branches or subsidiaries.

Since 1988, maintenance of the risk-based capital framework has been an ongoing project for the Basle Committee. Concepts are continuously evolving and becoming increasingly complex. In discussions on financial innovations, one should only think of new risk management structures and in-house financial models for market risk, among others, but just as much is happening in connection with the so-called traditional elements of the Basle Accord. Changes are taking place in many countries, mostly of a technical nature, that are decisive for the outcome of capital calculations, and thus for competition among banks. The Capital Liaison Group has been managing the Basle Accord; especially in the last few years, many inventive products and schemes have been put forward, which have been evaluated so as to ensure equal treatment in all G-10 countries. Below are several examples:

- **Asset-backed commercial paper programs.** Such commercial paper typically receives the highest credit rating. The programs utilize a liquidity facility, which is usually provided by a commercial bank, typically for one year or less, in order to avoid risk-based capital requirements. By obtaining a one-year renewal as the paper matures, six months into the original commitment, the program is able to roll over the commercial paper for another six to nine months. Such facilities are converted to an on-balance-sheet credit equivalent, using the zero percent conversion factor.

- **Step-up clauses.** Such clauses lead to a different treatment of subordinated term debt in banks’ capital. They provide for an increase in the interest rate paid to investors after a predetermined period of time (usually five years). Nevertheless, the issuer can avoid that increase by redeeming the subordinated debt. Supervisory authorities in such cases have to choose between a significant relaxation of prudential regulation and the imposition of inappropriate charges on banks. Complications also arise in the case of zero-coupon subordinated term debt.
• **Special-purpose vehicles.** Banks set up such vehicles to purchase assets and issue securities. When several strict conditions are met, such vehicles do not require additional capital to support banks’ activities in this area.

Proposals for changing the risk-based capital framework usually—if not always—aim to lighten the burden for banks, for example, by stretching the definitions of Tier 2 capital to make it eligible for Tier 1 without the full qualifications. They are usually put forward by merchant bankers or lawyers in a member country. Another common tactic is trying to convince, say, U.K. regulators to consider a proposal by adding that the French authorities are at the last stage of approving, or have already approved, it. It is in such situations that very frequent exchanges among G-10 supervisors in the Capital Liaison Group become especially useful.

This practice of referring to schemes already allowed in other countries is not restricted to the G-10 countries. I could just as easily give the example of the Vietnamese authorities being approached with a proposal that has allegedly been allowed in Thailand. Not only are supervisors operating worldwide, but merchant bankers, too, are creating business for their clients on a global scale. The arguments can be quite persuasive, but the information provided must be verified. The framework is much more complicated than it is often perceived to be, and it is difficult to oversee all the consequences of tinkering with it.

It has often been stated that the Basle Committee’s work is about international banks, and is only relevant for those banks. This was the original intention behind the Basle Accord, but the lines between international and domestic banks have since become blurred. For instance, in the European Union, banking laws apply to both international and domestic banks, if that distinction can still be made. And increasingly in other countries, the rules are meant for the banking system as a whole. Thus, the distinction is no longer very relevant, although the Basle Committee still conducts statistical work on that basis. One could say that the rules agreed upon in Basle are designed for sound banking generally, not just international banking. In other words, the international supervisory framework is intended to ensure that banks, any banks, are adequately managed.

It would be misleading to give the impression that efforts to set up sound supervisory systems have been made only in the G-10 countries. On the contrary, much work has been undertaken by supervisors in the emerging-market and transition economies, and this on a voluntary and flexible basis, which may explain their clear progress. Much remains to be done, but maintaining flexibility in the approach has proved even more important in non-G-10 countries, where indi-
Applying Basle Standards

Individual supervisors have not only built their own supervisory systems but also fit them into a global supervisory framework. In Basle, the committee has seen clear evidence of this in the enormous amount of correspondence asking for guidance and documentation on a broad range of supervisory issues.

Regional Issues

As important as the much-needed support for supervisors in individual countries is the work of the regional groups of supervisors and their training. The regional groups are all rather different: some are supervisory organizations only, others form part of central bank cooperation; some have been in existence for a long time; some are quite recent. (The Basle Committee played an important role in the formation of the latter.)

The long-established groups are the European Union’s Banking Advisory Committee, the Offshore Group of Banking Supervisors, the Gulf Cooperation Council Committee of Bank Supervisors, the Association of Banking Supervisory Authorities of Latin America and the Caribbean Supervisors, and the SEANZA Forum of Banking Supervisors. In 1990, the Basle Committee decided to strengthen its cooperation with existing regional groups and to encourage the creation of regional groups in areas where no coordination existed. Several groups were created under the auspices of the Basle Committee as a result of this new orientation: the Group of Banking Supervisors from Central and Eastern Europe in 1990; the Arab Committee on Banking Supervision in 1991; the East and Southern Africa Banking Supervisors in 1993; the West and Central African Group of Banking Supervisors in 1995; and the Transcaucasian and Central Asian Regional Group, also in 1995.

The secretariat of the Basle Committee has been very active in developing this now global network. It now has good relations with 11 regional groups, and very few countries are not a member of some regional group. The cooperation of the Basle Committee with the regional groups consists of joint annual meetings with the chairs of the regional groups and the participation of its representatives and the secretariat in the annual meetings of the groups. The secretariat often assists in the organization of these meetings. The training provided by the secretariat is channelled through the regional groups.

After an initial concentration on Eastern Europe lasting into 1994, the training work of the committee has taken on a more global perspective. While in 1994 training was provided for 494 participant-
days, the total was 690 in 1995 (an increase of 25 percent), and 987 in 1996 (an increase of 59 percent). The committee is by no means alone in these efforts. The International Monetary Fund and the World Bank, as well as our member central banks, are also actively involved, and the committee is increasing its cooperation with the IMF and the World Bank to avoid duplication and overlaps. In our training worldwide, it supports non–G-10 countries in their efforts to set up banking systems that are up to international standards. It is very gratifying, for instance, to see many supervisors from non–G-10 countries who attended the committee’s flagship training course (held once a year in Basle) subsequently occupying senior supervisory positions in their respective countries and now playing an important role in the international coordination of banking supervision.

Cross-Border Arrangements

Another positive development over the years has been the cooperation among national supervisors in the area of cross-border banking. This started with the Basle Concordat in 1975 and its subsequent revisions. This earlier work led to the Minimum Standards, in which four basic principles were established:

1. All international banks should be supervised by a home country authority that capably performs consolidated supervision.

2. The creation of a cross-border banking establishment should receive the prior consent of both host and home country authorities.

3. Home country authorities should possess the right to gather information from their foreign banking establishments.

4. If the host determines that any of these three standards is not being met, it can impose restrictive measures or prohibit the establishment of banking offices.

Home and host do not necessarily correspond to G-10 and non–G-10 countries, respectively. Some of the largest host countries are G-10 countries and, outside the G-10 group, one also finds important home supervisors. Very simply, countries first have to put their supervisory houses in order and in doing so they may then gradually influence each other to improve the general quality of supervision.

In numerous countries, much has been done to implement these Minimum Standards, and much is being done to further the mutual commitment to cooperate, to exchange experiences, and to share information. Recently, the implementation of these standards has been improved as well. A group comprising representatives of the Basle Committee and the Offshore Group of Banking Supervisors produced
a report on cross-border banking that addresses how to better apply the Minimum Standards in practice. It sets out the following aims:

1. Improve the access of home supervisors to information necessary for effective consolidated supervision.
2. Improve the access of host supervisors to information necessary for effective host supervision.
3. Ensure that all cross-border banking operations are subject to adequate home and host supervision.

These aims follow from several issues of concern to supervisors:

- Determining the effectiveness of home country supervision. This entails focusing on the powers of global oversight and of the judgment of the host supervisor on whether consolidated supervision by the home supervisor is seen to be effective. This requires an information flow from the host to the home supervisor, with the need for home supervisors to verify that qualitative information received from banking organizations is accurate and to reassure the supervisors that there are no supervisory gaps;
- Inspections by home country supervisors. As part of the exercise of comprehensive consolidated supervision, a standard routine has been laid down, in which the rights of both home and host supervisor are to be protected;
- Information flow from the home to the host supervisor. It is also important for host supervisors to be informed of material adverse changes in the global condition of banking groups operating in their jurisdictions. This is recognized as important information to be shared but typically will be a highly sensitive issue for home supervisors;
- Supervisory standards in host countries. This basically relates to the effectiveness of supervision in the host country itself. Here a process whereby supervisors in regional groups can meet general criteria is outlined. It should, however, be stressed that any decision making regarding membership in a regional group should be left to that group alone; and
- Gaps in supervision. The Minimum Standards were designed to provide greater assurance that no international bank could operate without being subject to effective consolidated supervision. Gaps in supervision continue to pose a threat to that principle. In particular, shell branches and parallel-owned banks, as well as parent institutions incorporated in underregulated financial centers are at issue.

These cross-border arrangements were endorsed at the International Conference of Banking Supervisors in Stockholm last year, and their implementation will be reviewed at the next such conference in 1998.
Guidelines for Effective Banking Supervision

After the endorsement of the cross-border banking paper by supervisors from 140 countries at the International Conference of Banking Supervisors in June 1996, the Basle Committee followed up the discussion of national supervisory methods with written consultations and a meeting in November with the heads of supervision of 15 emerging-market countries. At that meeting, participants endorsed the Basle Committee's proposal to draw up a set of guidelines for effective banking supervision, in agreement with the IMF and the World Bank.

The drafting work is being carried out by a joint group of Basle Committee and emerging market supervisors, and comments have also been invited from supervisory authorities in other countries. The intention is to prepare a normative and comprehensive document, laying down all the key principles for a sound supervisory system, applicable to any country (G-10 as well as non-G-10). The committee has also decided to prepare, for the convenience of supervisors, a compendium of the relevant policy documents that it has produced in recent years. This will have cross-references to the guidelines document.

The guidelines concentrate on core principles of banking supervision, which are to be put in place in emerging markets; they include, for example, rules where no fixed standard applies within the G-10 countries, such as limits on large exposures or connected lending. It is important that such rules are firmly established. It is of secondary importance, and very much related to the legal and general institutional framework, whether they should stipulate 10 percent or 25 percent, or any other number for that matter. There has to be a certain flexibility within the system, just as there is such flexibility in the G-10 countries. As an example, there is increasing recognition among G-10 supervisors that disclosure should be an important tool complementing supervision. However, even in the G-10 countries, only the framework regarding market risk has been harmonized (more or less); a framework covering the more traditional elements of banking has not been well developed. Furthermore, full disclosure, including wholly adequate loan loss provisioning, would reveal in many developing countries—and especially transition economies—a banking system with very weak solvency, to say the least. Flexibility, caution in interpretation, and time for transition will have to be the remedies here.

A legitimate question for further discussion is how much infrastructure is needed before a definite, generally acceptable, worldwide system can be applied. Questions like this would appear to be more a matter of the time needed for transition than fundamental issues
regarding the working of the system, although a certain minimum clearly seems to be desirable.

Given the voluntary nature of implementing supervisory arrangements in non-G-10 countries, the committee is not systematically informed about developments in this area. The Basle Committee does not necessarily need to know "centrally," as it were, what is in place in non-G-10 countries. Much information of this kind is made available bilaterally within the Minimum Standards arrangements. That is how such information should be provided: on a decentralized basis via worldwide bilateral contacts. Of course, the committee has conducted worldwide surveys of supervision practices in the past, but the results need to be interpreted cautiously.

In preparation for the 1996 conference a survey was carried out, with the help of virtually all 140 participating countries, and some relevant statistics can be quoted from it. As the committee’s chairman Tommaso Padoa-Schioppa mentioned in his introductory remarks, it is interesting that supervisors around the world seem to be relying increasingly on a common box of tools for supervising banks. The similarities are remarkable, especially as regards the acceptance of the key components of the Basle Committee approach. Capital requirements, albeit computed differently, are used almost everywhere. In 92 percent of cases, a Basle-like risk-weighted approach is being followed. Nearly 90 percent of the countries surveyed do not allow lending to any individual customer to exceed 60 percent of a bank’s capital. A stricter ceiling—25 percent of capital—is applied by 55 percent of industrialized countries, compared with a striking 72 percent of other countries. As for the more complicated market risk exposure measures, almost 85 percent of non-G-10 countries intended to implement the amendment to the Basle Accord. Supervisors in all countries devoted special attention to internal control systems, frequently in the context of on-site examinations. An important conclusion of this survey was that the vast differences between countries in both structural and institutional frameworks are coupled with notable similarities in the basic instruments for domestic supervision.

There are, however, substantial differences: significant participation by the state in banks’ capital is to be found in nearly half the countries surveyed. The majority of countries adhering to regional groups, other than the offshore centers, report extensive government ownership, but privatization is planned almost everywhere. This present state influence must have an important effect on the application of the rules.

From the same survey emerged the interesting fact that a lower degree of convergence seems to exist for supervisory instruments that
have not been harmonized at the Basle level. Significant discrepancies, for instance, are recorded in the fields of crisis management and deposit insurance schemes. Where the Basle Committee had set rules for best-practice recommendations, there appeared to be much more consistency, possibly because these recommendations include ready-to-use concepts.

Of course, there are important differences in infrastructure, accounting systems, and legal frameworks, which make comparisons difficult, and sometimes meaningless. But much work has already been done worldwide, and much has been accomplished.

Several economists observe a much higher volatility in emerging markets and, predominantly for that reason, have proposed a set of international supervisory standards for those countries alone, different from the ones for the G-10 countries. There seems, however, to be a growing consensus that it would be wiser to steer supervision in emerging-market countries toward adopting the Basle capital and other standards to the greatest extent possible. From this viewpoint it would be best, as a general rule, to aim at essentially the same set of minimum prudential standards for all countries, and, many supervisors from those countries are moving in that direction. The world is seeing a globalization of capital markets. It does not seem appropriate to make an arbitrary distinction between banks that should have stricter capital requirements because of higher local market volatility—would be difficult to maintain over a longer time frame—and those that could have lower capital standards. It would lead to unequal competition within countries between branches of banks from G-10 countries and local banks, and, most important, it would create the wrong environment for all countries aspiring to become active in interdependent worldwide markets.

At the same time, markets are continuously changing. Banks in G-10 countries are increasingly using new financial instruments, generating higher income from trading portfolios, and concentrating activities in risk management efforts. Nor are banks restricting themselves solely to banking. In many countries, banks are allowed to enter into securities or insurance businesses, creating financial conglomerates that need their own management practices. The Joint Forum on Financial Conglomerates in cooperation with the International Organization of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS) has led the Basle Committee to work in this direction as well.

Where does this leave supervisors in emerging-market economies? Supervisors cannot stop evolution in the financial industry by setting artificial lines of demarcation. It is naive to say that in a certain coun-
Country there are no derivatives or trading portfolios in the banking system, when it is very likely that a local bank will conduct such business through a branch in New York or London. Some foreign banks from G-10 countries may already be conducting such operations in these countries. Whether supervisors in emerging-market countries like it or not, they have to master the latest techniques being introduced in the worldwide banking system because they will confront them, and sooner than they think. All supervisors in emerging-market countries must jump onto a moving train, getting up to speed as quickly as they can. This means preparing and training for the whole gamut of financial activities—not only banking but also securities and insurance—as well as adapting to the deregulation of markets, which paradoxically means an increasing need for supervision.

The focus of supervision may be different in the various countries. The more advanced countries are moving toward more qualitative supervision, focusing on management processes. Less developed countries, by contrast, tend to emphasize strict rules. As such, different sets of supervisory practices emerge. Nonetheless, most supervisors use the same basic rules and tools, which may, in the end, lend a common focus to the gradually emerging worldwide market of financial products.
Frederik Musch has given us a very informative and balanced presentation. It is worth noting, in particular, his emphasis on the flexibility of the cooperative arrangements that unite supervisors outside the G-10 countries. One would not normally feel very much in a position to add to this presentation were it not for the fact that these issues are of keen interest to the countries in Africa and, of course, by extension to my colleagues in the African Department. This interest has been reflected, as Musch noted, in the creation of two original groups of supervisors in Africa: the Committee of Banking Supervisors in West and Central Africa and the East and Southern African Supervisors Group.

The interest in these issues is rooted in two considerations. First, there is a realization that the same factors that led to the development of established prudential standards in industrial countries are also at work in Africa. Essentially, confidence in financial institutions is necessary to sustain economic growth, and it is accepted that such confidence is better grounded in the performance of the institutions than in some ill-defined government guarantee. This is the domestic consideration. The second consideration is external: unless African banks meet international standards, they will not be able to participate in the globalization process that is going on elsewhere. These are important stakes, and it follows that the standards that are applied to African banks must be fully appropriate. Most African countries have endorsed the Basle Committee standards, and Musch’s remarks indicate that there is a clear preference among supervisors for a single set of criteria. There is evident merit in this.

It is not evident, however, that the Basle criteria are always sufficiently strong. Some African countries are exposed to significantly large external shocks and, for that reason, may wish to have higher capital asset ratios than are standard. Such countries as Guinea-Bissau, Mauritius, and Zambia have chosen to go that way. The choice of risk weights also needs examination; in particular, the fact that in the Basle Committee standards, claims on government carry zero weight. Not all African countries have public debts of the first quality; some have experienced domestic arrears in the recent past. More important, there is an ongoing effort to create a level playing field in which governments are subject to market discipline exactly in the same way as other economic agents; the idea of giving zero weight to
claims on government when calculating the capital asset ratio may not be compatible with this concept.

In any case, the choice of appropriate standards is only one in a range of measures that, together must ensure the integrity of the banking system and of the financial institutions more generally. These other measures include stringent supervision by a central authority and rigorous in-house evaluation procedures. Both require the development of strong training capabilities and local expertise, and there is a lot of effort in that direction. Considerable progress is being realized but there is still a long way to go. In addition, there is another requirement that may be a little bit more specific to African countries and will take time to fulfill. This is to change the credit culture. The view has been too widespread, as a cultural matter, that bank credits do not always have to be repaid. This view is changing, but it will take time to meet the standards of industrial countries.

My last point concerns the observance of the standards. I think one needs to recognize that even though most countries have chosen appropriate standards, de facto banks do not always meet these standards yet. The cost of increasing bank capital to bring it up to standard is high—traditionally, the rates of return that are expected from this kind of investment in Africa are very high and the availability of financing is limited because of what is perceived as a risky environment. Not all banks will meet these standards instantly, and a strategy must be developed for how to get from here to there. Two guidelines will be useful. First, whichever strategy is chosen must be realistic in the sense that it must be pursued without reversal. It is better to proceed gradually and to be firm in implementation than to be overly ambitious. However, as long as banks do not meet the appropriate standards, they are at high risk. Therefore, the second guideline calls for stronger, more effective supervision.
Frederik Musch’s presentation has given us a lot of food for thought. I have little to add to what he has said. Instead of trying to focus on particular points, I would like to provide an overview of the areas that have received greater attention in the five-year-old relationship between the European II Department of the Fund and the countries of the former Soviet Union.

As a general proposition, we could say—to use Musch’s terms—that we tried to help these countries develop their capacity to undertake discrentional changes in their financial systems, that is, the elements that are best left to each country to decide, such as institutional and regulatory setup, the number and organization of the institutions allowed to operate in the system, and disclosure requirements. At the same time, we kept in view a medium- to longer-term perspective, that essentially calls for developing a framework to help these countries in their efforts to integrate their financial systems in the world economy—for example, rules and regulations affecting cross-border banking—or, in Musch’s words, that part of banking activity that would allow these countries to fit into the global picture. Given the extent of the problems encountered, the progress achieved so far can be judged as satisfactory, although much remains to be done. This progress should permit devoting greater attention to the pursuit of the longer-term goals in the years to come.

After the breakup of the Soviet Union at the end of 1991, the banking system that emerged was a two-tier system, consisting of a central bank and a group of commercial banks, with the latter evolving from the specialized banks. From their inception, commercial banks were not well equipped to assess credit risk. The problem developed as the number of commercial banks grew rapidly, reflecting the combination of a very lax approach to licensing and the continuation by the central government of a policy of directed credits. This policy, which used banks as vehicles to channel financial resources to specific sectors as determined by the central government, encouraged large corporations to set up their own banks in an attempt to capture such credit and promoted connected lending. These banks, however, had few banking skills and their functions focused on areas that in most other countries would have been handled by the treasury departments of large corporations. With a large number of banks lacking proper credit assessment skills, virtually nonexistent supervision, and an inadequate
legislative framework, the national banking systems were vulnerable to shocks. To complicate matters, high inflation episodes together with complex accounting practices and the ongoing structural transformation made it difficult to assess the real situation of the financial system as well as that of the borrowers. However, prolonged high inflation also eroded the real size of the banking system, thus reducing the potential size of the problem somewhat.

But changing the role of banks without disrupting the functioning of the system was not a simple task. In these economies, the banks were (and in many cases still are) at the center of a number of critical activities—not only to intermediate resources and effect payments but also for collecting taxes and acting as fiscal agents, thus maintaining very close relations with the government. It was, therefore, critical that the transition of existing institutions toward a truly commercial banking activity be coordinated with actions in other areas that would eventually pick up the other functions, for example, development of a treasury and a tax payment system.

Under these conditions, the IMF undertook the assignment of coordinating a comprehensive effort to provide policy advice and technical assistance in the area of banking and banking supervision for the countries of the former Soviet Union. All the technical work underlying our policy discussions and advice was coordinated by the Monetary and Exchange Affairs Department with the assistance of the central banks of a number of countries and the international institutions, committees, and agencies that specialize in this area. This expert advice enabled the country teams to identify and reach understandings with the authorities of the countries on minimum necessary steps to ensure that over a period of, say, three to five years these countries would be in a position to integrate their financial operations with those of the rest of the world, while having developed their domestic financial systems at their discretion. Implementation of these steps became part of the conditionality attached to many of the programs supported by the use of IMF resources. The technical advice included recommendations with a much broader scope, including developing a legislative and prudential regulatory framework for banking activities, including the connected areas of legislation as bankruptcy and collaterals; developing analytical tools to assess solvency and liquidity; and training personnel in the areas of monetary management and bank supervision and regulation.

The areas that received initial attention included (1) the need for a clear definition of the supervisory and regulatory authority, including its autonomy and enforcement powers; (2) the importance of standardizing accounting methods across institutions within the country
and making them compatible with international standards; (3) the importance of establishing clearly defined licensing procedures, including entry and exit rules; (4) the importance of developing analytical capacity to assess the financial conditions of banks, including objective indicators of performance and quantitative supervisory tools; and (5) the swift development of key legislation and crucial norms. While significant emphasis was placed on the principles, an important part of the work consisted of developing specific guidelines and requirements. The approach was rich as it reflected the emerging consensus of the local experts and the collaborating international institutions, specialized agencies, and governments. There were, however, several instances in which the lessons learned in the process of implementation led to changes in the emphasis given to particular areas of the strategy.

The cases of Latvia and Lithuania are a good example of how the full implementation of a regulatory framework can precipitate the failure of a number of banks. This is not to say that implementation of a revised framework should be lax, but that it should be ideally preceded, if not accompanied, by a thorough evaluation of the financial conditions of the banks in the system. With this knowledge, banks could be given different time periods to adapt to the new regulatory environment without disrupting their individual activities or those of the system. As Musch indicates, whatever the final framework, there are clear benefits to maintaining some flexibility in its implementation, exercising caution in interpreting the underlying conditions in the banking system, and providing adequate time for banks to fully converge to the new system.

Another important lesson arose in connection with the initial reluctance of many national authorities to let banks, especially larger ones, fail. This tendency to magnify the potential of the contagion effect reflected in part the poor design of the exit process, the absence of a well-defined set of principles regulating lender-of-last-resort activities, and the lack of an action plan to address banking difficulties and the eventual restructuring of the system, its funding, and the role of deposit insurance. Thus, one important task was to strengthen the analytical capability of the monetary authorities to monitor and assess systemic risk and to define—whenever possible within the legislative framework—the distribution of responsibilities and costs of an eventual restructuring of the banking system between the fiscal and monetary authorities.

After five years of addressing these issues, most national authorities seem to have developed a good grasp of where their systems are; they have begun implementing specific plans to develop their capacity to
monitor and assess the financial condition of their banking systems; they have made inroads in developing comprehensive legislation and a body of norms for regulating banking activity compatible with international standards; and they recognize the importance of adopting practices that are acceptable worldwide. A strengthened emphasis is being placed on implementing restructuring plans and defining more clearly where these authorities want their systems to go and how best to accomplish this task. The time has come for these countries to address more forcefully the topic of this part of the conference: the adaptation of international standards to their local conditions.

It is my view that it would be a mistake to force these countries to adopt existing international prudential standards in too rigid a fashion or to make the standards stricter than those reflecting the best banking practices in the world before having achieved a better capacity to monitor and assess the financial conditions of the system. While I believe all existing standards can eventually be applicable in these countries, too rigid an approach may be counterproductive. It goes without saying, that much stricter criteria than those applicable elsewhere may dilute the main objective of emulating the best practices in the rest of the world, which ideally should provide incentives to banks to conduct sound banking practices rather than imposing the will of particular governments on how banks should be run. One area that illustrates this concern is the capital adequacy requirement. Most people agree that it is necessary to have a standard and that it must be high enough to weather the volatility of local market conditions. However, banks must be given some time to adopt the new requirements in a nondisruptive fashion, and the assignment of risk weights to various kinds of assets must be carefully discussed, in particular the weights affecting banks' holdings of government paper.

From an institutional viewpoint, it is public knowledge that the IMF intends to continue collaborating with all the specialized institutions, in particular the Basle Committee, and with the governments involved to arrive at consensus on how best to apply international standards to particular countries and to use the vehicles of surveillance, IMF programs, and technical assistance to disseminate these standards among the member countries.
Mr. Musch commented on several of the issues that were raised by the discussants. On attaching a positive risk to claims on government, he understood there was an inclination among participants that in some cases risk rating for government could be appropriate, but it might not be possible given the political sensitivity of the issue. He noted that changes in credit culture are necessary for the development of a healthy banking system. He emphasized that supervisors should be careful to adhere to their supervisory role rather than creating and enforcing too many guidelines that could impose high risk-averse attitude on bankers, thus resulting in low returns on capital.

Mr. Wang commented that, although current practice is to attach zero weight to OECD countries' risk, risk varies among the various OECD countries. Some credit rating companies still rank banks by their asset volume and do not take into consideration Basle Committee standards, which is misleading. Referring to risk associated with government lending, Mr. Wang argued that loan risk classification should be based on the ability to repay regardless of ownership.

Mr. Assiga-Ahanda commented that countries created banking commissions for the purpose of strengthening banking supervision. As regards the introduction of Basle Committee standards, he noted that the adoption of global standards might not be appropriate in the context of African countries where specific characteristics and cultural differences should be taken into account. As examples, he mentioned government risk and credit culture.

Mr. Khandruyev reported that the Central Bank of Russia was taking measures aimed at strengthening on- and off-site supervision and was moving gradually to international standards. He emphasized the role of information in off-site inspection, and noted that problems arose when financial institutions presented distorted information reflecting misrepresented financial positions and false profitability. He favored the development of reporting guidelines to ensure the quality of information.

In response to Mr. Khandruyev, Mr. Musch noted that the Basle Committee was setting up an information group and an accounting task force. An effort was being made to harmonize treatment of market risk. He emphasized the difficulty in harmonizing accounting frameworks as these frameworks were very different across countries. As for asset classification, he warned that quick and easy solutions in attempting to develop asset classification rules worldwide were not envisaged, as the matter is very complex. On the risk classification of OECD countries,
Mr. Musch agreed that there were different country risks within the OECD. The current treatment of OECD as a unit for the purposes of risk classification was a simple and practical solution, but it was not necessarily the best solution.
This paper focuses on the tax treatment of loan losses of banks and other regulated credit institutions under the corporate income tax. This issue has been prominent in recent debates on the tax treatment of financial institutions owing mainly to two factors. The first is that, during recent episodes of financial distress, loan losses have been perhaps the most significant cause of bank insolvencies and fiscal or quasi-fiscal costs. In this context, ill-designed methods of tax deduction of loan losses can be expected to result either in a substantial decline in tax revenue or in an impediment to the resolution of a banking crisis. The second factor is that, until now, the area in which international convergence on regulatory matters has achieved the highest degree of success has been the measurement of credit risk and the definition of minimum capital requirements against this type of risk—that is, the risk of bank failure owing to loan losses. As a result, an opportunity has been created to base the tax treatment of loan losses on a common international conceptual framework.

Episodes of financial sector distress, which have affected a substantial number of industrial, transition, and developing economies, often reveal shortcomings in the existing tax systems regarding their treatment of banks. Specifically, the tax treatment of loan losses and

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related issues has often become controversial in the wake of pronounced deteriorations in the quality of banks' loan portfolios, and reforms of the pertinent tax provisions have accompanied in some cases plans to consolidate the banking system. A word of caution is necessary, however: the tax system cannot and should not be geared toward the solution of a temporary banking crisis. Rather, a reform of the tax treatment of banks—if one is deemed necessary—should aim to create a stable and neutral tax system. Attempts to support weak banks by means of tax concessions and other activist tax policies are bound to fail as crisis resolution strategies: they are unlikely to provide troubled banks with sufficient financial resources to overcome their illiquidity or insolvency, as the case may be; their untargeted nature makes them nontransparent and unacceptably expensive for the public budget; and their distortive effects impair the efficiency of the market mechanism of economic incentives in the medium term, prompting a suboptimal allocation of resources and possibly contributing to a recurrence of financial distress. Therefore, the approach adopted here is that the tax treatment of banks should be guided by a criterion of neutrality, both with respect to alternative bank investments with different profiles of risk and cash flows and with respect to bank and nonbank economic activities.

The globalization of international financial markets during the past two decades, coupled with increased deregulation and diversification of financial activities at the national level, has radically enhanced the opportunities for a more efficient allocation of economic resources and expanded the growth potential in developing countries. These developments, however, have posed new challenges to domestic financial sectors and economic institutions. In particular, they have highlighted existing distortions and imperfections in the prudential and tax treatments of the financial sector. Partially as a result, the need has increased for international coordination in laying down the necessary legal and institutional infrastructure to bolster the solvency and soundness of financial institutions while minimizing the sources of competitive inequality in international financial markets. At the domestic level, many national authorities have also undertaken such reform with the objective of facing the challenges posed by the rapidly evolving financial sector. As part of this trend to reform the institutional environment of financial activities, the tax treatment of banks and financial institutions has become a focus of renewed interest.

Specifically, the ongoing process of convergence in capital measurement and solvency standards along Basle guidelines tends to prompt reassessment of the tax treatment of bank reserves and provi-
sions. Thus, the achievement of the avowed objectives of fair international competition in financial services and soundness of domestic financial systems will conceivably entail some adjustments regarding the tax treatment of these economic activities in line with regulatory initiatives. The Basle Accord clearly differentiates between (1) general provisions or reserves against unidentified risk, including general provisions for loan losses, and (2) specific provisions against identified losses, including specific provisions for loan losses. The former are part of regulatory capital and, accordingly, can be considered similar to undistributed profits. The latter are defined as “created against identified losses or in respect of a demonstrable deterioration in the value of particular assets” and, since they are not freely available to meet eventual subsequent losses, “do not possess an essential characteristic of capital.” To the extent that this distinction may prompt regulatory and accounting reforms, tax systems may also have to define a consistent treatment of these categories. Nonetheless, it is argued below that all existing accounting and regulatory systems may lead, in principle, to both over- and undertaxation of the banking industry. It is also true that differing accounting systems could have the same effective tax implications. Thus, it is not sufficient to synchronize formally the determination of taxable and regulatory income; specific


2 See paragraphs 18 to 21 in Basle Committee, International Convergence and amendment to Basle Committee, Amendment of Basle Capital Accord.

3 The Basle Accord considers paid-up share capital and disclosed reserves from post-tax retained earnings as Tier I or core capital; general loan loss provisions or reserves created against the possibility of future losses are considered Tier II or supplementary capital. The EC Directive on the Own Funds of Credit Institutions (Council of the European Communities, Directive on the Own Funds of Credit Institutions (89/229/EEC) (Brussels: EC Council, 1989)) treats funds for general banking risks (often including general provisions for loan losses) as a separate category, not subject to the constraints applying to “additional capital” (similar to the Tier II capital of the Basle Accord). Core capital is deemed to present a higher availability to meet eventual future losses, and reflect more adequately the solvency of the institution, than supplementary capital.
attention must be devoted to the effective tax impact of regulatory reforms and the correspondence between statutory taxable income and the intended tax base—economic income.

Valuation of Financial Assets and the Income Tax Base

The target base of the corporate income tax is the net income earned by the taxpayer during some conventionally defined time period—typically a year. The determination of net income involves matching expenses to the income to which they relate. That is, the taxable base is determined by subtracting from gross income those costs incurred in generating the income. Thus, loan losses must be deducted from the tax base since they are a necessary business cost of lending activity.

Gross income and its associated expenses may be defined in several ways, each with potentially important implications in terms of tax revenue and economic incentives. Specifically, income and expenses may be recognized upon accrual or upon realization, affecting the timing of tax liabilities. Under a definition based on realization, transactions and other relevant operations are dated and valued according to the timing and amount of actual payments in cash or its equivalents. In contrast, under an accrual definition of income, relevant events have income repercussions whenever a claim or liability arises, or whenever their value changes.

The definition of income based on accrual matches more closely the timing and magnitude of the underlying economic event—namely, the change in the taxpayer’s net worth according to a market valuation. Thus, when measuring accrued income, changes in the value of claims

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5 Throughout most of this paper the term accrual is defined in relation to the actual or notional market value of an asset. Thus, a loss (gain) is said to accrue whenever the market value of the asset decreases (increases). In contrast, a gain or loss is realized when the asset is actually transacted. This concept of accrual does not always coincide with its legal or accounting counterparts. As discussed below, the so-called accrual accounting method does not fully reflect all changes in the market value of assets but only those that meet specific criteria set forth by a country’s legislation and regulations. Also, the cash accounting method, although placing the emphasis in realization values, recognizes some gains or losses (including loan losses) before they are realized.
and liabilities entail current-year income repercussions even if their realization—their materialization into actual cash flow—may occur beyond the end of the current year. Similarly, changes in the value of claims and liabilities are taken into current income as they accrue although their ultimate realization value may be subject to uncertainty.

The accrued income from an asset (or group of assets) equals, by definition, the net cash flow derived from it plus the change in the asset's value. In the case of a portfolio of loans, for example, the associated cash flow comprises interest and repayment of principal, less new loan issues; the change in the value of the portfolio encompasses, inter alia, loan losses prompted by deterioration in the collectibility prospects of the loans in the portfolio. The cash flow from a loan portfolio, as well as from most assets, generally can be easily assessed. In contrast, however, a precise measure of the change in the value of some assets, such as loans and other financial claims, may not be readily available. Hence, the determination of the corporate income tax base and, consequently, of tax liability, requires the specification of a methodology for the valuation of these assets.

The accrual method of accounting attempts to approximate a measure of income based on economic, or accrued, income. Standard accrual-based accounting methods actually incorporate, however, a combination of accrual- and realization-based valuation methods. The deterioration in the value of a portfolio of loans prompted by loan losses is generally recognized upon accrual—that is, when the loan losses are identified; in contrast, similar changes in the value of the portfolio caused by interest rate swings or other capital gains or losses are often recognized only upon realization. Compared with cash-based accounting, the accrual method offers less scope for tax planning and tax avoidance through intertemporal tax arbitrage—such as delaying payment of liabilities. In most countries, corporate income taxes are levied on a measure of income that is determined, to the extent possible, on an accrual basis. Pure cash accounting is either disallowed or restricted to small taxpayers, owing to the simplicity of this accounting method. In particular, most banks and financial insti-

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6Difficulties may arise, however, in the case of refinancing or rollover of a loan—when no actual cash payments are involved—and the loan value could be considered impaired prior to its refinancing. Another source of difficulty concerns accrued but unpaid interest. In these cases, all or part of the cash payments originally envisaged do not take place but rather a new claim arises. These instances are treated below in the context of the valuation of the newly created claim.
tutions are required to assess their taxable income under the accrual accounting method.\(^7\)

Measuring income on an accrual basis poses some problems specific to the financial sector. Accurately assessing the value of financial assets typically depends on the existence of well-developed markets in which those assets are traded.\(^8\) The value of an asset can be established at the time of its first acquisition—in the case of loans, the initial value is given by the amount originally disbursed (usually equal to the face value of the loan)—or on the occasion of subsequent transactions. Moreover, even when an asset is not traded for a long period, but there nonetheless exists an active market in assets of that class, an asset’s value can be presumed to be the market value of similar assets.\(^9\) Thus, for example, frequently traded securities can be valued at market prices.\(^10\) For many assets, however, mark-to-market methods are impractical since their markets either are limited or do not exist. This is often the case with bank loans, given that in most countries, particularly developing countries, secondary markets for loans are either very thin or nonexistent. Other financial assets such as over-the-counter securities may also lack a market with sufficient depth to allow mark-to-market methods. That said, the lack of a precise asset valuation does not imply that investors cannot assess the value of a bank’s financial assets throughout their life until maturity; circumstances affecting realization values are reflected in the overall value

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\(^7\)Nevertheless, some countries allow cash-based accounting for some financial operations in the case of small banks. For example, tax accounting on a cash basis is allowed for small banks in the United States (banks with average annual gross receipts of US$5 million or less over a three-year period), Japan, and Canada. Still, recognition of loan losses when they are identified (rather than when they are realized) is often possible (or mandatory) for banks under cash-based accounting.

\(^8\)For a description of valuation techniques, see Manual on Monetary and Financial Statistics, revised draft (Washington: International Monetary Fund, 1996).

\(^9\)Owing to adverse selection, market prices may bias downward the value of a bank’s portfolio of financial assets. If there is private information on the quality of the assets that is known by the seller but not by the buyer, low-quality assets ("lemons") will be offered for sale first, while high-quality assets will be kept by the seller. As a result, the market price will reflect the value of those assets with the lowest quality—rather than an average quality. Secondary markets for loans may show this type of behavior.

\(^10\)Some derivatives (such as tailor-made or "exotic" options) that are rarely traded may lack a market price. Standard pricing techniques, however, may allow the imputation of a market price based on the market values of the underlying assets and related derivatives.
of the bank (for example, through share prices) and in its creditworthiness, depositor’s confidence, and similar measures.

Against this background, if tax neutrality across assets and alternative investments is to be preserved, losses stemming from a deterioration in the value of a bank’s financial assets—and of its loan portfolio in particular—should be recognized in determining taxable income as these losses accrue rather than postponing their tax recognition until realization. In that manner, the tax base will encompass changes in the economic value of assets as they occur. A deficient coverage under the corporate income tax of changes in the value of a portfolio of financial assets would prompt tax-induced gains or losses across assets according to their different levels of risk, cash flow profiles, and so forth, arbitrarily distorting their market values. This distortion, in turn, might have potentially detrimental consequences on bank capitalization and hinder the efficient allocation of financial investments.

**Accounting Aspects of Loan Loss Provisioning**

The two main financial statements for banks, as for most businesses, are the balance sheet and the profit and loss statement. The balance sheet is intended to reflect the value of the stock of assets, liabilities, and equity at a moment in time. The profit and loss statement reflects the flow of income and expenses during a specified accounting period as they arise from financial and real transactions and other relevant events. Thus, the result of the profit and loss statement must equal the change in assets less the change in liabilities and, correspondingly, the change in the value of equity before transactions with equity participants—such as equity contributions or profit distributions.

Many financial standards and regulations are based on historic cost accounting principles. With historic cost accounting, assets and liabilities are recorded at the actual value at which the original transactions took place. Strict historic cost accounting would require that the changes in value of balance sheet elements be reflected only upon realization. Nevertheless, in order to preserve the integrity and information content of the financial statements, accounting standards and regulations force or allow the recognition of selected gains and losses as they accrue, resulting, in practice, in a methodology that is a hybrid between the two extremes of historic cost accounting and market value accounting. Thus, for example, most regulations require that unrealized losses on a bank’s trading portfolio be recognized through mark-to-market methods. In contrast, the recognition of unrealized gains or losses on a bank’s investment portfolio of securities may, under some conditions, be deferred until realization.
Changes in the notional or actual market value of a bank's loan portfolio are, likewise, only partially reflected in the financial statements. Thus, for instance, changes in value arising from movements in the market discount rate are rarely reflected in the balance sheet.\textsuperscript{11} In the case of credit (default) risk, regulatory financial standards provide different means of recognizing loan losses. Specifically, there are two main accounting methods of recording these loan losses: loan write-offs and creation of provisions for loan losses (or bad and doubtful debt provisions).

A loan is written off when the claim is redeemed through repayment or when it is deemed irrecoverable and therefore worthless. Some countries (for example, Australia and the United States) also allow partial write-offs when only part of the debt is considered uncollectible. Under the provisioning method, receivables are recorded at their full face value until they are written off. However, a provision for loan losses is set up as an allowance against the eventuality that some of the receivables may prove to be uncollectible. This provision is shown either separately as a liability in the bank's balance sheet or netted off against the impaired asset to which it relates.\textsuperscript{12} Generally, allocations to the provision for bad and doubtful debts are recorded for financial purposes as charges against the profit and loss account and, consequently, they reduce financial income.\textsuperscript{13} When a loan is considered worthless, it is written off against profit and loss or instead, if a provision for loan losses has previously been made, it is charged against the provision without direct income consequences. Conversely, in the event of recovery of a loan already written off or

\textsuperscript{11}As an example, the value of a fixed-rate loan will be enhanced by lower market interest rates (provided that the event was not fully anticipated at the time of loan issuance). A full mark-to-market methodology would incorporate this source of value changes.

\textsuperscript{12}There is often a link between the accounting presentation of the provision for bad and doubtful debts and its economic significance. When the provision is netted off against the corresponding asset, it tends to represent an already accrued loss and, thus, the net asset value is meant to approximate its economic value. When the provision is shown in the liabilities' side of the balance sheet—in which case it is often called a reserve—it tends to represent a precautionary allocation of income for future possible losses not yet accrued and it is also often unrelated to any particular loan. This link, however, is at best tenuous and is not observed uniformly or consistently across countries or accounting practices.

\textsuperscript{13}Confusingly enough, the term "reserve" is often applied to allocations of net profit set aside for actual or anticipated future needs of the institution as well as to provisions for expenses created by charging the profit and loss account. Further, in the United States, the loan loss provision is referred to as "allowance for loan losses" or "loan loss reserve," while provision for loan losses denotes the charge against profit for additions to the allowance for loan losses.
provisioned, a corresponding income item is recognized by the amount previously written off and subsequently recovered by the amount of the provision that needs to be reversed.

There are two basic types of loan loss provisions, specific and general.

(1) Specific provisions are linked to particular loans and are assessed individually after distinct circumstances impairing loan collectibility have been identified. In some countries, however, specific provisions against loan pools are also established; in that case, the loans in the pool are required to show some indication of uncollectibility (such as payment arrears). These pools may be defined according to various criteria including country or industry groups, length of delinquency period, and others. Specific provisions are often netted off against the face value of the related loan or loan pool. They are not generally counted as regulatory capital for capital adequacy purposes.\(^\text{14}\)

(2) General provisions are not linked to any particular loan and constitute an allowance against unidentified loss potential on loans that have not been specifically provisioned. Countries differ in the accounting and regulatory treatment of general provisions. They can be netted off against gross assets or shown as a liability item in the balance sheet. Some countries’ regulations consider general provisions for loan losses as part of the regulatory capital base toward meeting capital adequacy requirements.\(^\text{15}\) General provisions can be classified according to their loan base and according to the method employed in determining their level. Their base can be the whole loan portfolio—although some countries exclude loans to the central government and other “safe” loans—or specific categories of eligible loans. The methods employed to ascertain the adequate level of a general provision range from a fixed percentage of eligible loans, to a moving average of the percentages of bad loans to total loans within the group of eligible loans based on a bank’s past experience (“experience method”), or to more judgmental approaches based on loan analysis. Additionally, some countries avoid the adoption of a fixed method and leave the choice to the discretion of the bank (as in Switzerland and Austria).

The dividing line between specific and general provisions for loan losses—and occasionally between provisions and write-offs—

\(^\text{14}\)The effect of specific provisions on capital adequacy requirements is double: (1) by reducing the balance of assets, they indirectly lessen capital requirements; and (2) by reducing the amount of profits available to meet the capital requirements they preclude the distribution of profits that otherwise would have been available for this purpose.

\(^\text{15}\)In this case, the reserve for loan losses is generally considered Tier II capital. France, however, allows the use of part of this reserve as Tier I capital.
although clear from an analytical viewpoint, is sometimes fuzzy at the operational level. Reviewing banking practices, it is easy to find many instances where the distinctions are purely conventional. In particular, specific provisions relating to some loans or loan pools are often indistinguishable from general provisions. For example, most banks determine the level of their specific provisions on a pool of consumer loans with small individual face value on the basis of statistical methods or other predetermined formulae without resorting to an individualized examination of loans. Also, some banks create specific provisions on most loans to a specific industry if that industry is undergoing unusually severe economic difficulties and there has been a surge in defaults by borrowers from that industry. Likewise, the deterioration of general economic or political conditions in an emerging economy may prompt international lenders to create specific provisions against all loans to debtors from that country. In turn, partial write-offs may be considered similar to specific provisions in economic implications if not in their accounting.

**Existing Methods of Tax Deduction of Loan Losses**

Existing methods of tax deduction for loan losses pertain to two broad categories: (1) the *charge-off method* requires that a debt be uncollectible and written off at the time the tax deduction is claimed; and (2) the *provisions (or reserve) method*, which allows the tax deductibility of eligible provisions for bad and doubtful debts without requiring a book write-off of the underlying asset. Paralleling accounting practice, tax-deductible provisions may be general (general provisions method) or specific (specific provisions method). A description of the tax deduction methods used in a sample of countries for which detailed information was available can be found in the Appendix.

The *charge-off method* is employed in Australia and the United States.\(^{16}\) Under the charge-off method, an expense is recognized for bad debts only as they become either wholly or partly worthless and are written off the books (both Australia and the United States allow partial write-offs). When areceivable is determined to be irrecover-
able in whole or in part, its value is reduced by the amount deemed irrecoverable and an expense is recognized for tax purposes in an equal amount. The tax deduction must be claimed in the year in which the debt loses its value and is written off. Thus, evidence must exist that the debt had some value at the beginning of the period and that some event occurred during the year that prompted the loss. In determining worthlessness of a debt, all pertinent evidence, including non-performance, adequacy of collateral, and debtor’s financial condition, may be considered. The debt, however, must not be merely doubtful or otherwise substandard; rather, it must be considered uncollectible. In the United States, debt worthlessness can be presumed for tax purposes in the case of write-offs pursuant to a regulatory order.

The *provisions method* may take several forms according to the type of provisions that qualify for the tax deduction and the degree of conformity between allowed tax provisions and regulatory provisions and reserves. Under the *specific provisions method*, additions to regulatory specific provisions are often tax deductible. Nevertheless, in some countries the tax authority chooses to modify the timing or level of the specific provisions that are allowed for tax purposes. For example, in the United Kingdom, the Inland Revenue matrix employed to compute tax-deductible specific provisions against loans to selected developing countries is different from the corresponding matrix employed by the Bank of England for regulatory purposes. Other countries, while taking regulatory specific provisions as a basis for the tax deduction, set quantitative caps (in Canada, country risk provisions for loans to developing countries are limited to 45 percent of the principal) or additional qualitative requirements.

Under the *general provisions method* (also called the “general reserve method”) the tax deduction is computed as the necessary addition to the general provision to bring its opening balance, adjusted for write-offs that occurred during the period, to the allowed closing balance. As mentioned above, the allowed closing balance is usually determined as a percentage of eligible loans. This percentage may be a fixed coefficient across taxpayers or may be computed on the basis of the taxpayer’s past experience. It should be noted that the prescription of a maximum closing balance of the provision does not imply any constraint on the amount of bad debt identified and written off during the period that can be charged against the taxable base. This is because when bad debt is written off, it is charged against the provision, reducing its balance. This, in turn, increases the tax-deductible addition necessary to bring the closing balance of the provision to any given level.

By and large, specific provisions appear to be the most common form of determining tax deductions for loan losses. However, in
France, Italy, Japan, Luxembourg, Spain, and Switzerland, various forms of general provisions are allowed for tax purposes. Nonetheless, in most of these countries, the tax authority sets restrictions on the deductibility of general provisions, often establishing a ceiling as a percentage of relevant assets (Italy, Japan) or explicitly disallowing some general provisions (France and Spain). Although no single method of determining the tax deduction for loan losses has been uniformly adopted internationally, a tendency can be observed to constrain or disallow for tax purposes precautionary general provisions for future loan losses and to deny tax deductions for hidden reserves in those countries where these reserves exist.\textsuperscript{17}

\textbf{Comparison of Tax Deduction Methods}

The guiding principle regarding the tax treatment of loan losses should be that the allowed tax deduction matches as closely as possible the accrued deterioration in the economic value of a bank’s portfolio of loans. In practice, however, the precise timing and extent of the economic loss are difficult to ascertain. An exact measure of the economic value of a loan portfolio would need to be based on the overall stream of future payments (including principal and interest) that can be expected, given the relevant information available at the moment of the valuation—that is, the expected present value of the portfolio conditioned on existing information. Nevertheless, for practical purposes, only the deterioration in the expected realization value of the principal of the loans in the portfolio may be subject to a reasonable standardized assessment.\textsuperscript{18} The economic impact of different

\textsuperscript{17}Hidden reserves are the result of deliberate undervaluation of assets in the balance sheet.

\textsuperscript{18}Methods of loan valuation based on present value are still rarely employed for statutory accounting (see V.A. Beattie and others, \textit{Banks and Bad Debts} (Chichester, United Kingdom: Wiley, 1995)). Their development and standardization would represent an important step toward a more accurate measurement of the potential market value of loans.

The method of portfolio valuation based on the expected realization value of the principal of the loans approximates the economic value (that is, the expected present value) of a portfolio if the deterioration of that value occurs evenly throughout the life of the loan portfolio (as a proportion of outstanding performing loans). On the other hand, the economic value of a portfolio with defaults concentrated at the beginning (or end) of its life would be underestimated (or overestimated) by valuation methods based only on perceived deterioration in the expected realization value of the principal. This is because risk premium income accrues throughout the life of a loan portfolio in proportion to outstanding performing loans while bad debts may be concentrated in the earlier or later periods of a loan portfolio. The discussion that follows abstracts from this source of distortion.
methods of tax deductibility of loan losses hinges on the timing of recognition of this deterioration in the collectibility of the principal.

In this light, the general provisions method typically embodies an anticipated deduction. Under the general provisions method, the allowed balance of the tax-deductible provision is computed as a percentage of outstanding loans at the time of the closing balance. Therefore, the issuance of new loans during the year will automatically generate a tax deduction (equal to the given percentage of the principal) even when no new information has become available since the loan was disbursed that indicates a deterioration in the value of the loan. Thus, a deduction contemporary to the issuance of the loan is taken in anticipation of losses that are forecast to occur at some future moment during the life of the loan. In fact, the aim of according an anticipated deduction is often explicitly mentioned in the tax law.

The importance of the tax subsidy embodied in the general provisions method depends, inter alia, on the statutory coefficient used to compute the maximum balance of the provision as a proportion of eligible loans. If this coefficient is a low percentage, the bulk of the tax deduction will need to be taken when the loans are written off. In fact, the lower the coefficient, the more similar a general provision becomes to the charge-off method.

Consequently, overtaxation may also occur under the general provisions method if the tax norms for loan write-offs are excessively restrictive. Under this method, notwithstanding the initial deduction of a fraction of the value of the loan, the write-off and corresponding charge of the full face value against the provision may need to be postponed until well after the loan has lost its economic value. Restrictions on writing off loans also diminish the tax deduction via a decline in the coefficient used to compute the allowed level of the provision because this coefficient is often computed on the basis of past write-offs. Overtaxation will occur whenever the loss associated with delays in obtaining the tax deduction of the nonprovisioned fraction of the principal exceeds the tax subsidy implied by the initial anticipated deduction.

If a general provision is determined on the basis of a fixed coefficient across asset categories with different levels of intrinsic risk, those assets with the lower risk will be favored over those with higher risk. For example, when the coefficient is the same for all taxpayers, independent of their loan loss history and the composition of their portfolio, low-risk portfolios will enjoy the same tax deduction as other higher-risk portfolios while experiencing lower loan losses.

Under the charge-off and specific provisions methods, the tax deduction is triggered respectively by loan write-offs and by credits to
the provision account. Therefore, whether over- or undertaxation occurs hinges on the conditions under which the taxpayer may take those actions. When the specific provisions method is used, once a loan has been provisioned in full and the corresponding tax deduction has been taken, the timing of the write-off is irrelevant from a tax standpoint. On the other hand, if the provisioning rules are restrictive, the taxpayer may be forced in many cases to write off a loan in order to obtain the tax deduction. In fact, as the provisioning rules are more restrictive, the specific provisions method approaches the charge-off method for all practical purposes. Conversely, if the charge-off method allows for partial write-offs, the difference between the charge-off and the specific provisions method may become reduced in some cases to accounting methodology.

Both the charge-off and specific provisions methods can suitably match the tax deduction to the occurrence of the economic loss since both have the potential to link the timing of the tax deduction to identified events that reduce the value of specific loans. Specific provisions, however, may offer more flexibility for incorporating pertinent business practices and advances in accounting techniques regarding loan valuation. In contrast, loan write-offs may be subject to constraints beyond the purview of tax and financial policies. A commonly encountered cause of excessive restrictions on write-offs is the requirement that all legal means of collection and, if applicable, all legal actions to execute the collateral be exhausted before a loan is written off. This may be disproportionately onerous if the judicial system is slow, inefficient, or overburdened. Also, banks may be reluctant to write off loans if by doing so the lender relinquishes all or part of the legal claim against the borrower or if the bank feels that a high level of write-offs could damage its public image or the confidence of depositors. In practice, countries that use the charge-off method are considered more restrictive in allowing tax deductions for loan losses.

Tax Treatment of Loan Losses and Incentives to Bear Risk

The tax treatment of loan losses determines the manner in which default costs are deducted from the tax base. A nonneutral treatment of loan losses under the corporate income tax relative to other business costs will either enhance or erode the after-tax return of a portfolio with risk of loan losses vis-à-vis alternative investments. This section summarily describes how incentives to assume risk are altered by the tax treatment of loan losses.
A loan is a contract stipulating a flow of payments to be made by the debtor to the lender. This flow of payments (the service of the debt) includes payment of interest and repayment of principal. The value of a loan for a financial institution at any point in time is generally computed as the expected value of the future cash flows discounted at the prevailing (or expected) interest rate on alternative riskless assets—such as, for example, treasury securities. The expected value of future cash flows depends on the loan interest rate and the probability of borrower default. If the probability of borrower default is perceived by the lender to be high, the loan interest rate will be increased to compensate for the higher risk. The difference between the loan interest rate and the corresponding interest rate on a riskless contract with the same time profile of principal amortization is called the risk premium.

The risk premium compensates the lender for possible defaults—at least a priori, and possibly also a fortiori, on average across loans and over time. That is, the risk premium is the price paid to lenders in order to induce them to assume risk. Market forces tend to ensure that the overall level of risk present in an economy as a whole strikes a balance between the income-risk preferences of lenders and the return-risk profile of investments that are effectively undertaken. A desire by the lenders as a group for higher levels of risk (at the initially prevailing risk premium) would increase the supply of loanable funds for risky investments, driving down the risk premium charged on loans and encouraging borrowers to undertake riskier investments. Conversely, a higher aversion to risk among lenders would prompt the

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19 When interest rates reach very high levels, a problem of “adverse selection” may occur. In that case, only borrowers with high propensity to take up risks will apply for the loans while more prudent investors will abstain from borrowing. As a consequence, the loans will become even riskier and interest rates will further increase, creating a feedback between higher interest rates and higher riskiness of the loan portfolio.

20 The risk premium is similar to the inflationary component of the nominal interest rate on nonindexed loans. The inflationary component compensates the lender for the expected loss in the value of the principal. Default, like inflation, erodes the expected realization value at maturity of a loan contract. Therefore, in both cases the lender demands compensation for the expected erosion in the form of a premium on the interest.

21 If the risk can be neutralized by portfolio diversification, the lender will be risk neutral and the value of the loan contract will equal the expected present value of the flow of future payments as mentioned above. If the risk cannot be diversified away, however, the market value of a loan contract may be lower than the expected present value of the stipulated payments and a higher risk premium may be needed to induce a risk-averse lender to underwrite the loan contract.
opposite result: a higher risk premium would prevent the undertaking of riskier investment projects, which, at the increased interest rates, would become unprofitable.

The mechanism of tax deduction of loan losses may alter the risk premium via changes in the relative prices of assets with different levels of risk, thereby distorting the incentives to undertake risky investments. A distortion of the relative price of safe assets versus risk-bearing assets can be expected because, on the one hand, the tax treatment of loan losses will not alter the price of safe assets, which, by definition, are not susceptible to default. On the other hand, an ill-designed tax treatment of loan losses will distort the price of risky investments.

The relation between the timing of the tax deduction for loan losses and the timing of the associated economic loss is perhaps the most relevant characteristic in assessing possible biases introduced by the tax treatment of bad debts. Indeed, it can be shown that the value of a loan portfolio will not be altered by the income tax if, and only if, a deduction for loan losses is allowed at the time when the actual economic loss accrues. Otherwise, if the tax deduction is advanced or deferred relative to the accrual of the loss, the value of a loan portfolio will be enhanced or impaired, respectively.

In the first case, when the tax deduction is accorded before the occurrence of the associated economic loss, an interest-free loan from the public budget to the bank effectively takes place. Thus, an accelerated tax deduction of future loan losses increases the return on risky investments, creating an incentive to substitute risky loans for safer investments.

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22The argument is entirely similar to that presented in Paul A. Samuelson, "Tax Deductibility of Economic Depreciation to Insure Invariant Valuations," *Journal of Political Economy* (December 1964).

The introduction of an income tax may also alter the price of risky assets by diminishing the variability of its returns: after-tax gains and losses (if losses are fully deductible) will be lower owing to the participation of the public budget. Although this effect would not alter the expected present value of a loan contract, it could alter its—and hence, the equilibrium risk premium—in the presence of risk-averse agents. This is because when agents are not risk neutral, the price of a risky asset does not equal its expected present value but also takes into account the variability of returns. This effect was originally indicated by E.D. Domar and R.A. Musgrave, "Proportional Income Taxation and Risk-taking," *Quarterly Journal of Economics* (May 1944), and has also been studied by, among others, J.E. Tobin, "Liquidity Preference as Behavior toward Risk," *Economic Studies* (1958), M.K. Richter, "Cardinal Utility, Portfolio Selection and Taxation," *Economic Studies* (1960), M.S. Feldstein, "The Effects of Taxation on Risk Taking," *Journal of Political Economy* (September/October 1969), and A.B. Atkinson and J.E. Stiglitz, *Lectures in Public Economics* (New York: McGraw-Hill, 1980).
investments within banks' portfolios. Correspondingly, the risk premium will be driven down until it reaches a new equilibrium level at which banks again become indifferent between assets with different levels of risk. In the end, more financial resources are likely to be devoted to risky lending than in the absence of the tax incentive. This economic logic runs contrary to some arguments that advocate early tax recognition of loan losses and full tax deductibility of precautionary reserves on the grounds that such practices would lead to a sounder and safer financial system by encouraging reserve formation.

Conversely, in the opposite case, when the tax deduction is unduly deferred relative to the actual economic loss, the size of the eventual loss incurred upon borrower default is enlarged. Thus, lenders will increase the risk premium in order to cover the additional loss caused by overtaxation. In this case, resources will be driven away from risky lending and toward safer investments—where the tax-induced cost is lower. In either case, a nonneutral tax deduction for loan losses can be expected to introduce a wedge between the social preference for risk and the risk composition of investments actually undertaken.

**Some Related Topics on Tax Treatment of Bad Debt**

**Tax Treatment of Unpaid Interest**

Unpaid interest on debt constitutes a source of financial losses closely related to loan losses. Uncollectibility of a loan is most often indicated by the debtor's failure to service the debt. In fact, unpaid capitalized interest may greatly exceed the value of the principal. This is particularly likely during episodes of unusually high nominal interest rates such as those associated with high inflation, adjustment policies, external imbalances, or high country risk.

Most tax systems determine the taxable income of banks and financial institutions mainly on an accrual basis. The accrual method of accounting demands that income and expenditure items be recognized as the claim or liability arises rather than when it is settled. Consequently, interest on loans and other investments becomes taxable, in principle, as it accrues rather than when payment is actually received.23 Thus, the fact that a loan has incurred arrears in payment

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23In the United States, even an otherwise cash-basis taxpayer—such as a small bank—must recognize unpaid interest on an accrual basis on most loans (all loans with maturity of one year or less and loans with longer maturities under some conditions).
of interest does not necessarily entail a deduction of the unpaid interest from the taxable base. The rationale for including accrued unpaid interest in taxable income is that the lender acquires upon accrual a claim on the borrower similar in nature and legal status to the claim on the principal. The value of the claim adds to the bank’s assets and hence to its income.

It is apparent, however, that the claim on the unpaid interest can often be presumed to have a value lower than the full interest due or even to be nil. As in the case of the principal of a nonperforming loan, the valuation of the claim on the unpaid interest hinges on an assessment as to its collectibility. When circumstances indicate that the accrual of unpaid interest no longer reflects a genuine increase in the lender’s assets, the loan is reclassified to a nonaccrual status for tax purposes and the interest ceases to be recognized as taxable income.\(^{24}\)

Additionally, when a loan is placed on a nonaccrual status, the value of previously accrued unpaid interest may be reassessed and, if warranted, a tax deduction taken commensurate to the estimated loss. For this purpose, the lender’s claim related to the unpaid interest is often considered of a lower quality than the claim on the principal—particularly in the case of collateralized loans if the value of the pledged collateral does not cover capitalized interest. Thus, the tax deduction of previously taxed unpaid interest and the reclassification of the loan into a nonaccrual status is often accorded before the tax deduction of the principal (for example, before the full provision of the principal is accepted for tax purposes).

**Loan Rescheduling**

The rescheduling of loans is not necessarily associated with an impairment in the value of the debt. In countries characterized by volatile financial conditions, banks may choose to extend most loans as short-term debt as a means to maintain the liquidity of their portfolio.\(^{25}\) Regardless of their short maturity, many of these loans may be routinely used by borrowers to finance what is essentially medium-term investment or working capital. Thus, in regular times, refinancing of loans may constitute a common business practice and even a

\(^{24}\)Financial regulations typically place a loan in a nonaccrual status after interest has not been paid for 30, 60, 90, or 180 days.

sign of good loan performance. During times of financial distress, however, troubled institutions may resort to loan refinancing and rescheduling as a means to avoid the recognition of a sudden deterioration in the value of their portfolio.

In general, for tax purposes, the rollover of an existing loan is equivalent to the recovery of the original loan—and any associated capitalized interest—and subsequent issuance of a new loan. Nevertheless, for financial purposes, the regulatory authority may preclude such treatment in order to avoid overstatement of income by troubled institutions via an overstatement of the quality of their portfolio. In that case, so as not to tax fictitious income, the tax system should not request the reversal of previously made provisions inasmuch as these provisions are also kept for financial purposes.

**Mergers, Acquisitions, and Loan Sales**

Mergers, acquisitions, and sales of impaired loans are often an essential part of the restructuring and consolidation of a troubled financial sector. On these occasions, the tax value of the transferred assets tends to be significantly higher than the value actually realized in the transaction. Specifically, loans may have been insufficiently provisioned prior to the transaction in an attempt to postpone the recognition of insolvency or as a result of overrestrictive tax norms.

Generally, any differences arising upon sale between the book and realization values of assets are incorporated in the tax base at the time of the transaction. Specifically, the sale of a loan portfolio below its book value implies the realization of a loss by the seller. On the other side of the transaction, the buyer restructures the composition of its assets without tax consequences—for example, by swapping cash for loans with a net value (after applicable provisions) equal to their purchasing price.

This type of operation may result in revenue losses to the public budget because the seller is allowed to recognize the loss, upon realization, and is entitled to the associated tax deduction. This loss and the associated tax deduction, however, should be considered legitimate. They are merely the result of reconciling an overstated—and thus, overtaxed—book value with the actual economic value of the assets as priced by the market. This market-driven treatment of loan portfolio transactions becomes even more crucial during episodes of financial distress, when reluctance to recognize the actual value of the assets for tax purposes may hamper a necessary consolidation of the banking sector—which, in turn, may prompt potentially larger budgetary consequences.
A similar situation may arise on the occasion of a bank merger if the new company is not allowed to recognize for tax purposes the true value of the consolidated loan portfolio. The valuation of assets, however, presents more difficulties in the case of a merger since no assets are sold as such and, consequently, a directly observable market price for the loan portfolio is not available.

In either case, the tax treatment of these operations should not stand in the way of banking sector consolidation by, for example, according a more detrimental treatment to banks than is generally available to other taxpayers. Tax credits accumulated by the failing bank (such as losses carried forward) can be allowed to be transferred to the acquiring or newly formed bank to the extent that this treatment does not excessively complicate the administration of the tax or introduce significant inefficiencies.

Conformity Between the Tax and Regulatory Treatment of Loan Losses

International Practice

Banks and other financial institutions are generally subject to tighter financial regulations and supervision than other enterprises. Indeed, bank regulations are often more precise than general tax regulations and the banking supervisory body can usually mobilize substantially greater administrative and staff resources for banking issues than tax administrations. Partly as a result, the regulatory treatment of banks has influenced—and often determined—their tax treatment.

Most countries take regulatory accounting as a reference point to determine taxable income and introduce adjustments as needed. The departure from regulatory income is most prominent in countries that follow the charge-off method (Australia and the United States) but substantial differences also exist in other countries. A tendency can be observed to disallow for tax purposes some general reserves for unspecific banking risks (often including general provisions for loan losses) and hidden reserves.

For example, inefficiencies would arise if the acquiring bank values the tax credits substantially below their nominal value owing to incomplete financial markets or uncertainties regarding their future applicability. In that case, the actual incentive provided by the tax treatment would be substantially below the cost of the incentive to the public budget.
Conformity between tax and book accounting appears higher in Denmark, France, Germany, Luxembourg, and Switzerland where virtually all provisions (general and specific) are tax deductible. Nonetheless, this conformity is typically less than complete: in France, Germany, and Luxembourg, hidden reserves and the general provision for unallocated banking risks are not allowed for tax purposes. It is normal practice in Germany to release the excess portion of provisions not recognized for tax purposes.

In other countries, such as Italy, Japan, and Spain, the tax authority disallows selected provisions or sets caps on their tax deductibility. Thus, in Italy, a bank may deduct the increase in provisions up to an annual maximum of 0.5 percent of total receivables or until the balance of provisions reaches 5 percent of receivables; in Japan, the provision for sovereign debt is limited to 1 percent of loans; and in Spain, general provisions for mortgages and some specific provisions are not tax deductible.

The departure of tax norms from regulatory accounting seems more pronounced in Canada and the United Kingdom, where general provisions are disallowed and specific provisions and write-offs are determined with substantial independence from regulatory accounting. Finally, some countries choose to define book and tax accounting independent of one another. This is typically the case of countries that follow the charge-off method, such as Australia and the United States, where financial provisions are disallowed for tax purposes.

**Analysis of the Issues Involved**

Since financial and tax accounting share at least one primary objective, namely the determination of income, it appears logical that, to the extent possible, regulatory financial accounting serve as a basis for the assessment of taxable income. First, this approach presents the advantage of minimizing administrative and compliance costs for both the taxpayer and the tax administration. Second, it can be argued that the incentive to underreport taxable income provides a counterbalance to the incentive to overreport financial income (or underreport financial losses) to the banking supervisory authority, thereby providing a self-enforcing mechanism to both the regulatory and tax authorities.\(^{27}\)

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\(^{27}\)This counterbalance is likely to be effective in regular times for most banks. In the case of a failing bank undergoing serious financial difficulties, however, the incentive to overstate income is likely to outweigh the advantages derived from a lower tax liability.
The existence of well-designed banking regulations complemented by reliable supervision and monitoring constitutes an important instrument in implementing efficient corporate income taxation of the banking sector. The tax authority can maximize this advantage by designing the tax legislation in a manner that allows the use of accounting categories and information available from the banking supervisory authority. To minimize administrative costs, departures of the tax accounting requirements from regulatory accounting need to be easy to comply with and monitor, and ideally they should be confined to, at most, a few areas without requiring a second set of accounts for tax purposes. Also, tax audits can regularly rely on information, data, and financial assessments provided by the supervisory authority.

Nevertheless, conformity of tax and regulatory provisions cannot be an overriding objective and should be subject to the consideration of specific circumstances. Notwithstanding their common objective of measuring income, the characteristics of regulatory and tax accounting and auditing are not identical. Differences in the regulatory and tax treatment of banks’ income stem from, at least, two factors: (1) the regulatory measure of income may be biased toward underestimating economic income as a means to buttress the solvency of the banking system; and (2) in the presence of measurement errors and incentives for noncompliance, the regulatory and tax authorities may design differently their corresponding norms attempting to minimize opportunities for over- and understating income, respectively.

**Measurement Bias**

Although the supervisory authority is concerned with the correct measurement of economic income, prudential objectives tend to introduce a conservative bent. For a variety of reasons, prudential objectives may prevail in practice over an accurate measurement of economic income when designing some features of the financial regulatory framework. As a result, some aspects of the regulatory measurement of financial income may be geared toward understating income.

Prudential regulations aim, inter alia, to forestall systemic financial crises and to limit the risk borne by depositors and other lenders, thus minimizing the possibility of bank insolvencies. The primary means to address prudential objectives is through capital adequacy requirements. This is usually implemented by setting minimum capital
requirements as a proportion of risk-weighted assets and exposures and by establishing mandatory reserves.\textsuperscript{28}

Existing standards on capital requirements may nevertheless be deemed insufficient since they focus mainly on assurances against intrinsic credit risk—the risk that a loan may become uncollectible as a result of circumstances specific to that particular loan. The experience of recent banking failures and banking crises in a number of countries tends to indicate that intrinsic credit risk is but one of the possible causes of banking sector distress. Other factors—such as off-balance-sheet risks; volatility of capital flows, exchange rates, or interest rates; macroeconomic and external imbalances; deficient market risk management; and so on—may have played, at least, an equally relevant role in the development of bank insolvencies.\textsuperscript{29} Proposals to extend capital requirements to encompass some forms of market risk have only recently been advanced—the 1995 amendment to the Basle Accord (Basle Committee on Banking Supervision, 1995) or the EU Capital Adequacy Directive (Council of the European Communities, 1993)—and their implementation is still limited. The definition of strategies to deal internationally with other types of risk, such as settlement risk, are in an incipient stage.

Countries with diverse institutional, legal, and business traditions, and at different levels of economic and financial development, adopt regulatory and supervisory frameworks that reflect their different circumstances. Some countries may not have fully adopted international standards of capital adequacy or may deem them insufficient. Thus, they may consider it necessary to complement their capital requirements with additional mandatory reserves or strengthened

\textsuperscript{28}See, for example, the Basle Accord (and Basle Committee publications) on capital measurement and capital standards and the European Union directives, including \textit{Directive on a Solvency Ratio for Credit Institutions} (89/647/EEC) (Brussels: EC Council, 1989) and \textit{Directive on the Capital Adequacy of Investment Firms and Credit Institutions} (93/6/EEC) (Brussels: EC Council, 1993).

\textsuperscript{29}Market risk denotes the risk of incurring losses as a consequence of pronounced swings in the market price of financial instruments held by a bank as part of its own portfolio.

provisioning requirements in order to buttress the soundness of their banking sectors, even at the expense of biasing financial accounting practices toward an understatement of income. Furthermore, it is often politically more palatable to require higher provisions against particular balance sheet items or general reserves than to regulate an equivalent increase in the capital adequacy coefficient. This is particularly the case of developing countries where requiring a capital adequacy ratio above Basle standards may be politically problematic while, in fact, systemic risks or the probability of correlated debtor defaults may be higher than in the industrial countries for which the Basle standards were designed.

**Measurement Error**

The measurement of income for either financial or tax purposes is subject to potentially large errors. The sources of error are both the intrinsic difficulty of valuing risky assets with uncertain realization value and the existence of incentives and opportunities for misrepresentation of income. Tax and regulatory authorities regularly need to rely on information provided by banks, which may be presumed to have incentives to conceal the true measure of their income. Thus, regulatory and tax norms need to be designed to minimize the opportunities for over- or understating income, as the case may be.

It is often difficult to discern when a provision that reduces regulatory income is made in recognition of an accrued loss or as a form of precautionary reserve building in anticipation of eventual future losses. For example, this distinction may be buried in the classification of a loan or in the valuation of its collateral. The supervisory authority will tend to design financial regulations with a view to limit more forcefully the probability of overstating income. Thus, it will usually allow to some extent voluntary overprovisioning and will set provisioning requirements mainly in the form of floors. On the other hand, the tax authority will attempt to limit overprovisioning and will tend to set ceilings for provisioning levels. This situation is similar to that of two statisticians trying to design tests for the same hypothesis but aiming to minimize type I and type II errors, respectively: it may not be possible to reduce simultaneously both under- and overestimation.

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30 This difficulty is compounded by the existence in some countries (Germany, Luxembourg, and Switzerland) of "hidden" reserves, consisting of the deliberate understatement of the book value of loans and other assets as a form of provisioning. There is now a clear tendency to eliminate or force the disclosure of these reserves and disallow their tax deductibility.
of income without devoting substantial additional resources—which could be unfeasible or undesirable. Instead, the design of the regulations and the enforcement and supervisory efforts may need to target the main concerns of the tax and financial regulatory authorities. This is often the origin of curtailment or outright disallowance for tax purposes of some of the most open-ended financial deductions from income.

As argued above, it is often not possible, without an in-depth inspection, to separate what constitutes provisions made according to minimum regulatory standards and what constitutes essentially voluntary provisions. As a consequence, it is common that the tax administration be allowed to conduct its own audits and to monitor banks’ compliance independent of the supervisory authority. These tax audits may result in adjustments to a bank’s taxable income that may or may not prompt parallel adjustments in regulatory income, adding another potential source of discrepancy between regulatory and taxable income.

As a consequence of the prudential bias of financial regulations, financial income may be reduced by the formation of mandatory or voluntary provisions aiming to bolster own resources in the bank’s balance sheet. To the extent that these provisions do not reflect an impairment of the bank’s assets value, they cause reported financial income to underestimate economic income. Provisions of this nature are, even when mandatory, a form of reinvestment of profits and increase the bank’s net worth—therefore they should be considered taxable income. Examples of these types of provisions are provisions or reserves for unspecific general risks; provisions or reserves for eventual future losses on foreign exchange holdings or on the proprietary trading portfolio of securities; general provisions for loan losses that can be constituted without any specific indication of loan impairment; and specific provisions against impaired loans above and beyond a reasonable estimate of the occurred deterioration in the value of the loan.

In contrast, those provisions reflecting losses that have already occurred—although possibly not yet realized—should be deductible for tax purposes. Since many assets and liabilities are recorded at historic value until realization or their value is priced to market only occasionally, the accuracy of the balance sheet requires the creation of provisions to capture variations in the value of balance sheet items before their final realization. Examples of these provisions are depreciation provisions for fixed assets and provisions for unrealized (although already accrued) losses on foreign exchange holdings or on the portfolio of marketable instruments. Depending on prevailing reg-
ulations, the regulatory provision for bad debts may share characteristics of both types of provisions: those that increase a bank’s net worth and those that reflect an actual economic loss.

To sum up, a provision should not be tax deductible inasmuch as the provision does not represent an accrued loss but a prudential measure and the provisioning is made before the economic loss in the value of the claim occurs. General provisions for bad loans, made without any specific indication of the uncollectibility of the claim, often fall under this category. In contrast, if the provision represents the recognition of an accrued loss—however unrealized on a cash basis—a corresponding deduction should be allowed for tax purposes.

## Conclusions

Loan losses of banks share the basic characteristics of other business losses prompted by a decline in the value of assets, such as depreciation of fixed assets, inflationary erosion of monetary assets, or market losses in a trading portfolio of securities. Consistent targeting of accrued income as the base of the corporate income tax requires that a tax deduction for loan losses be allowed—ideally matching in timing and amount the impairment in the actual or notional market value of the bank’s loan portfolio. To achieve this objective, indirect valuation methods are needed in most cases since the erosion in the market value of a portfolio of nontraded loans is seldom directly observable.

The tax deduction methods of loan losses vary widely across countries. These methods range from full deduction of general and specific loan loss provisions to complete disallowance of provisioning under the charge-off method. Specific provisions, either alone or in combination with other methods, appear to have been adopted by a larger subset of countries as the means to implement the tax deduction for loan losses. A trend can be observed to disallow or limit the deduction of general provisions for future unidentified losses and general banking risks, and undisclosed reserves. Countries that employ the charge-off method—and consequently disallow the tax deductibility of provisions—enable taxpayers to write down the book value of loans through partial write-offs.

The norms for tax deductibility of loan losses should be designed in the light of prevailing best business and accounting practices to approach as closely as possible the market valuation of a loan. On these grounds, the specific provisions method presents definite advantages in terms of flexibility and transparency. General provisions for
loan losses embody an advanced tax deduction inasmuch as a proportion of the face value of the loan is deducted from the tax base without any indication of loss in the value of the loan. Specific provisions and write-offs may result in over- or undertaxation of lending activities if the prevailing norms are unduly restrictive or excessively open ended.

Whenever the tax deduction for loan losses is accorded in advance or postponed vis-à-vis the corresponding economic loss, lending activities exposed to credit risk are subject to a tax subsidy or penalty, as the case may be. This nonneutral treatment will distort the relative price of alternative investments with different distributions of risk and cash flow profiles and the risk premium associated with loans. If the tax deduction method implies a premature loan loss deduction, an incentive to overinvest in risky lending is created; the converse result obtains if the tax deduction is unduly postponed.

Finally, the degree of conformity between regulatory and tax treatment of loan losses differs among countries. In some countries, full conformity exists (Denmark, Germany, and Switzerland) while in others tax accounting and financial accounting for loan losses are defined with complete independence from each other (Australia and the United States). Most commonly, in order to determine the tax deduction for loan losses, financial loan losses are taken as a starting point and adjusted as needed—often by limiting or disallowing general provisions or by capping specific provisions.

Conformity between tax and regulatory loan losses presents substantial advantages in terms of administrative and monitoring costs. Yet, conformity cannot become an overriding objective and due consideration should be given to country-specific circumstances.
### Appendix. Loan Loss Provisioning Methods: International Comparison

<table>
<thead>
<tr>
<th>Country</th>
<th>Tax Deduction Method</th>
<th>Tax/Regulatory Treatment</th>
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<tbody>
<tr>
<td>Australia</td>
<td>Charge-off method. Deductions for bad debts (principal and interest) are tax deductible only if the debts are shown to be bad—not merely doubtful—and written off during the year of income. Partial write-offs are allowed.</td>
<td>There is no conformity between regulatory and tax treatment. Interest on nonaccrual nonperforming loans and loans in suspense accounts is assessable, although no income has been taken to the profit and loss account. As an exception, interest is not taxable if “on an objective test, it can be concluded that there was a 95 percent certainty that the interest charged would not be received in a relevant year.”</td>
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<tr>
<td>Austria</td>
<td>Provisions may be set up for uncertain liabilities, anticipated losses, and valuation adjustments. Banks must also set up a general liability reserve equivalent to 1.5 percent of assets and 0.75 percent of contingent liabilities.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Belgium</td>
<td>General provisions for bad debt (including the General Bank Fund and hidden reserves) are not allowed for tax purposes. Specific provisions are allowed within one of the following two limits (to be chosen by the taxpayer): a. The annual deduction may not exceed 5 percent of the taxable profits of the year, and the total balance of the provisions may not exceed 7.5 percent of the highest taxable profits of the five preceding years. b. The annual deduction may not exceed 0.2 percent of receivables, and the balance of the provisions may not exceed 0.3 percent of receivables. Debt related to bankrupt companies may be excluded in the computation of the ceilings.</td>
<td>There is no conformity between regulatory and tax treatment.</td>
</tr>
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### Appendix (continued)

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<thead>
<tr>
<th>Country</th>
<th>Tax Deduction Method</th>
<th>Tax/Regulatory Treatment</th>
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<tbody>
<tr>
<td>Canada</td>
<td>Specific provisions method. Contingent and general provisions or reserves are not deductible. Bad debt write-offs and &quot;reasonable&quot; specific provisions for doubtful debts and off-balance sheet items are tax deductible. Special rules apply to developing countries debt, which limit tax-allowable deductions to 45 percent of principal.</td>
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<td>Provisions may be set up for (a) doubtful debts that had previously been included in income (applying mainly to accrued unpaid interest); and (b) doubtful claims acquired in the ordinary course of a “business of insurance or lending of money” (applying to most banking loan loss provisioning). Loan loss provisioning can cover only credit risk and not other sources of erosion in the value of assets (such as interest rate or market risk). Impairment in the value of trading securities is covered as part of inventory accounting.</td>
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<td></td>
<td>Provisions may be created according to the following methods:</td>
<td>Full conformity between regulatory and tax accounting.</td>
</tr>
<tr>
<td></td>
<td>a. Individual loan analysis. This is most common for large commercial or corporate loans. The provision cannot exceed 90 percent of the corresponding regulatory provision.</td>
<td>Full conformity between regulatory and tax accounting.</td>
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<td></td>
<td>b. Loan pools. This is most used for small consumer loans and mortgages. Loans showing indications of uncollectibility (such as arrears) are grouped according to specific characteristics (period of arrears, collateralization and so on) and provisioned according to a bank’s experience.</td>
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<td>Reasonable doubt as to the collectibility of each provisioned loan must exist (for example, arrears for small loans), and the provision must be commensurate to the extent of uncollectibility.</td>
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<tr>
<td>Denmark</td>
<td>Specific provisions method. General provisions are not allowed either for book or tax purposes. There are no specific rules for provisioning levels, and the decision is left to management’s discretion based on financial condition of the debtor, collateralization, and so on. Accounting norms require that assets be valued (net of provisions) at fair value. Banks are allowed to use statistical coefficients (based on three-year experience) for</td>
<td>There is no conformity between regulatory and tax treatment.</td>
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</table>
provisioning pools of small loans (face value below Dkr 300,000). Provisions on country loan pools are also allowed based on country risk analysis. Accrual of interest is stopped when collectibility is deemed doubtful. Interest already accrued is provisioned for as part of the loan provision.

Specific and general provisions methods. Specific provisions are based on individual loan analysis. Statistical analysis may be used in the case of small retail loan pools. Specific rules apply for credit granted abroad to high-risk countries. A limited general provision for medium- and long-term credit is also allowed. Reclassification of a loan as doubtful and corresponding provisioning action is mandatory if (a) the loan is three months in arrears (six months for real estate loans); (b) its recovery is contentious (companies in liquidation or bankruptcy, for example); or (c) there are circumstances that indicate that the debt may not be fully recoverable. Once a debt has been classified as doubtful, all other credit to the same debtor must also be reclassified as doubtful. The level of provisioning is left to management's discretion. Average level of provisioning is about 50 percent for most doubtful loans and 25 to 45 percent in the case of real estate loans.

There exist several types of provisions:

a. Provisions for high-risk accounts. To be tax deductible, provisions must be justified on a debt-by-debt basis. Small retail loans may be assessed on a pooled basis. Every effort must be made to collect the debt.

b. Country-specific provisions. This is a provision for high-risk accounts which are evaluated on a country-by-country basis. It is limited to 60 percent of the principal.

c. Provision for investment abroad. In certain circumstances, a bank that contributes to the establishment of a foreign subsidiary by a French company (through equity participation) may set up a tax-deductible provision during the first five years of the investment. Starting in the sixth year, the provision must be reversed over a period of five years. The level of the provision depends on the amount invested and the country of investment. The provision is subject to prior approval by the tax authority.

d. Provision for medium- and long-term credit. This provision is limited to 5 percent of the accounting profit of the bank and 0.5 percent of eligible loans. This provision cannot overlap with any of the previous provisions.

Conformity exists between tax and regulatory accounting except that the Fund for General Banking Risks (FGBR, a general provision) is not tax deductible. Nevertheless, country risk provisions, which are part of the FGBR, are tax deductible.
## Appendix (continued)

<table>
<thead>
<tr>
<th>Country</th>
<th>Tax Deduction Method</th>
<th>Tax/Regulatory Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>Specific provisions method. General provisions (reserves) are not usually tax deductible. The tax deductibility of hidden reserves and general valuation allowances has been disallowed as of 1988. Specific provisions may be set up if there are indications of a likely default. Their level is left to management's discretion and subject to regular audits. General accounting rules establish that loans should be recorded at recovery value. For the purposes of provisioning, commercial loans are usually assessed on an individual basis. Retail loans can be assessed on a pooled basis in some cases (such as credit card balances and consumer loans). Country risk provisions are based on secondary-market prices and treated as specific provisions. Unpaid interest on doubtful loans is not taxable.</td>
<td>General conformity between tax and regulatory treatment exists. Hidden reserves and the Special Reserve for General Banking Risks are not tax deductible.</td>
</tr>
<tr>
<td>Ireland</td>
<td>Specific provisions method. General provisions are not tax deductible. Tax deductibility of specific provisions is subject to examination of the facts by the tax authority.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Italy</td>
<td>General and specific provisions within an overall limit. The overall annual increase of bad loans provisions is limited to 0.5 percent of total outstanding loans receivable. Moreover, the total balance of tax-deductible provisions for bad debts is also limited to 5 percent of the balance of outstanding receivables. Country risk provisions are normally included in general provisions. Recent guidelines (1992) of the Association of Italian Banks require a 30 percent provision on loans to certain countries. Unpaid interest on nonperforming loans is normally recorded as income and simultaneously fully provisioned.</td>
<td>General conformity between tax and regulatory treatment exists. Nevertheless, the total tax deduction for bad debt provisions is subject to ceilings. The excess (or taxed) provisions become tax deductible only upon write-off.</td>
</tr>
</tbody>
</table>
Japan

General and specific provisions.

**General provisions.** The tax deduction for general provisions is subject to one of the following ceilings, to be chosen by the taxpayer.

a. 0.3 percent of outstanding receivables. Other nonbanking business is subject to higher percentages (from 0.6 percent to 1.3 percent).

b. Average bad debt experience, as a proportion of receivables, during the preceding three years.

The amount credited to the bad debt provision must be fully debited at the beginning of the following business year and added to gross income.

**Specific provisions.** Specific provisions are allowed subject to approval by the Ministry of Finance. The following provisions are usually made.

a. 100 percent of the value of the loan and interest less the value of guarantees, if any, when: (i) at least 40 percent of the value of the claim is considered unrecoverable; and (ii) the debt has not been serviced for one year.

b. 50 percent of the value of the loan and interest when the debtor has filed for bankruptcy or receivership.

c. Provisions for sovereign debt from certain risk countries are allowed for tax purposes. The annual deduction is limited to 1 percent of the increase in outstanding debt from the country.

Accrual of unpaid interest on nonperforming loans is left to the discretion of the bank subject to approval by the Ministry of Finance. Some banks (retail "trust" banks) account for all interest on a cash basis.

Luxembourg

General and specific provisions.

**General provision.** This provision is not mandatory for regulatory purposes, although it needs to be set up for regulatory and financial purposes in order to be tax deductible. This provision is shown netted against assets. The base and coefficients of the provision are the following.

a. Marketable and nonnegotiable financial bills, unsecuritized debtors in current (checking) accounts and advances on demand deposits, and unsecuritized term loans and advances. Coefficient: 1.8 percent.

General conformity between tax and regulatory treatment exists. As an exception, tax deductibility of country risk provisions is subject to an independent ceiling for tax purposes of 1 percent.
### Appendix (continued)

<table>
<thead>
<tr>
<th>Country</th>
<th>Tax Deduction Method</th>
<th>Tax/Regulatory Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b. Rediscounted bills of exchange, acceptances of the bank, other bills, term loans, installment loans, and advances collateralized by ship mortgages. Coefficient: 1.2 percent.</td>
<td>provisions are determined in consultation with the tax authorities.</td>
</tr>
<tr>
<td></td>
<td>c. Other installment credit, collateralized overdrafts on checking accounts and demand deposits, and collateralized term loans and advances. Coefficient: 0.3 percent.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Loans to public administrations and those for which specific provisions have been set up are excluded from the base of the general provision.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Specific provisions.</strong> Specific provisions may be set up according to the bank's discretion. Loans are evaluated on an individual basis. Country risk provisions may be set up according to percentages provided by the tax authority.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unpaid interest on doubtful loans is added to the loan and provisioned (according to the bank's discretion) until it is considered uncollectible.</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td><strong>General and specific provisions.</strong></td>
<td>Full conformity between regulatory and tax treatment exists with the following exceptions.</td>
</tr>
<tr>
<td></td>
<td><strong>General provision.</strong> Minimum levels of general provisions are mandated (subject to sufficiency of specific provisions) by the Bank of Spain. Their bases and levels are the following.</td>
<td>a. General provision on loans collateralized by real estate (0.5 percent).</td>
</tr>
<tr>
<td></td>
<td>a. All loans and credit, excluding those collateralized by real estate and European Union sovereign debt. Coefficient: 1 percent.</td>
<td>b. Specific provisions on loans to political parties, associations, and companies related to them.</td>
</tr>
<tr>
<td></td>
<td>b. Loans and credit collateralized by real estate. Coefficient: 0.5 percent.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Loans for which specific provisions exist are excluded from the base of the general provisions.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Specific provisions.</strong> Detailed statutory rules govern the minimum level of provisions based on period of arrears, collateralization, country risk, and so on.</td>
<td></td>
</tr>
</tbody>
</table>
The following schedule applies to most overdue credit:

<table>
<thead>
<tr>
<th>Minimum Provision</th>
<th>Collateralized credit</th>
<th>Other credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>25%</td>
<td>over 3 years</td>
<td>6-12 months</td>
</tr>
<tr>
<td>50%</td>
<td>over 4 years</td>
<td>12-18 months</td>
</tr>
<tr>
<td>75%</td>
<td>over 5 years</td>
<td>18-20 months</td>
</tr>
<tr>
<td>100%</td>
<td>over 6 years</td>
<td>over 21 months</td>
</tr>
</tbody>
</table>

Overall country risk provisions must be at least 35 percent of the value of eligible loans. Additionally, the following coefficients apply to country risk provisions.

<table>
<thead>
<tr>
<th>Country risk</th>
<th>1 year overdue</th>
<th>2 years overdue</th>
<th>3 years overdue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very doubtful</td>
<td>50%</td>
<td>75%</td>
<td>90%</td>
</tr>
<tr>
<td>Doubtful</td>
<td>20%</td>
<td>35%</td>
<td>—</td>
</tr>
<tr>
<td>Temporary difficulties</td>
<td>15%</td>
<td></td>
<td>—</td>
</tr>
</tbody>
</table>

Interest on doubtful loans is not included in taxable income.

General and specific provisions. There are no specific rules, and the decision as to the level and opportunity of general and specific reserves is left to management's discretion, subject to approval by the tax authority. Tax guidelines applied by the tax administration vary from canton to canton.

Hidden (undisclosed) reserves are normally tax deductible. For the purposes of specific provisions, commercial loans are normally assessed on a loan-by-loan basis, while retail loans are generally assessed on a pooled basis. The Swiss Banking Commission issues specific recommendations regarding country risk provisions.

Unpaid interest, when collection is doubtful, may not be recognized in the profit and loss account. Although there are no specific rules establishing when collection is doubtful, draft legislation suggests, at the latest, 90 days after payment is overdue.
## Appendix (concluded)

<table>
<thead>
<tr>
<th>Country</th>
<th>Tax Deduction Method</th>
<th>Tax/Regulatory Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>Specific provisions. General provisions are not tax deductible. Specific provisions are tax deductible, provided that management has reasonable evidence that the provisioned amount is irrecoverable. Generally, individual valuation of loans is required. Country risk provisions are based on the Inland Revenue matrix. This matrix generally allows lower provisions than those established by the matrix of the Bank of England.</td>
<td>General provisions, although mandatory, are not tax deductible. Tax deductibility of specific provisions subject to criteria established by tax law and the Inland Revenue, which may differ from regulatory guidelines. Specific tax-deductible provisions cannot exceed the corresponding regulatory provisions.</td>
</tr>
<tr>
<td>United States</td>
<td>Charge-off method. Provisions, either general or specific, are not tax deductible. Loan losses are deductible when the debt becomes wholly or partially worthless and is written off in the books. Partial write-offs are allowed. Some exceptions to the charge-off method are allowed. Some country risk provisions (the &quot;allocated transfer risk reserve&quot;) are tax deductible. Banks with consolidated assets below US$500 million may use the general reserve method. Unpaid interest continues accruing until it is deemed uncollectible according to specific criteria established for tax purposes.</td>
<td>There is no conformity between regulatory and tax treatment. Write-offs pursuant to a regulatory order are allowed for tax purposes' Interest on nonaccrual nonperforming loans is usually assessable beyond the &quot;90 day&quot; regulatory limit, although no income may have been taken to the profit and loss account.</td>
</tr>
</tbody>
</table>


1Corresponds to 1995-96. Currently, the Ministry of Finance is preparing a comprehensive reform of the tax treatment of financial institutions.

2Principal and one year of interest guaranteed by real estate collateral.
Julio Escolano’s paper, “Tax Treatment of Loan Losses of Banks,” provides a comprehensive discussion of the issues by adopting an international comparative perspective. In the following comments, I have attempted to summarize and discuss the basic themes and conclusions of Escolano’s paper. Since his emphasis is on the fiscal aspects of taxing loan losses, my focus will be directed to the relevance of the tax treatment for prudential standards and banking system soundness, which should be of particular interest to central banks and bank supervisory agencies.

Escolano offers two reasons why the tax treatment of loan losses should be of interest to fiscal authorities. First is the concern that a poorly designed tax treatment of loan losses may lead to a decline in tax revenue. Second is the fact that international convergence in defining credit risk and capital adequacy establishes a common basis for an internationally harmonized tax treatment of loan losses. A third reason might be that introduction of an adequate regime of tax deductibility of loan losses sometimes entails major revenue shortfalls in the short run. Even though such revenue shortfalls occur only once (and are not a permanent reduction of revenue), such a one-time expense may be sizable relative to the country’s budget. This problem has occurred in many transition countries. One policy response would be to cushion the budgetary impact through a phase-in period.

Although not treated directly in the paper, the issue of the tax treatment of loan losses is of great interest to banking authorities because a well-designed tax system constitutes a strong positive incentive for prudent bank behavior. When banks have a financial interest in adequately recognizing losses, they will be more motivated to do so than without such an incentive. On the other hand, poorly designed tax treatment of loan losses weakens prudential incentives.¹

This is a pragmatic observation, which recognizes that bank managers have a tendency to postpone recognition of losses because in the short run it lowers their profits. Experience shows that management

almost always prefers to postpone the bad news for some later point. Of course, it could be argued that regardless of the tax system, prudential rules (supported by accounting and disclosure requirements) can also force banks to recognize loan losses and are equally effective. This is true, but enforcing such rules (whether by the authorities, by independent auditors, or by bank shareholders) is labor intensive, time consuming, and, therefore, expensive. Enforcement also adds to the cost of capital. When bank supervisors can operate with a tailwind from the tax system, they can economize on such expenses, and the banking system can provide services more efficiently.

The banking authorities have a strong self-interest in a well-designed tax system. From this observation, an important policy implication follows: where tax rules fail to permit adequate tax deductions for loan losses, the banking authorities should be actively engaged in a dialogue with the relevant authorities in order to introduce a satisfactory tax regime. A case in point was the international debt crisis in the 1980s. Banking authorities in many countries became involved in coordinating the prudential and tax aspects of writing down problem cross-border loans held by commercial banks. This was done to make it easier to reschedule debts. The case of "country loans," as these were called, has remained a special and exceptional case. However, as globalization of banking markets proceeds, the coordination of regulatory and tax issues becomes relevant for all aspects of bank lending.

The basic thesis presented in Escolano's paper is that loan losses constitute a necessary business expense of engaging in lending activity and should, therefore, be deducted from the tax base; loan losses are equivalent to the depreciation of fixed assets. It would be useful to explore this parallel more fully. As in the case of bank loans, the monetary value of fixed-asset depreciation is not always readily observable and must be estimated. While depreciation allowances are widely recognized as a tax-deductible expense, the tax treatment of loan losses is controversial in many countries. It can be a useful exercise to illustrate (as is the case in many countries) that the estimates for loan losses are based on much more objective indicators and much more closely mirror the loan's current market value than other depreciation schemes. This is a strong argument in favor of granting tax deductibility of loan losses.

If one accepts the tax deductibility of loan losses, when should these losses be recognized? Correctly, Escolano states that a loan loss should be recognized as soon as an economic loss has occurred. But what is the definition of an economic loss? Although there is no unambiguous operational definition, economic losses must be defined
within a given institutional, legal, and accounting environment. Because there are significant differences among countries, making a globally valid definition of economic loss nearly impossible. Therefore, Escolano tries to determine the most suitable method to approximate economic losses.

What is the best method to reflect the economic loss? Escolano discusses three different approaches to recognize an economic loss and, justifiably, concludes that the "specific provisioning" method appears to be best. This approach suggests that an economic loss occurs when a bank recognizes a reduction in the current value of a loan by establishing a specific provision. Of course, as an accounting principle, a specific provision is a cost item; it is (or should be) booked on the asset side of the balance sheet as a "contra-account," thus lowering the value of total assets. The specific provisioning approach for the tax treatment of loan losses builds on loan valuation methods developed and applied for prudential and risk management purposes.

The specific provisioning method has several elements. It is worth expanding on Escolano's conclusion that the specific provisioning method is mostly successful in capturing losses soon after they have occurred. Banking authorities in many countries apply loan classification systems whereby each loan is categorized in classes such as "substandard," "doubtful," and "loss." Such systems use specified indicators of declining loan value, including criteria such as the number of days debt payments are overdue, bankruptcy of the borrower, and so on. For each class of loans, banks may be required to set aside a required provision, for example, 25 percent for "substandard," 50 percent for "doubtful," and 100 percent for "loss." Such rules and provisioning requirements may be set up either by bank regulators or by the banks themselves (and should be subject to scrutiny by external auditors). There is no single best system to account for depreciating values of loans. A good model, of course, should fit the national institutional setting, as well as the type of loans offered in the banking market. From a prudential point of view, what counts is that such a system has proven to reflect loan performance accurately, that it is internally consistent and stringently applied. Under such circumstances, it should be broadly acceptable to the fiscal authorities as a guideline for tax deductibility as well.

An important point to emphasize is that loan classification systems reflect an estimate of the actual (current) market value. They do not reflect anticipated (future) losses, as is often falsely assumed. The interpretation of loan loss provisions as anticipated, as opposed to actual losses has led the tax authorities in some countries to refuse tax deductions for specific provisions.
In which countries are there controversies between fiscal and monetary authorities over the tax treatment of loan losses? Escolano approaches this issue by looking at the conformity between regulatory and tax treatment. The sample is limited to industrial countries and within the sample four different groups are identified: the “high” conformity countries, such as Denmark, France, and Germany, the “low” conformity countries, including Australia and the United States, and two groups of countries in between. Grouping countries by “conformity,” however, poses some problems. First, conformity is only a positive sign if the prudential system is adequate and well enforced. Second, conformity of rules does not necessarily permit any conclusions on the actual tax burden. As illustrated in the case of the United States, low conformity of tax and regulatory approaches does not necessarily mean that on any given asset portfolio, U.S. banks are subject to a higher tax burden than are their counterparts in Germany, a country with high conformity. As pointed out earlier in the paper, even though U.S. tax rules do not permit the tax deductibility of specific loan loss provisions, the method used in the U.S. (the charge-off method) in practice turns out to be very similar to the specific provisioning method, because of the possibility of partial loan write-offs.

This example shows that a “ranking” of countries’ tax deduction rules, according to the degree to which they reflect economic loss, remains a difficult task. Conformity of rules, as such, does not appear to provide a satisfactory answer. Defining best practice standards of appropriate tax and regulatory treatment of loan loss provisions is, perhaps, an area for future research.
Discussion

Mr. Wang asked whether there should be harmonization in general provisioning among countries, and whether general provisions should be tax deductible. Mr. Ebrill responded that provisioning depended on conditions in each country. On deductibility, he noted that general provisioning is anticipatory and is in effect capital put aside for potential future loss, and does not therefore represent actual economic loss. Nevertheless, tax deductible provisions give incentives for better bank management. Ms. Dziobek noted that the term “general” is used in different ways in different countries, as it is sometimes used to refer to specific provisioning. It would be preferable to use the Basle standards definitions. Mr. Ovi asked whether tax deductibility also applied to the business sector, and noted that if not, this practice would represent a subsidy to the banking sector. Mr. Ebrill noted that provisioning for bad loans was treated similarly in the banking and corporate sectors.
Part IV

The Role of the Central Bank During Problems of Banking Soundness
In the first half of the 1990s, Japan’s financial system experienced a disturbance of a magnitude not experienced since the prewar financial crisis almost half a century ago. Financial institutions came to be burdened with substantial nonperforming loans, most of which were related to real estate, and the resulting loss of interest income and charge-off costs seriously impaired their financial condition. At the peak, the total amount of nonperforming loans was, on a gross basis, equivalent to 8.5 percent of nominal GDP. As a result of concerted efforts by both the public and private sector, however, this figure has been reduced to 6.0 percent, as of the end of September 1996 (Figure 1). On a net basis—after deducting the portion covered by collateral or loan loss provisions—the figure stands at 1.5 percent, a reduction of 2.4 percentage points in 12 months (Table 1). Moreover, legislative action taken in June 1996 has provided an institutional framework within which remaining issues can be smoothly resolved. Thus, although the problem lingers, steady progress has been made toward its solution. The next challenge is to reconstruct an efficient and stable financial system without delay, taking account of the lessons learned from the nonperforming loan problem. This paper examines, from the central bank’s point of view, how it has coped with the problem, what it has learned, and how such lessons should be incorporated into construction of a new financial system for Japan.
Figure 1. Nonperforming Assets: United States and Japan

<table>
<thead>
<tr>
<th></th>
<th>Nonperforming assets/nominal GDP</th>
<th>Nonperforming assets/total assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Japan</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Japan (Showa crisis)</td>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

Notes: For the United States, nonperforming assets include noncurrent or restructured loans and leases, and other real estate owned by insured commercial banks, saving banks, and S&Ls. (Figures for S&Ls are estimated from available information.) For Japan, nonperforming assets include loans to borrowers in bankruptcy, past-due loans, and restructured loans held by depository institutions. Asset-to-GDP ratio based on U.S. data for 1991 and Japanese data for 1930 and FY 1995.

Causes of the Nonperforming Loan Problem

In the latter half of the 1980s, stock and land prices in Japan continuously soared, leading to an economic “bubble” that finally burst at the beginning of the 1990s. The seeds of the nonperforming loan problem were planted during this bubble economy by the speculative behavior of financial institutions.

What gave rise to the speculative bubble is yet to be fully answered. It is noteworthy, however, that the bubble phenomenon was not unique to Japan. Indeed, similar problems of greater or lesser severity were observed in many countries, including the United States and the Scandinavian countries at periods not too distant from one another. Easy money and financial deregulation seem to have played a part, but to single out one cause is practically impossible. The truth may be that various factors interacted with one another in a complex formula, like a chemical reaction.

In Japan, the excessive concentration of economic functions in Tokyo and the tax and accounting treatment that encouraged land
## Table 1. Non-performing Loans of Depository Financial Institutions
*(As of September 1996; in billions of yen)*

<table>
<thead>
<tr>
<th></th>
<th>Nonperforming Loans</th>
<th>Special</th>
<th>Unrealized</th>
<th>Operating Profits</th>
<th>Equity Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Loans</td>
<td>LBB &amp; PDL</td>
<td>Restructured Loans¹</td>
<td>Account for Loan Loss Write-Offs</td>
<td>Gains on Listed Securities</td>
</tr>
<tr>
<td>City banks</td>
<td>277,055</td>
<td>10,951</td>
<td>8,000</td>
<td>2,951</td>
<td>5,600</td>
</tr>
<tr>
<td>Long-term credit banks</td>
<td>51,462</td>
<td>2,721</td>
<td>2,315</td>
<td>407</td>
<td>1,137</td>
</tr>
<tr>
<td>Trust banks²</td>
<td>58,285</td>
<td>3,741</td>
<td>2,825</td>
<td>916</td>
<td>1,504</td>
</tr>
<tr>
<td>Twenty major banks</td>
<td>386,802</td>
<td>17,414</td>
<td>13,140</td>
<td>4,273</td>
<td>8,241</td>
</tr>
<tr>
<td>Regional banks</td>
<td>135,061</td>
<td>3,397</td>
<td>2,835</td>
<td>562</td>
<td>1,677</td>
</tr>
<tr>
<td>Regional banks³</td>
<td>52,585</td>
<td>2,185</td>
<td>1,888</td>
<td>297</td>
<td>796</td>
</tr>
<tr>
<td>All banks</td>
<td>574,448</td>
<td>22,996</td>
<td>17,863</td>
<td>5,132</td>
<td>10,714</td>
</tr>
<tr>
<td>Cooperative institutions⁴</td>
<td>129,934</td>
<td>6,233</td>
<td>5,989</td>
<td>244</td>
<td>1,855</td>
</tr>
<tr>
<td>Total</td>
<td>704,382</td>
<td>29,228</td>
<td>23,852</td>
<td>5,376</td>
<td>12,569</td>
</tr>
</tbody>
</table>

Note: LBB denotes loans to borrowers in legal bankruptcy, and PDL, past-due loans. Figures based on reports to Ministry of Finance.

¹Among restructured loans, those to *jusen* have been disposed of through transfers to the special account for loan loss write-offs (¥3,740 billion). Financial institutions have also abandoned ¥614 billion in loans to *jusen*. Restructured loans do not include loans the interest rates on which exceed the discount rate. Restructured loans do not include loans to borrowers under financial rehabilitation. The amount outstanding of such loans held by 20 major banks as of September 1996 was ¥3,724 billion. The corresponding figure for end-March 1996 was ¥3,795 billion.

²Trust banks hold special reserves for loan write-offs in loan trust accounts amounting to around ¥400 billion.

³Former Sogo banks, which were of mutual status and have turned into ordinary banks from February 1989.

⁴Cooperative institutions include Shinkin banks, credit cooperatives, labor credit associations, the Shokochukin Bank, Norinchukin Bank, and credit federations of agricultural cooperatives. Excludes Kizu Credit Cooperative, Fukuiken-daichi Credit Cooperative, Osaka Credit Cooperative, and Taiheiyo Bank.
ownership are said to have contributed to the bubble. Moreover, it cannot be denied that protracted easy monetary conditions, the outcome of a policy that kept a nervous eye on exchange rates, might also bear some responsibility.

Against such a background, and with Japan being a huge capital exporter, it was practically taken for granted that interest rates would remain at low levels. Thus, excessive confidence in Japan's economy developed. Last but not least, there was a deep-rooted myth that land prices would never stop rising. Increases in asset prices only fueled expectations of further increases, enticing certain businesses to make speculative investments. The funds invested were mostly borrowed from financial institutions or raised by issuing bonds. Financial institutions, for their part, satisfied this appetite for borrowing with a generous lending stance. At that time, deregulation of the capital market was under way, eroding the long-standing relationship that financial institutions had enjoyed with large business entities. In search of alternative sources of income, financial institutions turned to smaller business entities and real estate developers. Therefore, a significant portion of the increase in lending during the bubble period was directed to these new borrowers; the excessive risk undertaken by financial institutions was nourished by groundless optimism, which only caused the bubble to swell further. The nonperforming loan problem was the unwelcome aftermath of a vicious circle during the bubble economy.

When, at the beginning of the 1990s, low interest rates were reversed and measures taken to contain land prices, expectations of rises in stock and real estate prices were dampened, and the mechanism that had created the bubble began to work in reverse. Selling pressure intensified in the stock and real estate markets, and the bubble burst. With the ensuing sharp depreciation of asset prices, many business entities that had been engaged in speculative investment using borrowed money fell into difficulties. The loans extended to these entities were impaired and began to press heavily on the lending institutions. Such problems, in turn, impaired the functioning and credibility of the financial system as a whole. Meanwhile, the deterioration of assets among businesses and financial institutions, often called the "balance sheet problem," worked as a strong damper on the nation's economic recovery, which started in the fall of 1993. Moreover, since the international financial markets are far more integrated than fifty years ago, unrest in Japan's financial system could not be ignored from the viewpoint of the stability of the global financial system.
Disposal of Failed Institutions and the Bank of Japan's Response

A review of the measures to cope with the nonperforming loan problem reveals that, at least in the early stages, no comprehensive and effective measures were adopted and that, as a result, responses were delayed. In retrospect, the following may be cited as some reasons for the delay:

(1) Since an early economic recovery was expected, a continuous decline in land and stock prices was presumed unlikely. Thus, many troubled financial institutions were considered capable of restoring soundness by themselves as the economy recovered;

(2) It was widely believed that, even if some small financial institutions failed, traditional measures such as mergers and acquisitions by other sound institutions would continue to be carried out;

(3) Since no financial institution had gone bankrupt in the postwar period, there was deep concern about the social cost of allowing a financial institution to fail—the threat of credit unrest and its adverse repercussions on society were thought to be significant; and

(4) It was presumed that the use of public funds for the disposal of failed institutions would meet with considerable public criticisms.

Of course, some measures were taken. For example, to promote the write-off of nonperforming loans, provisions to qualify under the "Provisions in Special Accounts for Loan Loss Write-Offs" (a means of effecting tax-exempt charge-offs) were eased in September 1992. Later, in January 1993, the Cooperative Credit Purchasing Company, capitalized by private financial institutions, was established; the company is funded by borrowing from financial institutions and purchases nonperforming loans at fair value. As such, the scheme was intended to clean up the balance sheets of financial institutions by treating the differences between book value and fair value as sales losses. However, they were no more than stopgap measures.

As the related authorities, including the Bank of Japan, the Ministry of Finance, and local governments, became aware of the seriousness of the situation, they began, in close cooperation, to adopt more aggressive measures for the resolution of the nonperforming loan problem. Following the announcement of a disposal scheme for two credit cooperatives in Tokyo in December 1994, the authorities promptly proceeded with the disposal of other financial institutions under the then existing institutional framework. In the two years since, they have disposed of more than a dozen small and medium-sized depository institutions (Appendix I). In working out the disposal schemes, the following factors were taken into consideration:
the huge overhang of nonperforming loans in the financial system;
the still inadequate disclosure practices of financial institutions;
and
depositors not having enough information or sufficient experience to assess the soundness of financial institutions in which they deposited their money.

Thus, the fundamental principle was to protect all depositors, for the time being, to ensure financial system stability. The losses incurred by failed financial institutions were partly covered by the Deposit Insurance Corporation and sometimes by additional contributions from related financial institutions. In addition, in some cases, the Bank of Japan provided funds.

**Involvement of the Bank of Japan**

The Bank of Japan provided funds for the disposals of certain financial institutions. First, with respect to the disposals of the *Tokyo Kyowa Credit Cooperative* and *Anzen Credit Cooperative* announced in December of 1994, the Bank of Japan and private financial institutions jointly established, with a ¥20 billion capital contribution, a new bank named the *Tokyo Kyodou Bank*. The *Tokyo Kyodou Bank*, accepting financial assistance from the Deposit Insurance Corporation, which provided ¥40 billion in the form of a grant and from private financial institutions, assumed the business operations of the two failed credit cooperatives, thus protecting all depositors and handling the nonperforming loans.

In July 1995, the *Cosmo Credit Cooperative* was ordered by its regulatory and supervisory authority, the Tokyo metropolitan government, to suspend business operations. Subsequently, its business was entirely taken over by the *Tokyo Kyodou Bank*, which obtained grants from the Deposit Insurance Corporation (¥125 billion) and private financial institutions, as well as loans from the Bank of Japan (¥220 billion). These loans are intended to support earnings and to compensate private financial institutions for the loss incurred by *Cosmo Credit Cooperative*. The central bank also extended bridging loans in the minimum amount necessary to repay deposits until the disposal plan was implemented and financial assistance was extended by the Deposit Insurance Corporation. Meanwhile, the Tokyo metropolitan government is to give a ¥20 billion grant over the next ten years to the Tokyo Society of Credit Cooperatives, which purchased collectible nonperforming loans.
In August 1995, the Kizu Credit Cooperative was ordered by its regulatory and supervisory authority, the Osaka local government, to suspend business operations. The Ministry of Finance drafted a preliminary resolution package in November 1995, by which all business operations were to be transferred to the Resolution and Collection Bank (the Tokyo Kyodou Bank at the time) and the Deposit Insurance Corporation special financial assistance extended to cover all losses incurred in excess of the payoff cost limit. Such financial assistance necessitated some legal amendments, which were implemented in 1996. Since then, related parties have been deliberating final settlement, and the disposal scheme is expected to be put into effect at a relatively early time in 1997. In the meantime, the Bank of Japan has extended bridging loans in the minimum amount necessary to repay deposits until the disposal scheme is put into effect.

At the end of August 1995, the failure of a tier 2 regional bank in the Kansai region, the Hyogo Bank, was announced. With a view to maintaining the availability of funds so as to promote reconstruction after the disastrous earthquake that hit the area earlier that year, a resolution scheme to maintain the bank's functions was formulated. Namely, the business operations of Hyogo Bank were transferred to the newly established Midori Bank, capitalized by private institutions. As part of the resolution scheme, the Deposit Insurance Corporation granted ¥473 billion to cover the loss incurred by the Hyogo Bank, and the Bank of Japan provided bridging loans in the minimum amount necessary to repay deposits until the Deposit Insurance Corporation could execute financial assistance. Furthermore, the central bank extended a subordinated loan of ¥110 billion to the Midori Bank for the purpose of credit enhancement.

Categorization of Bank of Japan Funds

It is possible to break down the central bank funds used to contain the banking crisis into five conceptual categories.

Category I: Loans to financial institutions that are solvent but temporarily illiquid. This kind of loan is a typical example of the central bank's function as the lender of last resort. Naturally, the funds are to be repaid.

Category II: Loans to financial institutions that are insolvent but need bridging finance until a resolution scheme can be implemented. Covering a loss is the natural role of the Deposit Insurance Corporation or the government, but, as the disbursement of Deposit Insurance Corporation or government funds lacks procedural promptness, there are instances when the central bank needs to provide
liquidity support. Such support supposes repayment within the framework of an appropriate resolution package; bridging loans of this type were implemented by the Bank of Japan in the case of the Cosmo and Kizu credit cooperatives and also the Hyogo Bank. When a resolution scheme has already been implemented (the Cosmo Credit Cooperative and the Hyogo Bank), central bank loans have been fully repaid. For the same reason, Bank of Japan bridging loans have been extended to the Hanwa Bank, whose business operations were suspended in November 1996.

Category III: Financing of an undercapitalized financial institution that is likely to regain full solvency with government help. This kind of financial assistance may take the form of risk capital, such as equity capital or subordinated loans. The central bank’s provision of a subordinated loan to the newly established Midori Bank, which took over the business operations of the Hyogo Bank, may be classified under this category. It is assumed that support measures will allow the institution to attain solvency by its own earning ability.

Category IV: Financial measures to build an institutional safety net framework, like Category III, sometimes in the form of risk capital. Both the equity provided to the Deposit Insurance Corporation by the Bank of Japan and its contribution to the necessary funds for the Deposit Insurance Corporation’s equity holding in the Housing Loan Administration Corporation can be categorized under Category IV.

Category V: Funds that cannot be classified under any of the previous four types. This includes grants or loans extended for the purpose of supporting income. This kind of funding is not an inherent function of the central bank. Although the Bank of Japan extended such loans to facilitate the resolution of the Cosmo Credit Cooperative, it was conceived as an emergency measure taken at a time when a comprehensive framework for the resolution of failed institutions was not in place.

Conceivably, the unlimited provision of central bank funds can erode the discipline of financial institutions and encourage irresponsible management. In order to avoid such moral hazard, the Bank of Japan requires four conditions to be satisfied whenever its funds are extended to a failed financial institution:

• there is a strong likelihood that systemic risk will materialize;
• there is no alternative measure, and such assistance from the central bank is absolutely indispensable for the successful resolution of the failure;
• all responsible parties are required to take full responsibility to avoid moral hazard; and
• the financial soundness of the central bank will not be impaired.
Limits of the Old Safety Net

The previous legal and institutional framework was often insufficient to cope with the failures of financial institutions. For example, the authorities could not initiate bankruptcy proceedings. As such, it was difficult for them to embark on a timely resolution scheme.

The Deposit Insurance Corporation used to have only two options for handling a troubled financial institution: either proceed with a payoff (up to ¥10 million per depositor was insured) or provide financial assistance by which all depositors were protected. In addition, legal provisions stating that the maximum Deposit Insurance Corporation financial assistance in each case was limited to an amount equivalent to the payoff cost greatly restricted the resolution schemes.1 Where systemic risk is a constant concern and where the full protection of depositors is presumed in order to prevent systemic risk, financial assistance from the Deposit Insurance Corporation often turns out to be insufficient.2 In these cases, for the purpose of maintaining financial system stability, the authorities used to request additional financial contributions from private financial institutions. However, such requests were not sustainable and soon reached their limit. A more systematic framework thus became an urgent necessity.

Housing loan companies (jusen), which faced serious difficulties because of a huge amount of nonperforming loans, were an extremely serious problem. The huge losses incurred by jusen and the large number of related parties involved complicated the problem, and resolution was put off. It was thought that since jusen are not depository institutions, their failure had less potential to directly result in financial unrest. However, because many depository institutions held credit vis-à-vis jusen, and because many saw the jusen problem as the heart of Japan’s nonperforming loan problem, some resolution became imperative.

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1Payoff cost is defined as the estimated amount necessary to meet insurance claims if an insured financial institution suspends the repayment of deposits; it is equivalent to uncollectible amount following liquidation procedures + operating cost of meeting insurance claims.

2From July to December 1996, the Financial System Stabilization Committee of the Financial System Research Council (an advisory body to the Minister of Finance) discussed how to cope with the nonperforming loan problem of financial institutions. The committee held that, to avoid systemic risk, all depositors should be protected for a certain period (about five years).
New Framework for the Disposal of Failed Financial Institutions

To eliminate the previously mentioned legal and institutional restrictions, the so-called six financial reform laws were enacted in June 1996. They provided a new framework for disposing of failed depository institutions in a smoother and more systematic way; they also implemented comprehensive measures to resolve the jusen problem using funds from private financial institutions and the government (Appendix II).

Improving the Disposal Framework

According to the Law to Provide Special Procedures for Reorganizing Financial Institutions, an application to the court to initiate reorganization procedures (hitherto restricted to the institution, stockholders, and creditors), can now be made by the regulatory and supervisory authorities (the Ministry of Finance, the relevant local government, and so forth) if a bankruptcy is likely. Likewise, the regulatory and supervisory authorities can now initiate bankruptcy procedures.

As for reorganizations, the Deposit Insurance Corporation now has the power to exercise creditor rights on behalf of depositors. In this way, it can act for the collective interest of depositors, rather than leave individual depositors to take legal action on their own. With the Deposit Insurance Corporation’s new function, it is expected that failure resolution will be quickened.

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3The six financial reform laws: (1) Law Concerning Special Packages for Promoting the Disposal and Debts of Specified Jusen; (2) Law to Amend the Deposit Insurance Law; (3) Law to Amend the Agricultural and Fishery Cooperative Savings Insurance Law; (4) Law to Provide Special Procedures for Reorganizing Financial Institutions; (5) Law to Implement Measures for Ensuring the Sound Management of Financial Institutions; and (6) Law Concerning Special Packages for Suspending Prescription of Claims Owned by Specified Jusen.

4Regulatory and supervisory authorities for each type of institution are as follows: the Ministry of Finance for banks, long-term credit banks, and shinkin banks; the Ministry of Finance and the Ministry of Labor for Intercredit Associations; local governments (delegated by the Ministry of Finance) for credit cooperatives; and local governments (delegated by the Ministry of Finance and the Ministry of Agriculture, Forestry, and Fishery) for Agricultural and Fishery cooperatives.
Improving the Deposit Insurance System

The amendment to the deposit insurance law involves permanent and temporary measures (Figure 2). One permanent measure is that the Deposit Insurance Corporation has been empowered to purchase deposits. As a consequence, it can, even if the amount exceeds the maximum insured threshold (¥10 million per depositor), purchase deposits (including accrued interest but excluding deposits pledged as security) in an amount equivalent to the estimated proceeds (the estimated recovery value of the deposit under bankruptcy procedures). This implies that depositors can collect their claims from a failed institution more quickly. From a different perspective, this suggests greater flexibility in selecting the payoff method when dealing with a failed financial institution.

As for temporary measures, for the next five years the Deposit Insurance Corporation is authorized to give financial assistance, regardless of payoff limit, up to the amount necessary to cover the loss incurred by a failed institution. A new account called the Special Account has been established at the Deposit Insurance Corporation through which amounts exceeding payoff cost will be financed. As a result, the financial authorities will not have to request additional contributions from individual institutions, as used to be the case. The Special Account is administered via two separate subaccounts, one for credit cooperatives (Special Account for Credit Cooperatives) and the other for banks and shinkin banks (Special Account for Ordinary Financial Institutions). Each subaccount is funded by a special insurance premium collected from the respective segments of the financial industry; with the Special Account for Credit Cooperatives, government funds can be injected if there is any deficit following its termination in five years.

To enhance the financial strength of the Deposit Insurance Corporation, the insurance premium has been raised to seven times the former rate (four times for the “ordinary” account and three times for the “special” account, which will be collected only for the next five years), from 0.012 percent to 0.084 percent of deposits insured. Furthermore, given the usual time lag between the disbursement of financial assistance and the inflow of premium income, Bank of Japan lending to the Deposit Insurance Corporation is available to cover the

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5The Special Account will be preserved until FY2001 according to the deposit insurance law.

6Premium income in the next five years is expected to amount to ¥2.5 trillion. The insurance premium for the Special Account will be reviewed by March 1999 at latest.
Figure 2. Outline of Deposit Insurance Reform

Failed credit cooperatives
Assumption of business
Transfer of nonperforming Assets

The Resolution and Collection Bank

Failed financial institutions
Assumption of business
Transfer of nonperforming Assets

Supporting financial institutions

Bank of Japan

Capital subscription
Special financial assistance (exceeding payoff-cost limit)
Financial assistance (within payoff-cost limit)

Deposit Insurance Corporation

Special Accounts
Special Account for Credit Cooperatives
Special Account for Ordinary Financial Institutions

Ordinary Accounts (conventional reserves)

Credit cooperatives
Ordinary banks, shinkin banks, labor credit associations
Credit cooperatives

Special premium (0.036% of deposit base)

Special deposit purchase

Insured deposit payoff (Up to ¥10 million)
Deposit purchase

Loans

Government

Fiscal measures

Note: Shading indicates special provisional measures and functions of the Deposit Insurance Corporation (DIC).

1Loans extended to the Ordinary Accounts by the Bank of Japan will be repaid by borrowing from DIC member banks and parent organizations of credit cooperatives.

2Loan guarantees for the implementation of special operations relating to credit cooperatives.

3Payment of an amount equivalent to estimated proceeds to be recovered under bankruptcy proceedings.

4Full refund on insured deposits exceeding ¥10 million accrued interest.
gap as bridging finance. The Deposit Insurance Corporation’s borrowing limit was also increased.\(^7\)

After enactment of the six financial reform laws, the *Tokyo Kyodou Bank* was reorganized as the Resolution and Collection Bank in September 1996. The new bank is intended to take over the business operations of failed credit cooperatives more systematically and to engage in the resolution and collection of nonperforming loans.

**Jusen Resolution**

The key feature of the disposal scheme, based on the Law Concerning Special Packages for Promoting the Disposal of Claims and Debts of Specified *jusen*, was the establishment of a new company to take over *jusen* assets and collect assumed *jusen*-related claims, in close cooperation with public and private parties (Figure 3 and Appendix III). The new company, the Housing Loan Administration Corporation (HLAC), was established in July 1996 by the Deposit Insurance Corporation and seven *jusen*, after transferring claims, were dissolved.

Half of HLAC's capital of ¥200 billion was provided by the Financial Stabilization Contribution Fund, established by the Deposit Insurance Corporation with contributions from private financial institutions (totaling ¥1,007 billion), and half by the Bank of Japan with the funds being channeled through the Deposit Insurance Corporation. Funds to purchase *jusen* claims were financed by low interest rate loans from lender financial institutions including *jusen* founding financial institutions. Losses already recognized upon the transfer of claims to the HLAC will be covered by a government contribution of ¥680 billion through the Emergency Financial Stabilization Fund, as well as the renunciation of loans and grants of lender financial institutions. Also, if the amounts collected prove to be less than the acquisition prices and cause a further loss to the HLAC—the so-called secondary loss—then the operating profit of the Financial Stabilization Contribution Fund and government funds would evenly cover the loss. When the HLAC terminates its operations, the outstanding amount of the Financial Stabilization Contribution Fund will be repaid to the contributors on a pro rata basis.

Since vigorous objections arose among taxpayers with respect to using government funds to resolve the *jusen* problem, another fund

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\(^7\)The borrowing limit with respect to the Ordinary Account from the Bank of Japan has been raised from ¥500 billion to ¥1 trillion. The Special Account was also authorized to borrow up to ¥1 trillion from the Bank of Japan and private financial institutions.
Figure 3. Outline of Jusen Resolution Scheme

1Borrowing from financial institutions to repay loans is possible.
was proposed to reduce the potential government burden. A New Financial Stabilization Fund was established in September 1996. This fund is intended to generate investment returns on the funds provided by private financial institutions (approximately ¥800 billion) and the Bank of Japan (¥100 billion). The operating profit derived from the contributions of private financial institutions will be paid to the government through the Deposit Insurance Corporation and will indirectly reduce the government burden with respect to the disposal of justen. Funds provided by the central bank will be strictly separated from the funds provided by the private sector and used to facilitate resolutions, such as in the form of subordinated loans to strengthen the capital base of an institution. The fund’s operations will terminate after 15 years, and the final balance of contributions from private institutions will be repaid to contributors on a pro rata basis. As for the contribution from the central bank, after deducting operating costs, the remaining operating profits as well as the principal will be repaid upon termination of operations.

Ensuring the Transparency of Supervision

In addition to managing actual failure, a preventive measure was also introduced, the Law to Implement Measures for Ensuring the Sound Management of Financial Institutions, designed to make financial supervision more transparent. This law introduces a supervisory system similar to the prompt corrective action (PCA) adopted by the U.S. financial supervisory authorities. Under the PCA system, supervisory authorities impose corrective measures on financial institutions according to the capital ratio (Table 2). With this system, problems in financial institutions are addressed at an early stage, and, should a failure become inevitable, the cost of resolution is reduced. Moreover, the PCA contributes to transparency since the corrective measures, as well as the norms that govern the application of such measures, are known to the public as general rules. The lower the capital adequacy ratio, the stricter is the corrective action. This new system, after drafting of a ministerial ordinance that defines capital and corrective action, will be effective from April 1998.\footnote{The basic framework of prompt corrective action was published in December 1996. As for the capital adequacy ratio, either the international standard or the national standard will be applied to financial institutions; the international standard will be applied to those with establishments overseas. Financial institutions will be classified according to their capital adequacy ratio and subject to the corrective actions stipulated for each category (Table 2).}
## Table 2. Outline of Prompt Corrective Action (PCA)

<table>
<thead>
<tr>
<th>Capital Category</th>
<th>Capital Adequacy Ratio</th>
<th>Corrective Action</th>
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<tr>
<td></td>
<td>Current International Standards</td>
<td>Modified National Standards</td>
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<tr>
<td>1</td>
<td>Less than 8%</td>
<td>Less than 4%</td>
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<tr>
<td>2</td>
<td>Less than 4%</td>
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<tr>
<td>3</td>
<td>Less than 0%</td>
<td>Less than 0%</td>
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</table>

Source: PCA Study Group (a group privately organized by the Director General of the Banking Bureau, Ministry of Finance).

Note: All institutions may be subject to business suspension based on §26.1 and §27 of the Banking Law for such reasons as a liquidity shortage. Institutions classified under category 2 or 3 when the PCA system first comes into effect may be treated as if they were in a higher category provided they have already submitted an acceptable business improvement plan that can be achieved within a relatively short period of time. The PCA system is to come into effect in April 1998.
Outcome of Financial Reform Laws

After enactment of the six financial reform laws, the supervisory authorities and the financial industry worked together to effect the envisaged disposal framework; it became operational in fall 1996. Under the new framework, it is possible to dispose of failed financial institutions in a more prompt and more systematic manner, and failure resolutions for five credit cooperatives and one bank have already been announced under the new framework. The disposal scheme for the Hanwa Bank, a tier 2 regional bank located in the Kansai region, highlights some of the new functions attributed to the Deposit Insurance Corporation following the recent changes. Namely, a new bank will be established to handle the dissolution and liquidation of Hanwa Bank, including the repayment of deposits. In so doing, the deposit insurance system will fully protect depositors: the Deposit Insurance Corporation not only will cover the entire loss incurred by the Hanwa Bank but will purchase all its assets, including loans, and place the administration and collection of assets with the Resolution and Collection Bank. The newly established bank will be capitalized by the New Financial Stabilization Fund at ¥10 billion.

Moreover, with the solution of the jusen problem, a significant portion of nonperforming loans held by financial institutions has been disposed of. In the meantime, progress is also being made at individual financial institutions. Taking advantage of record-high operating profits for FY1995, major financial institutions effected significant write-offs and provisions for problem loans. At least in accounting terms, major banks are likely to near completion of the disposal of problem loans in a year or two.

These efforts are reflected in the size of overall nonperforming loans. According to the Ministry of Finance, aggregate gross nonperforming loans held by Japanese depository institutions stood at ¥29.2 trillion at the end of September 1996, down ¥8.9 trillion in 12 months.9 On a net basis, after deducting provisions and collateral, aggregate nonperforming loans totaled ¥7.3 trillion at the end of September 1996, a drop of ¥11.3 trillion in one year, partly due to the provisions made in relation to the resolution of jusen (Table 3).

Individual financial institutions have also disclosed the amount of nonperforming loans at the end of September 1996.10 According to

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9Gross nonperforming loans include those extended to borrowers in legal bankruptcy, overdue loans, and restructured loans.
data and information collected by the Bank of Japan, nonperforming loans outstanding are on a downward trend in spite of newly generated nonperforming loans occasioned by the continuing slide of land prices, and nonperforming loans outstanding will continue a steady decline, on both a gross and net basis, as financial institutions continue to effect charge-offs and provisions.

Despite the declining trend, however, gross nonperforming loans are still equivalent to almost 6 percent of Japan’s nominal GDP. Furthermore, nonperforming loans are not evenly dispersed among financial institutions. In particular, some small and medium-sized firms are burdened with large nonperforming loans relative to their financial strength. Therefore, the Bank of Japan holds the view that despite progress on reducing nonperforming assets, systemic risk is still a remote possibility.

Lessons Learned

Although the nonperforming loan problem has yet to be fully resolved, a framework is now in place by which the negative heritage of the past can be overcome. It seems an appropriate time, therefore, to analyze what has been learned from this bitter experience.

The first lesson relates to macroeconomic policies—specifically, monetary policy. Appropriate macroeconomic policies are essential to prevent economic bubbles, like the one that caused Japan’s current problem. In hindsight, signs of the bubble can be traced back to the mid-1980s when the prices of stock and land began to soar, and the money supply began to rapidly grow. However, since the general price level was extremely stable and the prevailing policy concern was containing the rising value of the yen, the decision to take restrictive
monetary policy was delayed. The Bank of Japan thus learned that a central bank must give due attention not only to general price level but also to the level of asset prices, which might signal a future problem. The central bank also learned that policy decisions should be based on an overall judgment of economic conditions; the exchange rate, although a factor to be considered, should not be an exclusive consideration but only one of many.

The second lesson is that risk management on the part of financial institutions was not adequate. Looking back on the behavior of Japanese financial institutions during the bubble period, it seems to have been driven by a strong urge to secure new sources of income. In the midst of the deregulation and globalization of financial markets, the banks were convinced that they would face increased competition and that a struggle for survival was about to begin. This explains the explosive growth of real estate-related loans and the parallel rise in land prices. Obviously, this concentration of loans to a specific sector was unwise from the viewpoint of risk management. Indeed, at the time, the major players in global financial and capital markets were beginning to realize the need for improved risk management, inspired by the innovation in risk management techniques and the emergence of new and complex financial instruments. What was really required of Japanese financial institutions in the increasingly competitive environment was creativity in product development and strict management. Instead, they were still obsessed with volume expansion, without sufficient regard to risk management. After all, Japanese financial institutions failed to establish the principle of self-responsibility at a most critical time.

This lesson suggests that financial institutions should construct more rigorous and sophisticated risk management systems. But it does not mean that they should avoid risks. It goes without saying that the income source of financial activities depends entirely on taking risks. The essence of risk management resides in striking the right balance between risk and return and incorporating it into actual management strategies. Risk management, especially today, is closely related to improved financial technology. One example is the progress in risk measurement technology, with its wide use of such concepts as value at risk (VAR) in the management of market risk or with the current efforts to quantify credit risk.

Progress in risk measurement technology alone is not the goal of risk management, however. Such technology must be used by financial institutions as a tool that contributes to making sound management decisions and to checking excessive or unreasonable risk taking. As such, corporate governance, too, should be enhanced to influence
the management of financial institutions. The most important factor with respect to corporate governance is the control that shareholders exercise through the stock markets. Giving external auditors an enlarged role would also be consistent with the concept of corporate governance. With this understanding, further spurred by various episodes of inadequate risk management, individual financial institutions are placing greater stress on internal control, establishing risk management guidelines, and reorganizing corporate structures to enhance risk management.

Third, market checks did not function as they should have. Market checks refer to the mechanisms that signal how financial institutions are performing and that can detect, at an early stage, excessive risk taking; such excess should be reflected in the stock prices or funding costs of the institution concerned. Had this mechanism functioned properly, the management of those financial institutions that were imprudently concentrating on real estate lending would have been compelled (by stockholders or the counterparties of financial transactions) to lend more prudently. Unfortunately, this did not happen, and not a little of the blame is attributable to the fact that actual asset quality and overall institutional performance were obscured by incomplete accounting practices and information disclosure.

This suggests that for market mechanisms to function fully, a sound financial infrastructure—such as appropriate accounting rules and market practices that increase market transparency—is indispensable. In this regard, some progress has been achieved. Accounting principles were amended in June 1996. As a result, mark-to-market accounting will be applied to the trading accounts of banks and securities companies, and major financial institutions are preparing to put the new rules into practice in FY 1997. With respect to market transparency, public disclosure has been enhanced by the practice of disclosing, on a voluntary basis, a wider range of information pertaining to nonperforming loans. Moreover, major financial institutions have started to disclose the market risk profile of their derivative transactions using VAR. Some have gone further, demonstrating their risk management performance by a method called "back-testing"—by this method, VAR is compared with actual portfolio losses to prove a bank's ability to manage market risk. Indeed, an increasing number of banks are exhibiting innovative ways to provide information in plain language, using creative charts and tables. Furthermore, to reduce

11For more details of the disclosure practices of financial institutions with regard to risk, see Bank of Japan, "Risk Disclosures by Financial Institutions," Quarterly Bulletin (February 1997).
the risk to which the financial system as a whole is exposed, the payment and settlement system is being improved. As a means to reduce settlement risk, real time gross settlement is being studied and consultations with the private sector have begun.

Fourth, bank supervisory methods must be constantly reviewed. Previously, supervisory methods did not fully incorporate basic principles of "self-responsibility" or "market discipline," which should govern the behavior of financial institutions in an environment where the deregulation and globalization of financial activities is happening. Moreover, in retrospect, the authorities preferred, at least in the early stages, to deal with nonperforming loans in the traditional manner. Examples include modest disclosure practices, a concerted pace of write-offs and provisioning, and relatively mild restructuring. These measures, understandably, might have reflected the desire to avoid severe shocks to the nation’s economic activity. It cannot be denied, however, that they had the side-effect of prolonging financial system fragility.

In addition, the timing of failure resolutions tended to be delayed, at least in the early stages, partly owing to the lack of a comprehensive safety net, which resulted in larger resolution costs. Thus, to ensure financial system stability and minimize resolution costs, a failed institution must be dealt with promptly.

And fifth, during the efforts to resolve the failures of financial institutions, the respective roles of the central bank, the deposit insurance system, and the government came under scrutiny. Needless to say, financial system stability is a key mission of a central bank, as a lender of last resort. From a central bank’s point of view, it is not necessarily an immediate concern whether a financial institution survives or not, since its basic purpose is to ensure the stability of the financial system as a whole. That is why in many countries the central bank’s role as lender of last resort is normally limited to the temporary provision of liquidity to a solvent institution. Nevertheless, when a problem at an individual financial institution threatens the stability of the financial system as a whole, the central bank may be obliged to act and provide funds to resolve a failure.

Referring back to the five ways in which the central bank can provide financial assistance, the use of central bank money is justifiable in category I cases—satisfying the temporary liquidity requirements of solvent institutions. Category V cases, on the other hand, are obviously beyond the responsibility of the central bank and should be covered by the deposit insurance system or, as occasion demands, by government expenditures. Meanwhile, for cases coming under Categories II–IV (namely, a bridging loan prior to the disposal of an
institution, credit enhancement to help restore full solvency, and a contribution to the institutional framework of the resolution scheme) there is ample room to argue whether central bank money should be mobilized or whether other agencies should take charge. The question is further complicated by the fact that it cannot be easily known whether an institution is solvent when the problem is developing. Some argue that central bank money could be used for the purpose of financial system stability on condition that the money is sure to be repaid by the deposit insurance system or the government. At any rate, there can be different views on the extent to which the central bank should be involved in the resolution of failed institutions, and the answer probably varies with the size of the threat to the financial system.

**Challenges to Constructing a New Financial System**

The lessons learned during Japan’s recent financial turmoil should be fully incorporated into the construction of a new, efficient, and stable financial system. At the same time, an understanding of the changing environment surrounding the financial services industry, in Japan and overseas, is especially important. The basic thrusts of the changes are "deregulation" and "informatization." Needless to say, deregulation is a trend common to financial markets around the world. Meanwhile, the financial services industry is also in the midst of major technological innovations, or informatization. Ongoing technological innovation is unique in the sense that it has the potential to change the nature of the financial services industry directly; past innovation affected the industry in a more indirect way, for example, by generating greater borrowing demand because of the technological innovation in other industries. The huge tide of technological innovation is changing the traditional image of financial activities as represented by deposit taking and lending.

As deregulation and informatization progress, the international flow of funds is increasing rapidly. Foreign exchange and government bond markets now have global participants. Derivative transactions, one product of technological innovation, have seen remarkable expansion since the mid-1980s. On a worldwide notional principal basis, the aggregate amount of over-the-counter transactions now stands at around $48 trillion, two-and-a-half times as large as the aggregate nominal GDP of the G-7 countries. A significant portion of these are

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cross-border transactions. Fueling the growth of the international flow of funds are the savings generated by the aging populations of developed countries. In Japan, too, the outstanding amount of individual savings is as high as ¥1,200 trillion. Such funds are mobile, moving about the financial markets, both at home and abroad, in search of more profitable investment opportunities.

The huge international flow of funds is integrating financial markets worldwide, a process being accelerated by deregulation and informatization. In fact, the world is probably witnessing the emergence of an integrated global financial market unprecedented in the history of finance and economics.

Financial globalization, while enlarging the income opportunities of the financial services industry as a whole, presents individual financial institutions with the challenge of how to manage the various risks they encounter in pursuing such opportunities. Moreover, the supervisory authorities have the difficult task of maintaining financial system stability at a time when financial globalization is expected to develop at a speed they themselves cannot control.

When discussing the challenges facing supervisory authorities, it should be clearly recognized that an "open financial system" is emerging as a result of financial globalization. An open system means that individual market participants conduct financial transactions based on the principle of self-responsibility, and the market as a whole is governed by the universal principle of market discipline.

Such a financial system has a dynamic aspect, since competition among individual market participants generates endless waves of innovation. In an environment where financial transactions and market technology are constantly evolving, supervisors balance financial system stability with the need to allow financial institutions to push forward the frontiers of banking through innovation. Therefore, supervisory methods should be oriented according to two basic policies: first, greater emphasis should be placed on the assessment of the risk management; second, the incentive that inherently works on financial institutions to improve risk management should be encouraged to the fullest.

Shifting to this type of supervisory approach is a common trend in large industrialized countries. In fact, under BIS capital requirements, banks can choose to calculate their own levels of necessary capital covering market risk, provided their respective supervisory authorities are satisfied that certain conditions are met. Over time, the search for new supervisory methods that exhibit even greater consistency with the incentives of private financial institutions, and thus with market mechanisms, will continue—although one might wonder if this
could still be called "supervision." This search is sometimes expressed by central bank officials as moving "from a command and control approach to an incentive-compatible approach." 13

As a prerequisite for this new supervisory approach, the central bank itself must constantly keep a sharp eye on the financial markets, equip itself with the new financial technologies, and incorporate them into improved supervisory methods to ensure financial system stability. In other words, "central banks must begin designing the next generation of supervisory procedures even while introducing the latest modification, much as banks are forced to do for their own products." 14 This is certainly not an easy task. However, the central bank, as a participant in the market, is best positioned to assume this important role.

In an open financial system, individual financial institutions could fail as a natural consequence of competition. It is the task of the safety net to prevent such failures from threatening the entire financial system. However, since the business of finance is expected to change dramatically, problems may arise with regard to the way in which the safety net should be constructed. One such problem is coverage. If the scope of financial business is enlarged, the question arises, to what extent should the safety net cover financial activities? Specifically, when an institution is principally engaged in a business that poses no direct systemic risk, the question would be whether it is appropriate to apply the safety net to that institution, thus benefiting its whole business.

Furthermore, the trade-off between moral hazard, which is inherent in the safety net, and the regulatory or supervisory costs borne by financial institutions is another issue. That is, if rigorous supervision or regulation is imposed on financial institutions to contain moral hazard, nonfinancial participants who are free from supervisory or regulatory costs would offer, at a lower price, services or products having the same economic effects. This could be termed "de-banking," a process whereby banks and other financial institutions lose their raison d'etre because of a relative disadvantage in regulatory and super-

13 Along this line, a pilot study of a "precommitment approach" is being organized by the New York Clearing House Association in cooperation with private financial institutions. Under this approach, banks are required to choose their own capital allocations for trading risk consistent with their own risk management capabilities and with regulatory objectives.

14 Quotation from a speech delivered by Alan Greenspan, chairman of the Board of Governors of the Federal Reserve System, to the Federation of Bankers Associations of Japan on November 18, 1996, in Tokyo.
visory costs. Thus, a right balance between moral hazard and de-bank-
ing is a very important concern in matters relating to the safety net and supervision and regulation.

Conclusion

The immediate task facing Japan is the reconstruction of an efficient and stable financial system that will underpin the economy in the twenty-first century. Initial steps have been taken, with the underlying principle of utilizing market mechanisms to the fullest extent. Based on this basic principle, Prime Minister Hashimoto has set forth an initiative to revive the Tokyo markets, so that Tokyo regains its position as a global financial center by the year 2001. The plan envisages fundamental reform of Japan's financial and capital markets and encompasses new entries into the banking, securities, and insurance areas, as well as wider business scope for banks and securities companies. Some proposals are already taking shape, including an amendment to the Foreign Exchange and Foreign Trade Control Law. One of the key features of the bill is the abolition of authorized foreign exchange banks, so that nonbanks can participate in foreign exchange business. At the same time, discussions are under way to effect major reform of the Ministry of Finance, as well as amendments to the Bank of Japan Law for the first time in almost fifty years. With these reforms, it is expected that the independence of monetary policy will be further enhanced and that the roles that the Bank of Japan fills for the purpose of financial system stability, such as bank examination and lender of last resort, will be explicitly expressed in the provisions of the law. All these moves can also be seen as part of Japan's transition to an open financial system.

After the bitter experience of the bubble economy, Japan today acutely recognizes that financial system stability is crucial to the stable and sustained growth of the nation's economy. The experience should be turned to good account in constructing a sound and robust financial system governed by the principles of market discipline and self-responsibility. Moreover, the Bank of Japan is aware that the stability of Japan's financial system is important not only for the Japanese economy but for the global economy as well. The Bank of Japan is therefore totally committed to the smooth transformation of the Japanese financial system, both for the country's individual future and for the collective future of the global marketplace.
### Appendix I. Outline of Disposal Schemes for Failed Financial Institutions

*(In billions of yen, unless otherwise noted)*

<table>
<thead>
<tr>
<th>Failed Financial Institution</th>
<th>Date of Failure</th>
<th>Deposits</th>
<th>Outline of Disposal Scheme</th>
<th>Provision of the Bank of Japan Funds</th>
<th>Financial Assistance by the Deposit Insurance Corporation (DIC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tokyo Kyowa Credit Cooperative/Anzen Credit Cooperative (both based in Tokyo)</td>
<td>Dec. 9, 1994 (resolution scheme announced)</td>
<td>200</td>
<td>1. The Bank of Japan, jointly with private financial institutions, established a new ordinary bank (Tokyo Kyodou Bank) to assume the business of the two institutions.</td>
<td>¥20 billion in capital subscription to Tokyo Kyodou Bank.</td>
<td>¥40 billion in financial assistance to Tokyo Kyodou Bank.</td>
</tr>
<tr>
<td>(Tokyo Kyowa)</td>
<td>(101)</td>
<td></td>
<td>2. In implementing the above business transfer, private financial institutions as well as the DIC provided necessary financial assistance. (Lacking assembly approval, the Tokyo metropolitan government has not yet disbursed its contribution).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Anzen)</td>
<td>(98)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yuai Credit Cooperative (based in Kanagawa)</td>
<td>Feb. 3, 1995 (resolution scheme announced)</td>
<td>46</td>
<td>1. The nonperforming assets of Yuai Credit Cooperative were transferred to the Kanagawa Society of Credit Cooperatives, and lending to industrial enterprises was undertaken by Yokohama Bank.</td>
<td>¥2.8 billion in financial assistance to Kanagawa-ken labor credit association.</td>
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<td></td>
<td></td>
<td></td>
<td>2. The rest of the business was transferred to Kanagawa-ken labor credit association.</td>
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<td></td>
<td></td>
<td></td>
<td>3. In implementing the above transfer, cooperation from related financial institutions and budgetary support from the Kanagawa prefectural government was provided.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank</td>
<td>Date</td>
<td>Amount</td>
<td>Details</td>
<td></td>
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<td>-------------------------</td>
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</tbody>
</table>
| Cosmo Credit            | July 31, 1995 | 432    | 1. Tokyo Kyodou Bank assumed all business of Cosmo Credit Cooperative.  
2. In implementing the above transfer, the metropolitan government of Tokyo, the Tokyo Society of Credit Cooperatives, the Bank of Japan, private financial institutions including credit cooperatives, as well as the DIC provided necessary financial assistance. |
| Cobet Cooperation (based in Tokyo) |             |        | Provided ¥125 billion in financial assistance to Tokyo Kyodou Bank. |
| Kizu Credit             | Aug. 30, 1995 | 1,191  | 1. All business of Kizu Credit Cooperative is to be transferred to the Resolution and Collection Bank (RCB) established in September 1996, a restructured version of the Tokyo Kyodou Bank.  
2. In implementing the above transfer, maximum cooperation from related financial institutions will be elicited and budgetary support from the Osaka prefectural government is expected. |
|                        |               |        | Providing necessary liquidity to Kizu Credit Cooperative via the National Federation of Credit Cooperatives. |
|                        |               |        | Not finalized. |
| Hyogo Bank              | Aug. 30, 1995 | 2,534  | 1. Hyogo Bank was liquidated in March 1996.  
2. A new bank (Midori Bank) was established to assume all business of Hyogo Bank and operates as a new local financial institution. |
<p>|                        |               |        | Provided ¥473 billion in financial assistance to Midori Bank. |
|                        |               |        | ¥473 billion in financial assistance to Midori Bank. |</p>
<table>
<thead>
<tr>
<th>Failed Financial Institution</th>
<th>Date of Failure</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Fukui-ken Daiichi Credit Cooperative (based in Fukui)</td>
<td>Nov. 30, 1995 (resolution scheme announced)</td>
<td>4</td>
<td>1. The nonperforming assets were transferred to a newly established debt-collecting institution. 2. The rest of the business was transferred to Fukui Bank with support from Fukui prefectural government and the National Federation of Credit Cooperatives.</td>
<td>—</td>
<td>¥620 million in financial assistance to Fukui Bank.</td>
</tr>
<tr>
<td>Osaka Credit Cooperative (based in Osaka)</td>
<td>Dec. 7, 1995 (resolution scheme announced)</td>
<td>333</td>
<td>1. The nonperforming assets were transferred to the RCB. 2. The rest of the business was transferred to Tokai Bank.</td>
<td>—</td>
<td>Consignment of the purchase of the nonperforming assets (¥82.9 billion) of Osaka Credit Cooperative to the RCB. ¥169.7 billion in financial assistance to Tokai Bank.</td>
</tr>
<tr>
<td>Taiheiyo Bank (based in Tokyo)</td>
<td>March 29, 1996 (resolution scheme announced)</td>
<td>636</td>
<td>1. The irrecoverable assets were written off with support from four supporting banks. 2. The whole business was transferred to Wakashio Bank, a new bank established as a subsidiary of Sakura Bank.</td>
<td>—</td>
<td>¥117 billion in financial assistance to Wakashio Bank.</td>
</tr>
</tbody>
</table>
1. The nonperforming assets of the two credit cooperatives were transferred to the RCB.
2. The rest of the business was transferred to Danyo Credit Cooperative with support from Midori Bank.

All business to be transferred to the RCB.

1. A new bank, which will assume all business of Hanwa Bank, will be established for the dissolution and liquidation of the latter, including the repayment of deposits.
2. All assets are to be purchased by the DIC. The DIC will place the administration and collection of assets with the RCB.

Providing necessary liquidity to Hanwa Bank.

Consignment of the purchase of the nonperforming assets (¥7.1 billion) of the two credit cooperatives to the RCB. ¥23.7 billion in financial assistance to Danyo Credit Cooperative.

Not finalized.
Appendix II

Outline of the Financial Reform Laws Enacted by the Diet

Law to Amend the Deposit Insurance Law

- Introduces a deposit purchase scheme under which the Deposit Insurance Corporation, outside of court procedures, could provide depositors with a cash payment in an amount equivalent to what they would receive under bankruptcy procedures.
- Authorizes the corporation to make insurance payments by placing deposits on behalf of depositors at financial institutions designated by the corporation.
- As a temporary measure for the next five years, establishes a special fund in the corporation to extend financial assistance beyond the payoff cost limit. (The special fund will be administered in two separate accounts, one for banks and shinkin banks [Special Account for Ordinary Financial Institutions] and the other for credit cooperatives [Special Account for Credit Cooperatives].)
- Introduces a special insurance premium for the special fund.
- Assigns capital contribution by the corporation to the Resolution and Collection Bank as well as other forms of financial assistance. (The Resolution and Collection Bank has been established by transforming the Tokyo Kyodou Bank into an institution specializing in resolving failed credit cooperatives.)
- Offers government guarantee with respect to the corporation’s borrowing from the Bank of Japan and/or private financial institutions through the Special Account for Credit Cooperatives.
- Executes the guarantee if the Special Account for Credit Cooperatives is showing a net loss (after absorbing any surplus in the Special Account for Ordinary Financial Institutions) after five years of operation.

Law for Reorganizing Financial Institutions

- Confers upon the supervisory authorities the power to petition the initiation of corporate reorganization or bankruptcy procedures with respect to financial institutions.
- Reforms the Corporate Reorganization Law so that it can be applied to resolution of failed cooperative-type financial institutions.
- Empowers the Deposit Insurance Corporation to act as the agent of depositors whose rights will be represented and exercised by the corporation in court procedures.

**Law for Ensuring the Sound Management of Financial Institutions**

- Introduces prompt corrective action based on objective criteria such as capital adequacy ratios.
- Applies mark-to-market accounting principles to financial instruments in trading accounts such as derivative products.
- Prohibits full-time board members of credit cooperatives from holding concurrent positions in other companies.
- Introduces external auditing and appointment of noncooperative members as internal auditors for cooperative-type financial institutions.
- Strengthens the powers of the internal auditors of cooperative-type financial institutions.
- Improves procedures to transfer business from banks to cooperative-type financial institutions as well as between cooperative-type financial institutions.

**Appendix III**

**Outline of the Jusen Resolution Scheme**

1. The assets of the seven *jusen* companies totaling approximately ¥13,190 billion ($125 billion) will be transferred to the newly established Housing Loan Administration Corporation (HLAC).
2. The estimated losses of about ¥6,410 billion ($61 billion), which will be incurred upon the transfer of assets to HLAC, will be shared by the founding financial institutions (¥3,500 billion or $33 billion), lender financial institutions (¥1,700 billion or $16 billion), agricultural financial institutions (¥530 billion or $5 billion), and the government (¥680 billion or $6 billion).
3. The funds needed for HLAC to purchase the assets from the seven *jusen* companies are estimated at ¥6,780 billion ($64 billion), which will be equally provided by three groups of financial institutions—the founder banks, other lender banks, and agricultural financial institutions—with the guarantee of the Deposit Insurance Corporation. There is a possibility that a portion of the ¥6,780 billion in assets may turn out to be unrecoverable.
4. In the event such potential losses materialize, the government will assume half.
5. The other half of the losses will be covered by returns generated from a newly created fund called the Financial Stabilization Contribution Fund. The fund, created by contributions from private financial institutions, amounts to approximately ¥1 trillion ($9.5 billion) from which ¥100 billion ($0.95 billion) has been extended to HLAC as capital.

6. If returns are not sufficient to cover all losses, then the remaining losses will be borne by the Deposit Insurance Corporation as the guarantor of borrowings made by HLAC.

7. The Bank of Japan has also contributed ¥100 billion ($0.95 billion) toward HLAC’s capital. These funds have been channeled to HLAC via the Jusen Account established within the Deposit Insurance Corporation. The funds will be repaid to the Bank of Japan when HLAC completes its mission.
Comment

BIJAN B. AGHEVLI

This is an insightful paper that provides a comprehensive assessment of the problems facing Japan’s financial system: its root causes, the remedial actions taken, and the scale of the problem. In his characteristically frank manner, Akira Nagashima recognizes the past policy mistakes and certain shortcomings of the initial corrective measures. In broad terms, I agree with the assessment that, with the package of measures introduced in June 1996, an institutional framework has been put in place that provides the tools, authority, and flexibility both to deal with, and prevent, problems of bank soundness. Nevertheless, many Japanese financial institutions continue to face serious asset-quality problems, requiring continued close attention.

Institutional Framework

In discussing the institutional framework, my focus will be on those aspects that require further strengthening. Nagashima has outlined changes that are in the process of being implemented to improve the situation. Given the presence of so many experts at this seminar, it will not be necessary to delve into the intricacies of bank supervision and other institutional details, but rather to concentrate on certain important issues to keep in mind as the process evolves.

In the area of bank supervision, it is encouraging to see a clear recognition of the need to break from supervisory methods of the past. This recognition is reflected in the establishment of the new independent body outside the Ministry of Finance that will be responsible for inspecting and supervising, not only ordinary financial institutions, but also agricultural cooperatives, financial institutions under the jurisdiction of ministries other than the ministry, as well as nonbanks. Hopefully, the establishment of this body will ensure that supervision is exercised in a more arm’s-length manner than in the past; that it is independent of other goals of policymakers; and that it is allocated with adequate resources. While it is not clear from press reports what role the Bank of Japan will play in the supervisory process, it would appear desirable that it remain centrally involved in supervision, given its proximity to information, its existing expertise, and its lender-of-last-resort function. In addition, following the protracted jusen drama, the importance of regulating the activities of nonbanks
cannot be stressed enough, given the close interrelationship between financial institutions, and hence the systemic risk. In this regard, it would be interesting to know Nagashima’s thoughts on the difficulty the financial sector has had with the credit cooperatives. It seems that, despite the new supervisory framework, prefectural governments will continue to play a role in supervising institutions in their jurisdictions. But is it important to know how the responsibilities of the various supervisors have been clarified, and just how many players must be involved to be considered to be a problem?

As for the framework for dealing with failed institutions, Nagashima has raised the issue of the respective roles of the central bank, deposit insurance system, and the government in resolving failed institutions. Instead of entering into the debate regarding the extent to which Bank of Japan funds should be used, I will make a more general comment. It is essential that the losses be apportioned among depositors, borrowers, and the banking system in a transparent fashion and that the authorities refrain from ad hoc solutions that shift an unfair burden onto healthy institutions (as was the case in the resolution of the juse

Indeed, it should be a matter of strict public policy that shareholders and management are accountable for past behavior.

Nagashima also identifies the inadequacy of the accounting framework as an important reason for the failure of the market to detect and rein in excessive risk-taking of imprudent lenders, particularly for real estate. From fiscal year 1997, however, Japanese accounting principles are expected to be improved. An important measure is the principle that banks’ trading accounts are marked to market. This is certainly a good measure, but it is highly desirable that all assets and liabilities are marked to market. Indeed, a partial application of marking to market is inherently arbitrary and there is concern that it may result in new accounting practices that would potentially undermine market transparency. More specifically, the accounting of banks’ equity holdings is problematic as banks’ ability to realize paper profits by revaluing their equity holdings can obscure their true profit position. Indeed, to the extent that the recent reduction in banks’ problem loans has been accompanied by a reduction in their cushion of hidden reserves, the real improvement in banks’ financial position is overstated. It therefore seems desirable to apply the principle of marking to market also for evaluating banks’ equity holdings.

A broader problem that goes beyond accounting is the systemic risk shared by all Japanese banks because of their large holdings of equity. The sharp decline in equity prices in the early part of 1997 threatens to delay the resolution of problem loans in the Japanese banking
sector, due to the deterioration of banks’ capital positions. As a result of the decline in equity prices, banks will likely need to raise additional capital to maintain their capital ratios comfortably above the Basle capital adequacy requirement. Given the highly volatile nature of stock prices, it would be preferable that banks maintain their ratios well above the required minimum by strengthening their capital base through issuance of ordinary shares, preferred shares, and subordinated debt.

The Scale of the Bad Loan Problem

As for the scale of nonperforming loans, they represented about ¥29 trillion (or approximately 6 percent of GDP) at end-September 1996. While private estimates are considerably higher, these incorporate a broader definition of nonperforming loans. The ultimate loss on problem loans is likely to be much smaller than these gross amounts, as not all problem loans will prove unrecoverable, and the banks already have accumulated substantial reserves against losses. Overall, it is estimated that the major banks, on average, should require around two years to resolve their problem loans, while public money of only about 1–2 percent of GDP will likely be needed to close down some of the smaller institutions over the next decade or so. Thus, the difficulties of the Japanese financial system appear manageable, and there is little risk of a systemic crisis.

Role of Monetary Policy

It is also important to examine the role monetary policy plays in bank soundness. As Nagashima has noted, the roots of the financial sector difficulties can be traced to the bubble economy. While various factors contributed to the formation of the bubble, protracted easy monetary conditions stand out as largely responsible. Indeed, the origins of banking crises in many countries can be traced to a period of macroeconomic instability coinciding with deregulation of the financial system, without due attention to adequate supervision. In the case of Japan in the late 1980s, while inflation rose only moderately, an easy credit policy was channeled into asset markets, resulting in an asset price bubble. The question then arises: why was the bubble not recognized at the time?

On a number of occasions, Nagashima notes that monetary policy was too narrowly focused on the exchange rate in the late 1980s, and that, with hindsight, not sufficient heed was taken of the rapid rise in
asset prices. The Bank of Japan's current position is that "policy decisions should be made on an overall judgment of economic conditions. The exchange rate, although a factor to be considered, is not exclusive but only one of many factors." I would certainly subscribe to such an eclectic approach. In fact, in the IMF's work on Japan, we have found it useful to look at various indicators of monetary and financial conditions to evaluate the net impact of shocks, whether policy-induced or otherwise, on aggregate demand.

The IMF's Monetary Conditions Index for Japan is a weighted sum of the short-term real interest rate and the real effective exchange rate, with the weights reflecting their respective impact on aggregate demand. The index makes it possible to look at the net impact of real interest rates and real exchange rates on the economy. In response to criticism that the index was not broad enough, and in expectation of a withdrawal of fiscal stimulus in 1997, the index was extended to include the impact of changes in fiscal policy and equity prices on financial conditions. The new index, referred to as the "Financial Conditions Index," can be used to gauge the likely effect of various factors on financial conditions. The movement of this new index does indeed confirm that monetary conditions in the late 1980s were lax. Furthermore, in the more recent period during 1993–95, our analysis suggested that the strength of the yen compensated for the decline in the real interest rate and justified an earlier and greater monetary easing than was forthcoming. Monetary policy was too conservative at the time, perhaps in reaction to the experience of the late 1980s. In my view, the broader indices of financial conditions provide a useful input for formulating policy in a forward-looking manner that takes into account the effect of shocks on future activity. However, these indices should not be regarded as a measure of the monetary policy stance or as a target of monetary policy.

Before concluding, two broad generalizations should be made. First, markets have a tendency to lurch in certain directions from time to time. To say that the market should be allowed to operate freely does not imply that markets are always right. In this context, I note that the current pessimism in the financial markets regarding Japan's ongoing economic recovery cannot be reconciled with recent economic indicators. This pessimism contrasts with the market's excessive optimism in the late 1980s. Another relevant episode is the sharp appreciation of the yen in 1995 and the recent sharp depreciation. In both of these cases, myriad accounts point to why the yen would continue to move in one direction: at 80, many were saying it would go to 50, and now many predict it will go to 135. In such episodes, it is critical that policy analysts have the courage of their convictions and
provide policy advice on the principle that large deviations from the fundamentals will be short-lived.

Second, no matter how sophisticated our analytical tools for ex-post assessment of events, in many cases, they will fall short on an ex ante basis. It is therefore important to anticipate the impact of new events, rather than just rely on past experiences, thus resisting the general tendency to fight the last war. While the narrow lesson derived from Japan's experience in the late 1980s is that it is prudent to tighten monetary policy before the economy overheats, a broader lesson is that policy should be formulated in a forward-looking manner that takes into account the effects of shocks on future activity, as well as the lags between monetary actions and their economic impact. Under current circumstances—notwithstanding the sharp depreciation of the yen—the anticipated withdrawal of fiscal stimulus, the declining equity prices, and absence of any inflationary pressures, all justify the present accommodative stance of monetary policy. Such a policy stance would support the economic recovery that is ultimately the most effective means of overcoming the problems of bank soundness in Japan.
The factors behind Mexico’s banking crisis should be identified in order to reach a clear diagnosis and, therefore, a clear prescription for handling problems of this sort or, better still, preventing future ones. With the benefit of hindsight, the origins of the crisis can be traced to a combination of factors that, although difficult to disentangle, contributed to the fragility of the banking sector.

Mexico’s successful stabilization and structural reform in the late 1980s and early 1990s, including the deregulation of financial intermediation and privatization of the banking system—encouraged by international organizations and supported by prevailing market opinion—fueled a large expansion of the supply of loanable funds. Unfortunately, this occurred before banks had developed appropriate internal controls and before prudential regulation and supervision were adequate to contain the increased risk of new or expanded commercial banking activities. No one was fully aware of these weaknesses. This paper takes up each of these factors below.

Rapid Expansion of Bank Credit

Bank credit expanded rapidly from 1988 to 1994. First, the consolidation of public finances implied that the government no longer needed to absorb bank resources in order to finance its deficit. This allowed the gradual elimination of reserve requirements and government borrowing from banks and increased the availability of financial resources to the private sector.
Second, the liberalization of the financial and other sectors, as well as the successful macroeconomic stabilization and the privatization of public enterprises, brought about an important process of financial deepening, attracting very large flows of foreign capital to the country. These policies were widely applauded, mostly by participants in the so-called Washington consensus.

The consolidation of public finances shifted banks’ lending behavior away from financing the government and toward riskier lending to the private sector. As banks were reprivatized in 1991 and 1992, their risk evaluation staffs, inherited from the period when the government owned the banks or brought in by new private owners, were not in all cases prepared to operate in this new environment. During the years when bank lending was primarily directed to the government, the risk evaluation function had been overlooked, and organizational and information systems were not adequate to assess credit and market risks. Neither the public servants administering the commercial banks nor the supervisory authorities worried much about loan portfolio risk. In fact, by the end of the 1980s, when financial liberalization accelerated, bank credit to the private sector represented only a small proportion of banks’ total assets.

As of late 1988, Mexico’s financial system underwent deep structural changes. Banks were allowed to tap deposits at market interest rates and to participate fully in the government securities market. Moreover, quantitative credit controls were eliminated. As a result of both macroeconomic stabilization and financial liberalization, financial deepening took place. The year-end ratio of the stock of the broadest monetary aggregate (M4) to GDP increased from 32.3 percent in 1988 to 51.3 percent in 1994. This meant that the availability of loanable funds increased significantly.

In addition to the greater availability of domestic funds for lending, Mexico received important inflows of capital from 1990 to early 1994 in response to the policy reforms and the global trend of capital flows to emerging markets. During this period, improved expectations about the future course of the economy caused inexperienced bank credit officials and bank managers to confuse good and bad credit risks. In such an environment, too many borrowers seemed to have profitable projects and reasonably good prospects for servicing their debts. In turn, potential borrowers who had forgotten how to use credit prudently or who had never had any experience in paying debts, were not very cautious either.

Between 1988 and 1994, the stock of bank credit to the private sector approximately quadrupled as a percentage of GDP, albeit starting from a very low base by international standards. The ratio, measured
at year end, increased from 13.4 percent of GDP in 1988 to 50.7 percent in 1994. At the time, the expanded supply of bank credit to the private sector was viewed, both domestically and abroad, as a highly favorable development. At last, the private sector had access to the resources needed to increase production and improve living standards.

Available funds found ready takers. Private sector demand for bank credit was strong for several reasons:

1. Favorable expectations of Mexican economic performance;
2. The need to modernize and expand Mexico's industrial plant in light of increased competition resulting from a more open economy;
3. The appalling housing shortage;
4. Higher perceived permanent income;
5. Consumers wishing to replace obsolete stocks of durable goods; and
6. The need to finance the acquisition of public enterprises being privatized.

The factors that increased the supply of bank credit, and supported the private sector's demand for it, were desirable outcomes of Mexico's stabilization and structural reforms. Yet together these and other factors led to the surge of nonperforming loans.

Several developments accompanied the expansion of bank credit to the private sector. On the margin, the structure of credits to this sector shifted conspicuously toward financing consumer spending (particularly durables) and housing. Also, credits denominated in dollars grew rapidly through the beginning of 1992, when the central bank imposed restrictions on the increase of foreign currency liabilities of commercial banks.

These developments brought increased exposure to risk. Unlike government debt, private debt is not riskless. In addition, consumer and mortgage credit tend to be riskier than loans to firms, as legal proceedings in case of default are particularly cumbersome in the former cases, often rendering collateral on credits of little use. Moreover, dollar-denominated credits were subject to exchange rate risk.

Several prudential measures were adopted during the period. As previously mentioned, the central bank imposed limits on commercial bank liabilities denominated in foreign currency. Commercial banks were required by the Mexican treasury to observe the Basle capital standards. Stricter provisions for loan losses were prescribed by the National Banking Commission and, by late 1993, moral suasion by the central bank prompted a good number of banks to apply more rigorous standards for credit extension. In general, supervision was tightened. However, the supervisory ability of the National Banking
Commission had waned during the long years when banks lent little to the private sector.

By 1993, the net indebtedness of the private sector became increasingly burdensome due to a slowdown of the economy, diminishing employment opportunities, and persistently high loan rates from an all too active lending-borrowing process. As a result, many commercial bank loans that, from the start, were of dubious quality began to deteriorate rapidly. To put additional pressure on an already complex situation, interest rates further increased after March 1994 and the peso depreciated considerably as a consequence of interest rate hikes in the United States and unfortunate events in the Mexican political arena.

The Mexican banking system was already fragile before December 1994. A systemwide insufficiency of capital was becoming evident, a phenomenon explained by the relatively high level of past due loans that had not been adequately provisioned. Moreover, some commercial banks were operating with serious problems, which were not readily noticeable from the information disclosed to financial authorities. In some instances, bank administrators disregarded existing regulations and proper banking standards.

Managing the Banking Crisis

Although the macroeconomic repercussions of the December 1994 devaluation were very damaging to commercial banks, the immediate impact was limited. It is fitting to recall that the Bank of Mexico had already imposed a ceiling on the amount of foreign currency-denominated liabilities that banks could assume. This measure, adopted in early 1992, was in part based on the consideration that the central bank cannot, even if needed, indefinitely perform its function as a lender of last resort with respect to banks’ liabilities denominated in foreign currency. Additionally, it was estimated that limiting the banks’ capacity to contract foreign debt would help moderate the expansion of credit and, thereby, domestic demand and the current account deficit. Consequently, the run on banks’ external obligations in early 1995 was somewhat mitigated by the existence of these regulations. The harmful effects of the devaluation were also lessened by another ordinance that imposed a ceiling on banks’ open foreign exchange positions.

Nonetheless, the devaluation prompted other deleterious effects: inflation and interest rates soared, economic activity collapsed, the burden of servicing credits denominated in both foreign and domestic
currency increased, and banks’ capital ratios fell. By February 1995, half of Mexico’s banks were not complying with the Basle capital adequacy standards.

In order to deal with these problems, the monetary and banking authorities, through the Bank Fund for the Protection of Savings (FOBAPROA), implemented several programs to help solve difficulties faced by financial intermediaries that could have had systemic repercussions. These actions were guided by the ultimate goal of protecting the real sector of the economy and the immediate objective of maintaining and strengthening the financial system.

The different schemes to support the banking system and indebted bank clients were developed with the following principles in mind:

1. Prevent systemic risk;
2. Protect the legitimate interest of depositors and other bank creditors;
3. Help debtors strained by the macroeconomic crisis;
4. Resist pressures to bail out the stockholders of financial institutions;
5. Avoid expansion of the central bank’s credit;
6. Minimize the fiscal costs of the crisis management and distribute these costs over a number of years;
7. Interfere the least possible with the normal functioning of markets, but take care, in order to minimize moral hazard problems, not to create perverse incentives for debtors and stockholders; and
8. Implement programs that are both simple and transparent so as to foster confidence in the adopted measures.

**Programs and Facilities**

The package adopted to deal with the banking crisis in Mexico responded to many specific needs. In early 1995, a dollar liquidity facility and a temporary capitalization program were launched. Thereafter, programs to help debtors directly were made available. The objective was to ease the burden of servicing debt and to foster responsible payment practices by debtors. Direct support to debtors (homeowners, agricultural enterprises, and small and medium-sized firms) was provided through the absorption by the government of a portion of the interest rate and capital burdens.

For troubled yet viable banks, a number of programs were introduced to induce current and potential stockholders to inject fresh capital into these banks. To this end, the government purchased two pesos worth of a qualified loan portfolio for every peso of new capital paid
Problems of Bank Soundness: Mexico's Recent Experience

in by stockholders. Nonetheless, commercial banks have continued administering the loans and have shared risks with the government.

Furthermore, restrictions regarding participation in the capital of commercial banks have been eased with the aim of attracting new investors, both foreign and domestic. Nonviable banks are intervened, brought back to health and resold.

**Dollar Liquidity Facility**

The devaluation of the peso caused a loss of confidence in Mexico's financial system, and commercial banks faced difficulties in refinancing their dollar-denominated certificates of deposit (CDs) placed abroad. The purpose of the dollar liquidity facility was to stop, and eventually reverse, the run on the external liabilities of commercial banks. Relief took the form of dollar loans granted by the Bank of Mexico to commercial banks to enable them to pay all foreign currency liabilities as they came due. The high interest rates charged on these loans encouraged commercial banks to pay them back as quickly as possible and to look for cheaper sources of financing. In order to further encourage the prompt repayment of these loans, it was established that early repayment of even a portion of these loans would reduce the interest charged on some fraction of the outstanding balance.

Seventeen commercial banks benefitted from this program. At its peak in April 1995, the outstanding credit granted through this facility reached US$3.9 billion. By September of that year, all banks had paid off these debts by taking advantage of the renewed access to international financial markets.

**Temporary Capitalization Program**

The devaluation of the peso increased the domestic currency value of bank loans denominated in foreign currency. Consequently, the capital/asset ratio fell below the stipulated minimum. In addition, the stricter preventive reserve requirements enacted in February 1995 meant that many banks needed additional capital. To remedy this situation, FOBAPROA purchased subordinated debt instruments issued by commercial banks with capital/asset ratios below 8 percent. These debentures were mandatorily convertible to capital after five years. However, anticipated conversion was to take place should a bank's capital ratio deteriorate beyond certain parameters. The debt instruments were acquired by FOBAPROA with resources

1 Programa de Capitalización Temporal (Procapte).
2 Unidad de Inversión (UDI).
obtained from the central bank. However, in order to prevent an unwarranted expansion of net domestic credit of the Bank of Mexico, commercial banks had to deposit in the central bank the resources thus obtained.

Under this program banks enjoyed a relatively long time to obtain fresh capital and pay their debts to FOBAPROA. However, banks' stockholders might have lost their investment, or seen their participation diluted, had FOBAPROA become an owner. In that eventuality, FOBAPROA would have been a temporary shareholder and immediately proceeded to find new suitable owners.

It is worth mentioning that when faced with the mere possibility of having to rely on PROCAPTE's resources, some banks made an effort to increase their capital immediately. Five commercial banks obtained support through PROCAPTE, three of which have already paid in full their subordinated debt.

**Investment Units**

High inflation causes a serious problem that is seldom understood, particularly in countries that have not experienced inflation for a long time. This problem, which is not contractually foreseen, consists of the accelerated amortization of credits in real terms.

Perhaps the easiest way to explain this phenomenon would be to imagine what happens, during inflation, to a loan at perpetuity. It is evident that the value of the principal would remain constant in nominal terms but not in real terms. With inflation, the real value of the principal continuously deteriorates. Except when highly negative real interest rates prevail, the real amortization will be paid by debtors through interest payments. In this regard, it is necessary to remember that at times of high inflation, a large portion of interest payments goes to compensate the creditor for the erosion of the real value of the principal lent.

To deal with this serious problem, Mexico introduced the UDI, a constant value unit of account that is used to denominate credits. The daily value of the UDI reflects the behavior of the consumer price index, albeit with a short but inevitable lag. Consequently, the value of credits denominated in UDIs remains constant in real terms with regard to both principal and interest. In other words, credits denominated in UDIs are protected against the accelerated amortization caused by inflation.

The authorities had to step in to facilitate the restructuring of a large number of viable loans and encourage their denomination in UDIs. Thus, the loan restructuring mechanism involves the government—through FOBAPROA—and commercial banks. The latter bear the
credit risk, while the government bears the interest rate risk stemming from the conversion of credits into UDIs.

The banks' loan portfolios are transferred to trusts administered by the banks themselves. The trusts restructure the loans and denominate them in UDIs. To this end, the trusts obtain loans from the government, denominated in UDIs as well. In exchange for their loan portfolios, commercial banks acquire bonds issued by the government. Thus, peso-denominated liabilities of commercial banks remain matched by assets in the same currency.

In turn, the government ends up with domestic currency-denominated liabilities (the bonds acquired by banks) and UDI-denominated assets (the loans to the trusts). Consequently, the government bears the risk that the interest rates charged on its UDI loans will be lower than the real interest rates it pays on the aforementioned bonds.

Loans restructured in UDIs have medium- and long-term maturities, so that the potential fiscal cost is spread over a number of years. By the end of 1996, about Mex$167,000 million of the loan portfolio had been restructured in UDIs and approximately 375,000 debtors had benefited from this program.

**Permanent Capitalization Measures**

To facilitate bank capitalization and attract new domestic and foreign investors, certain legal restrictions concerning participation in the capital of commercial banks have been eased. The participation of Mexican legal entities in banks has been liberalized, and some of the obstacles for foreign banks based in NAFTA countries (those in the North American Free Trade Agreement) to acquire control over Mexican financial institutions have been removed. As of today, three medium-sized Mexican bank are already controlled by prestigious foreign banks. In addition, two large banks and one medium-sized domestic bank have opted for strategic partnerships with prominent foreign banks. Nevertheless, the new law does not permit full foreign ownership or control of any bank accounting for 6 percent or more of the banking system's capital. At present, this precludes foreign ownership or control of the three largest Mexican banks.

In addition, a scheme has been implemented to assist institutions to remain sound, with adequate provision and capitalization levels. The federal government, through FOBAPROA, provides an incentive to maintain these levels by offering to acquire a fraction of a bank's loan portfolio in a two-to-one ratio of new capital paid in by stockholders.

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3 Acuerdo de Apoyo Inmediato a los Deudores de la Banca (ADE).
In exchange for its portfolio, the bank must buy long-term bonds bearing market interest rates. The responsibility of administering the loans remains with the financial institution.

By the end of 1996, 12 banks had resorted to this facility for a total of Mex$119,300 million. This mechanism has induced banks to increase their capital by about 158 percent as compared to the December 1994 level.

Programs in Support of Debtors

The sharp increase in interest rates in 1994 and 1995, and the recession in the latter year, produced a substantial increase in the debt servicing cost for toll road concessionaires and a pronounced decline in highway traffic. To address this problem, the government introduced a program by which the toll road concessionaires may restructure their loans. The government, the banks, and the concessionaires assess the viability of each toll road with the aim of identifying the sustainable debt level. In the end, the government takes over that portion of debt that cannot be serviced out of the net income produced by the roads.

In August 1995, the Mexican government also introduced an unprecedented debt relief program (ADE)\(^4\) targeted at consumer, credit card, small business, agricultural, and mortgage loan debtors. This program addressed the difficult situation faced by a large number of debtors affected by high interest rates and the pronounced fall in economic activity and employment. The program sought to encourage loan restructuring and to foster responsible payment practices by providing debtors with interest relief and a legal truce.

By helping debtors remain current, the program aimed at reducing the systemic risk to the banking system stemming from widespread default, while maintaining a case-by-case approach to debt restructuring negotiations. Within this framework, the government shared losses with banks, seeking to minimize fiscal costs and distribute them over time, while preventing further distortions in credit markets. In addition, the program has entailed no monetary expansion, has helped to improve the quality of commercial banks' loan portfolios, and has induced payment discipline and reductions in required provisions. The program established clear cut-off dates, since it only covers loans outstanding as of August 31, 1995.

The main financial components of this program were a cap on loan rates for a predetermined period (September 1, 1995 to September 1, 1995)\(^5\).
The restructuring of mortgage loans in UDIs to alleviate cash flow problems. Up to 16 percentage points of the difference between the concessional interest rate, which varied depending on the type of loan, and the market reference rate was to be absorbed by the government. If such limit had been surpassed, commercial banks would have borne half of the additional cost.

The ADE program has worked successfully. A large number of the targeted credits has been restructured. Moreover, the cost of the program has been considerably lower than originally estimated, since the difference between the concessional interest rate and the market rate has been narrower than anticipated.

On May 16, 1996, the government launched another program aimed at relieving pressure in the housing market, the mortgage loan support program. The main objective of this program is to ease mortgage borrowers' heavy burden due to high interest rates and reduced purchasing power as a result of the economic crisis. Because of the recession, property values fell, in many cases below the outstanding amount of the respective loans. Under these circumstances, most mortgage debtors had no incentive to remain current in their payments.

In order to address this situation the program offers several inducements to avoid default:

(1) A 30 percent discount is available on payments due in 1996, which gradually declines to 5 percent in 2005 and applies only to the first 500,000 UDIs of the total loan.

(2) The amount available to restructure mortgages in UDIs has been increased by 43,000 million UDIs, to a total of 100,000 million UDIs (about US$22.3 billion as of mid-January 1997).

(3) A scheme of minimum payments equivalent to rent has been designed to help mortgage debtors that, notwithstanding the benefit of the discount, are unable to service their loans. Under this scheme, the debtor surrenders the property as full payment of the loan but retains the right to repurchase it.

(4) The federal government pays banks the difference between the original contractual payment and the new discounted payment. The government covers the difference in either cash or five-year credits bearing an interest rate equal to that on 91-day cetes (treasury bills).

The agricultural sector has also been severely affected by the economic crisis, and on July 23, 1996, the Mexican government established a loan restructuring mechanism (FINAPE) with discounts of

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"Acuerdo de Apoyo Financiero y Fomento a la Micro, Pequeña y Mediana Empresa (FOPYME)."
up to 40 percent, depending on the amount of the outstanding loan. The range goes from Mex$500,000 to Mex$4 million.

As with other programs, the cost of the discounts will be shared between the government and banks. However, since the program also seeks to promote flows of new financial resources to the agricultural sector, the cost borne by the government will depend on the amount of new resources banks inject into the sector. The larger the flow of resources, the greater will be the costs absorbed by the government.

On August 16, 1996, the government launched a financial support program for small- and medium-size firms (FOPYME). This program was designed to alleviate the heavy financial burden of small, viable firms and to help them finance their current activities. The discounts under the program range from 17 to 30 percent, depending on the amount of the outstanding loan. To be eligible, loans must be under Mex$6 million and have been contracted as of July 31, 1996.

Under this scheme, banks have agreed to promote economic activity by providing up to Mex$13,000 million in new financing to creditworthy firms. Banks are committed to maintaining these lines of credit in real terms for at least three years.

In the case of revolving credits, the program contemplates reductions between 5 and 22 percentage points in the contractual interest rate, depending on the amount outstanding. However, interest rates after the discount cannot be lower than 15 percent.

**Other Measures to Cope with the Financial Crisis**

In March 1996, Mexico announced the creation of Valuación y Venta de Activos (VVA), an agency similar to the U.S. Resolution Trust Corporation. This agency will appraise and sell the assets FOBAPROA acquires from the banks. In the process, VVA will promote the development of markets for banks’ debt instruments and other financial and nonfinancial assets.

The Mexican monetary authorities have also continued to strengthen the regulatory and supervisory framework through significant reforms in the financial sector. First, the National Banking and Securities Commission has improved banking supervision procedures and methodologies. Inspection procedures are being brought up to international standards. On-site, qualitative analysis of banks is being combined with off-site parametric analysis.

Second, stricter accounting standards are being adopted. In July 1996, banks began reporting their statements (on a preliminary and confidential basis) following a methodology similar to the generally accepted accounting principles in the United States. Beginning
Table 1. Estimated Costs of Support Programs for Debtors and Banks

<table>
<thead>
<tr>
<th>Program</th>
<th>Total Costs (Millions of pesos)</th>
<th>Net Present Value (Millions of pesos)</th>
<th>Percentage of 1996 GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>UDIs</td>
<td>21,600</td>
<td></td>
<td>0.9</td>
</tr>
<tr>
<td>ADE</td>
<td>4,300</td>
<td></td>
<td>0.2</td>
</tr>
<tr>
<td>FOBAPROA</td>
<td>70,500</td>
<td></td>
<td>2.8</td>
</tr>
<tr>
<td>Capitalization schemes</td>
<td>39,000</td>
<td></td>
<td>1.6</td>
</tr>
<tr>
<td>Toll roads</td>
<td>26,100</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>Mortgage loans additional benefits</td>
<td>27,200</td>
<td></td>
<td>1.1</td>
</tr>
<tr>
<td>FINAPE</td>
<td>14,200</td>
<td></td>
<td>0.6</td>
</tr>
<tr>
<td>FOPYME</td>
<td>7,400</td>
<td></td>
<td>0.3</td>
</tr>
<tr>
<td>Total</td>
<td>210,300</td>
<td></td>
<td>8.5</td>
</tr>
</tbody>
</table>

Source: Criterios Generales de Política Económica para 1997, SHCP (Ministry of Finance).

January 1997, reporting under this standard is mandatory, although some provisions will be introduced gradually.

Third, loan loss provisions have been tightened. Banks are required to provision the larger of 60 percent of their overdue portfolios or 4 percent of their total loan portfolios.

Finally, methodologies for the assessment of loan portfolios are being improved, and stricter limits have been set on lending to related interests. New capitalization rules, following the Basle criteria, impose capital requirements that take both credit and market risks into consideration.

Fiscal Impact

From the onset of the banking crisis, the government has been careful to quantify the cost of supporting the banking system and its debtors. In keeping with the objective of maintaining sound public finances, the government has effected the necessary adjustments to the budget to make room for these expenditures.

At present, the Finance Ministry has estimated that the total fiscal cost of the programs for debtors and banks will amount to Mex$210,300 million in present-value terms, which is equivalent to 8.4 percent of GDP in 1996. This cost will be borne over the next thirty years, the lifespan of the programs. Nevertheless, the exact cost cannot be known with certainty, since it depends on different contingent factors and since some of the costs may be recovered through
future increases in asset prices. Table 1 shows the estimated cost of each program.

The fiscal surplus generated by the Government of Mexico in 1995 and 1996, which amounts to 1.6 percent of 1996 GDP, has been applied to the support programs. Consequently, the remaining cost of the support programs is estimated to be 6.8 percent of 1996 GDP. This amount appears manageable considering that Mexico's ratio of net public debt to GDP is relatively low by international standards. At present, this ratio amounts to 33 percent of GDP.

**Monetary Impact**

Great care has been taken to ensure that the support granted by the Bank of Mexico to the banking system, as lender of last resort, does not produce monetary expansion. Hence, the central bank absorbs liquidity from the banking system so as to offset the resources it provides to FOBAPROA. Since the Bank of Mexico has had a large creditor position vis-à-vis commercial banks, the sterilization operation has been implemented simply by not renewing some of the loans that mature daily. Recently, the central bank has begun taking deposits from commercial banks, selling cetes or conducting repurchase agreement operations in order to absorb liquidity.

**Final Comments**

In hindsight, the Mexican financial system was overwhelmed by the volume of resources—foreign and domestic—that became available as a result of the structural reforms undertaken in the country. From an operational and managerial standpoint, banks were ill-prepared to handle the extraordinary expansion of credit during the 1988–94 period. Likewise, bank supervision did not keep abreast of developments in the market. Poor loan portfolios were the end result.

To a certain extent, these problems can be traced to the nationalization of banks in 1982. As a result of the nationalization, commercial banks lost many experienced officers who did not approve of the measure and who did not want the government as an employer. Furthermore, bankers who remained at their posts, or who were hired or appointed by public administrators, did not have access to the best training in the credit business, because throughout most of the 1980s loanable funds were almost entirely channeled to the federal government, whose nominal deficit—albeit not always its real deficit—was enormous.
When banks were reprivatized in the early 1990s, the new “teams” did not always include seasoned bankers. In retrospect, it is easy to condemn the fact that banks were allowed to be managed by these new teams. At the time it was not evident, however, that some of these bankers would be reckless, nor were many other candidates in sight.

Nonetheless, the actions undertaken by Mexico to overcome the financial crisis have yielded positive results. As systemic risk in the financial system has been eliminated, through government support and increased capitalization, the confidence of markets and of the public in financial institutions has been maintained. The debt relief programs have alleviated the difficult situation faced by many debtors, thus reducing or eliminating the growth of nonperforming loans. The fiscal cost of all the schemes to support debtors and the banking system has been limited to massageable proportions and will be distributed over many years. Moreover, the important process of opening Mexico’s financial system, which has deepened since the onset of the crisis, will enhance competition in this sector. In turn, this should lower financing costs and provide a boost to investment.

With all the programs now in place, it is our expectation that the problems of the banking system and its debtors will be gradually solved. The steady recovery of economic activity and the reduction in inflation and interest rates—all of which look promising—will be key factors to overcoming the difficulties in the financial system in the near future.
Because of Miguel Mancera's brief time, my remarks will focus on specific points in his paper. Mancera notes that even before December 1994 the financial system was in difficulty because of poor management during the post-privatization period, problems in dealing with the large capital inflows that occurred in the period from late 1988 to early 1994, and weak supervision. Then came the terrible political events of 1994 and the exchange crisis of December 1994 that resulted in major deterioration in the situation of the financial sector. The authorities moved quickly to address the financial crisis and with the substantial improvement in the broad macroeconomic situation there are signs that the problems of the system are being overcome. In many respects the approach adopted by the authorities conforms to what are now considered best practices for dealing with bank unsoundness:

- the fiscal costs were quantified and the budget was adjusted to make room for the public spending associated with the restructuring;
- a separate agency (the VVA) was created to dispose of assets acquired by the government under the restructuring process, and some assets were removed from the balance sheet of banks to allow them to focus on their core activities; and
- accounting standards, capital requirements, loan loss provisions, and bank supervision have been strengthened, while stricter limits have been imposed on lending to related interests.

However, Mancera's paper is less clear with respect to other aspects of best practices—ensuring an equitable sharing among the government, the shareholders of banks, and depositors and other creditors, as well as changing the management and management practices of banks in trouble.

The government has borne substantial costs through the special incentives that have been created to encourage the injection of new capital into the banks (the temporary capitalization and portfolio purchase programs); the partial writing down of payments on various loans (including mortgages and agricultural loans); and the assumption of various risks (including interest rate risk under the UDI scheme and credit risk under the portfolio purchase scheme). Mancera has noted that the costs to the public sector of the bank restructuring operations are subject to uncertainty, and he may wish to comment on the principal risks that in the end the fiscal costs of the restructuring operations possibly could be higher than estimated in his paper.
Meanwhile, it seems that depositors and other bank creditors have been fully protected. It is not clear to what extent bank shareholders have contributed to meeting the cost of the crisis through a write down in the capital of banks. It is also uncertain as to whether any banks have been closed under the restructurings or if there have been any management changes in banks in trouble. Also, it is not clear to what extent the government development banks have been affected by problems in the financial sector, and what changes the government is making in the operations of these banks.

Based on these remarks, Mancera may want to elaborate in more detail on these aspects of the restructuring effort.
Akira Nagashima (Chapter 9) and Miguel Mancera Aguayo (Chapter 10) have presented lucid explanations of the banking problems in their respective countries. Bijan Aghevli and Brian Stuart (see Aghevli in Chapter 9, Stuart in this chapter) have already discussed the key points dealing with the specifics of Japan's and Mexico's banking problems. Therefore, I would like to compare the two cases and also bring to bear other familiar experiences from daily work in the IMF.

The two cases of Japan and Mexico have some similarities: depositors were protected fully; fiscal costs were made explicit; and neither country resorted to inflation as a way to deal with banking distress. It is unclear whether existing bank owners were penalized in either of these two situations. There are some differences, though. For instance, the Bank of Japan focused on dealing with the banks' situation—easing the debt burden of borrowers was left to the new institutions that were set up; in Mexico, debt relief was part of the package to which the Bank of Mexico contributed.

Some broad conclusions can be drawn from the two country experiences discussed in this session. First, banking distress comes from various sources. In Japan's case, an asset price bubble was a major force in the country's banking difficulties. In Mexico, a credit expansion fueled by capital inflows and deficient credit analysis by commercial banks, together with shortcomings in bank supervision, have led to banking distress. In other countries, banking problems have surfaced in the wake of successful stabilization programs, since inflation in some situations had been concealing banking distress. Thus, both macro and microeconomic causes generally play a role in bringing about systemic bank distress.

Second, bank illiquidity and insolvency can be clearly distinguished from each other in theory but they are far more difficult to distinguish in specific cases. Quite often, illiquidity is only a manifestation of insolvency.

Third, when a banking crisis occurs, time is of the essence in remedying the emergency, and large resources are needed. In the case of the Mexican peso crisis in 1995, the cost was equivalent to more than 8 percent of GDP; in Japan, nonperforming loans were equivalent to about 6 percent of GDP. In other countries, costs of banking crisis have been also high. At least until recently the Central Bank of Chile
had an annual cost equivalent of about 1 percent of GDP, largely due to the cost of having assisted banks back in the early 1980s. Too often it is a country’s central bank that must take on the burden of addressing banking problems. This is because of the central bank’s responsibility and expertise with regard to banking and payment issues, the fact that it can immediately support troubled banks (even if this entails inflation), and the reluctance of other state agencies to act in often unclear situations that can often involve higher costs. Moreover, it is hard to imagine a government budget having large enough uncommitted funds to deal with an unexpected systemic banking crisis.

In these situations, in what way should the central bank act—beyond addressing macroeconomic reasons for the systemic banking problems? Providing liquidity to a solvent bank seems highly appropriate. However, even this may not always be feasible. For instance, Argentina’s currency board arrangement limits its central bank’s ability to assist banks, and thus other mechanisms had to be put in place. For example, the central bank allowed banks in a strong liquidity position to lower their required reserve balances if they lent those funds to banks having liquidity difficulties. Even when a central bank is able to provide liquidity, as noted above, it is often difficult to distinguish whether a commercial bank is just illiquid or also insolvent. Moreover, if a bank is insolvent but has systemic importance, the central bank faces difficult decisions: to close it, to salvage it (which implies a cost); or to seek to transfer its functions to other institutions. However, by intervening, the central bank risks running a quasi-fiscal deficit, and increasing moral hazard.

From our perspective, it is safe to say that systemic banking problems will likely continue to occur. A large part of the IMF’s members have experienced systemic banking problems over the last few years. Measures to reduce the likelihood and minimize the impact of those problems therefore become highly important. The preventive measures adopted by Japan and Mexico to avoid a recurrence of systematic banking problems are good examples of those actions. However, there is also a need to be prepared for inevitable future crises. Making arrangements to provide liquidity support to solvent banks should be part of those preparations. This is particularly important for developing and transition countries—that may have difficulties in accessing capital markets if systemic problems arose. For instance, the experience of 1995 led Argentina to raise liquidity requirements for banks and to obtain a contingent line of credit abroad.

While dealing with liquidity issues can be difficult, as noted earlier it is even more difficult to decide how and to what extent to support insolvent institutions of systemic importance. In any case, it is impor-
tant to ensure that the central bank does not have ultimate responsibility to pay for assistance provided to such institutions. In this regard, it is encouraging to note that both Japan and Mexico managed to avoid that pitfall.

There are some broad issues that systemic banking problems raise, on which I would welcome the views of both Nagashima and Mancera. First, how can a central bank and appropriate bank regulatory agencies decide on the respective roles of themselves and of the market in preserving banking soundness? Second, how can the banking system deal with moral hazard problems? Measures to deal with immediate banking problems may increase the possibility of moral hazard and negatively affect the longer term development of the system. Moral hazard affects depositors insofar as they lose incentives to consider a bank’s soundness carefully; borrowers insofar as they may expect their loans to be restructured if they encounter difficulties in the future. It also affects bank owners and managers insofar as those who are managing troubled or bankrupt institutions manage to hold on to their equity and maintain their respective managerial positions. Third, how to distribute the costs of banking problems? In particular, what amount should the healthy part of the system contribute? This is especially important, since placing a heavy burden on that sector could lead to financial intermediation being shifted abroad or to the unregulated domestic financial sector. Fourth, where should central bank assistance stop? Even if all agree that the central banks should provide some assistance to troubled institutions, it is unclear at what level such assistance should stop. Economists have sometimes suggested that central banks should focus only on protecting the payments system, and therefore, central banks should worry only about the institutions that are part of that system. However, it is clear that the Bank of Japan felt a need to assist nonbank financial intermediaries that are not part of Japan’s payments system.

Finally, Nagashima’s and Mancera’s presentations suggest that the problems in both countries would have been smaller had the authorities intervened earlier. Similar conclusions have been reached in other banking crises. I wonder whether the speakers have any views as to why these intervention delays are so common. Is it because it is hard to detect whether there is a need to intervene? Is it because the authorities have the expectation that maybe banks will be able to solve their problems on their own? Are there cases in fact where waiting can be appropriate? There remain many unanswered questions to the central bank’s role in banking soundness.
Mr. Mancera commented on questions raised by discussants on losses resulting from the Mexican financial crisis (Chapter 10). He stressed that depositors were protected from losses, and that in cases of systemic risk, it was not advisable to keep bank depositors uncertain as to the value of their claims on banks. The danger of not protecting depositors in such a situation could be immense. On the other hand, shareholders lost all or a considerable part of their investment. In many cases, shareholders lost control over their bank, and in other cases they were required to recapitalize their bank or lose everything. This was essential to avoid moral hazard, and because of fairness considerations. On moral hazard resulting from the bail out of depositors, Mr. Mancera argued that most depositors do not have the appropriate knowledge to assess bank soundness even if complete information were provided. In many cases, even bank supervisors have difficulties in evaluating the soundness of banks. Financial statements do not necessarily reveal the quality of bank portfolios. Mr. Mancera acknowledged that the cost of the financial crisis in Mexico was borne mostly by the government and shareholders. The costs could have been less had there been more time to deal with the crisis. However, the crisis required prompt action; markets needed to see that the authorities were not hesitant in rescuing the financial sector. Mr. Mancera added that liquidity support by the Bank of Mexico was not inflationary, since all amounts had been sterilized.

Mr. Nagashima confirmed that in Japan depositors were now protected up to the full amount of their deposits for a period of five years (as of 1996), and so far, market creditors had also been protected (Chapter 9). Mr. Nagashima acknowledged that there were certain moral hazard problems relating to depositors and creditors, but stressed that they were nonexistent as regard to shareholders since shareholders were not protected. He argued that the liabilities of Japanese financial institutions had to be protected so that any systemic financial difficulties would not occur. As regards the role of the Bank of Japan, Mr. Nagashima noted that the central bank would continue to play the role of maintaining financial stability in the new framework. He acknowledged that supervision of credit cooperatives, currently supervised by local governments needs to be reinforced. Strengthening measures in this regard would be discussed in connection with the establishment of the new institutional framework.
On enhancing accounting procedures, Mr. Nagashima noted that marking-to-market of assets held on trading accounts was one of the measures to be introduced. On equity holdings of banks, he noted that Japanese banks held equities in corporate and other financial institutions. Since 45 percent of unrealized capital gains of stock holdings could be included in tier II capital, banks experienced high volatility in tier II capital, but the share of this portion in their capital was reduced considerably as they had succeeded in raising other types of tier II capital. On the asset bubble issue, Mr. Nagashima noted that the bubble was certainly recognized early on, and there were voices that monetary policy should be tightened. Regrettably, these voices were not heard seriously due to the stability in general price levels which then prevailed and external pressures to keep Japanese interest rates low. On the current stance of monetary policy Mr. Nagashima stated that the current easiness would be maintained until it became reasonably clear that the ongoing recovery was self-sustaining.

Mr. Nagashima noted that banks in Japan had traditionally used real estate as collateral on the assumption that real estate prices would continue to rise. As a result of the steep decline in real estate prices, Japanese banks became more prudent, though real estate collateral continued to be used. Mr. Nagashima considered that most large banks would be able to resolve their bad loan problems in a few years. He acknowledged that the relationship between external auditors and banks was somewhat “cozy” in the past, and felt that this had now changed.
Part V

Financial Innovation and Banking Soundness
Let me begin by discussing why, and in what senses, banks have been regarded as special. The term "bank," historically and more than ever today, covers a multitude of sins. In practice it refers to a range of very different institutions that may, and do, within legal restraints, engage in a variety of different financial—and even some nonfinancial—activities whether on their own account or in an agency or advisory capacity. But banks have some key distinguishing characteristics in common. In particular they take unsecured deposits from the public at large.¹

The particular characteristics of bank deposits are that they are capital certain and (more or less) immediately accessible to the depositor, so that they came to be used as the principal means of making payments. In short, because of their convenience, bank deposits became the predominant repository for the immediately liquid asset holdings of the rest of the economy, and the predominant form of "money."

The attraction of these deposit and payments services depends upon depositors, generally having a high degree of confidence that their

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¹In the United Kingdom a bank is legally defined as an institution authorized by the Bank of England under the Banking Act to take deposits. This definition excludes a large group of specialists, mutual institutions, and the building societies, whose essential business is deposit taking for mortgage lending for house purchase and which are authorized by the Building Societies Commission under separate legislation. But this is an institutional detail, and it is notable that as they have extended into the money transmission business and diversified their lending activity many of these institutions have elected to convert themselves into fully fledged banks.
funds will in fact be available on demand and upon the cost of the services. In providing the services, therefore, the banks need to strike a balance between deploying their deposits in low-yielding, high-quality, liquid assets to meet cash withdrawals and riskier investments to generate a higher return. In this latter context, banks have traditionally played a key role in financing the corporate and household sectors, earning their return by gathering information about, and assessing and monitoring the creditworthiness of private sector borrowers, especially those who do not or cannot provide, in a cost-effective way, the comprehensive, public information that would allow them to access the capital markets. Much of the banks’ lending, while nominally at short term, for example in the form of callable overdrafts, is in practice illiquid and nonmarketable. So a further distinctive characteristic of banks is that they typically function with a mismatch between their highly liquid liabilities and their less liquid, nonmarketable assets.

There is no need to labor the importance to the economy as a whole of these distinctive banking functions, or the damage that would be caused if the banks’ role—as the repository of liquidity, as the core payments mechanism, and as the principal source of finance to at least a large part of the economy—were seriously interrupted. That in itself helps to explain the public interest in the effective functioning of the banking system, or why banks collectively have been regarded as “special.”

But beyond that, the distinctive banking characteristics of liquid liabilities and less liquid assets give rise to special needs. Given the banks’ role in the payments system, they may need late access to liquidity to square their positions vis-à-vis each other after executing payments instructions on behalf of their customers. This explains why, in their routine monetary operations to relieve shortages in the money market, central banks in many countries tend to confine their (late) lending to banks even when they accept a wider range of counterparties in providing liquidity through open market operations.

The same distinctive characteristics make banks especially dependent upon public confidence. Bank depositors are not generally in a position to monitor or assess the financial condition of their bank, so any suggestion that a particular bank may not be in a position to meet its liabilities is likely to lead to the panic withdrawal of its deposits. This can precipitate the suspension of payments as a result of lack of liquidity even when a bank is solvent as a going concern; and the forced realization of illiquid assets may itself result in insolvency. Moreover, any suggestion that one bank is in trouble may be taken—perhaps wholly unjustifiably—as evidence that other banks are like-
ly to be facing similar problems, especially when they are engaged in similar activities. Bank runs can for this reason become contagious. And the risk of contagion is increased by interbank exposures, including those arising from the banks' role in the payments system. So the "special" nature of banks has reflected not just their distinctive functions, and the importance of those functions to the wider economy, but also their peculiar vulnerability to liquidity pressures. Central banks evolved in response to this vulnerability, which gave rise to a readiness to act as lender of last resort to the banking system in situations in which substantial systemic disturbance could otherwise occur and to an ongoing concern for the macroprudential characteristics of the banking system. And while this concern relates to the banking system as a whole, last resort assistance, when it is judged to be necessary, is extended to individual banks because problems of course arise in the first instance at the level of the individual bank.

Now, the fact that central banks (in conjunction as necessary with governments) are prepared, in certain circumstances, to extend support in this way encourages bank intermediation; it represents in effect a form of subsidy, implicitly justified as being in the wider interest of the economy. It helps to preserve public confidence; and it enables the banks to take on more maturity transformation or risk than they could otherwise, so lowering the effective cost of their intermediation. But it has long been recognized that if central bank support is made available too liberally—in situations where there is no genuine systemic risk, so that it comes to be relied upon as a matter of course—then that would give rise to moral hazard. The extent of bank intermediation would be unjustifiably expanded. On the one hand, the banks themselves may be encouraged to take on excessive risks; while on the other, depositors may be encouraged to ignore risk and to become literally careless as to where they place their deposits. So, both the safety and soundness of the banking system, and its competitive efficiency, and that of the financial system more generally, may be undermined.

Central banks' macroprudential concerns for the stability of the banking system have necessarily meant that they have taken a close interest in the risk characteristics of individual banks as the component parts of the system. But more recently (at least in the United Kingdom, with the coming into force of the first banking act in 1979), individual banks were brought under formal banking supervision for the first time, and nonbank depositors were provided with limited deposit insurance. Such microprudential supervision of each individual bank, of course, also helps to reduce the risk of instability in the
system as a whole, and even limited deposit protection may reduce the risk of bank runs, at least in the form of the sudden withdrawal of retail deposits. This, too, of course, can give rise to moral hazard problems if it is perceived as tantamount to a guarantee. But micro-prudential supervision and deposit insurance were introduced in the United Kingdom at least (though not in the United States) with the distinct social purpose of providing individual small depositors with a degree of protection against the sudden loss of their principal liquid asset holdings. This made banks, and bank deposits, special in a different sense insofar as similar formal supervision and asset protection were not (at that time) extended to other financial intermediaries or their liabilities.

Changes in the Role of Banks

These then are the respects in which banks have been regarded as special. This paper now moves on to consider whether, or to what extent, the banks have kept their distinctive characteristics, or to what extent other financial institutions have developed similar characteristics so that banks are no longer special in that sense.

Banks engage in a range of financial activities besides traditional "banking" activities. Major banks everywhere have increasingly diversified the products and services they offer, built up investment banking businesses and trading activities, extended into life insurance, and so on, sometimes on a single balance sheet or sometimes using separate nonbanking entities. In the present context, however, the question is whether these developments have fundamentally altered the characteristics of the "banking" part of their balance sheets. Generally speaking, the answer is no.

On the liabilities side, while there may have been (indeed in some countries, where close substitutes for money, such as money-market mutual funds have taken off, there certainly has been) some erosion of the banks' market share as a repository for liquid asset holdings, that erosion has generally been very gradual. In the United Kingdom, for example, bank (and building society) deposits still account for 42 percent of personal sector liquid asset holdings, against 50 percent a decade ago; the proportion would be very much higher if liquid assets included only those that are capital certain. And the vast bulk of the banks' liabilities remain in the form of unsecured, short-term deposits. Despite the rapid development of (secured) repo markets, only some 3 percent of the major U.K. banks' funding (in sterling and foreign currency together) was secured through repos as of fall 1996; and the
figure for all U.K. banks, including the business conducted in branches and subsidiaries of overseas banks, which have less direct access to deposits, was only around 8½ percent. The proportion of secured funding is less than 5 percent for other major internationally active banks, that the Bank of England has looked at, with the exception of J.P. Morgan and Bankers Trust—both somewhat special cases—where the proportion is very much higher (25–35 percent). And even in those special cases it is still well below that for the major U.S. securities firms (typically 55–80 percent).

Banks remain, too, at the heart of payments systems. Payments may be made directly across bank accounts through instructions, for example, in the form of check or debit card; or they may be made indirectly, through, for example, the use of credit cards, the balances on which are subsequently settled using a bank account. Even where disintermediation creates new checking facilities, as for example, in the case of money market mutual funds, these checks are still cleared through settlement banks. It is true that new forms of money transmission—e-money—are being developed, sometimes outside the conventional banking system, but they, too, are likely to depend upon clearing through the banking system. To the extent that they come to involve the creation of what are effectively direct deposits, they will represent "banking" in a different form and become special, and logically subject to regulation, in much the same way as conventional bank deposits. In the payments system context, too, important progress is being made to reduce interbank exposures (through the introduction of real time gross settlement systems in many countries, for example, and through the netting of foreign exchange settlements), but those exposures, as well as interbank exposures incurred in direct interbank transactions—the large bulk of which are unsecured—remain extraordinarily large. Individual interbank limits can substantially exceed 25 percent of capital (the normal supervisory limit for large exposures), and, as an example of aggregate interbank exposures, the major U.K. retail banks currently place some £115 billion, or 16 percent of their total assets, with each other or with other U.K. banks.

Turning to the assets side, there is some evidence of a gradual erosion of the role of banks in financial intermediation. One measure in the United Kingdom is a decline in the banks' (and building societies') share in the assets of the whole financial sector (including securities firms, collective investment vehicles, life insurance, and pension fund investments), which has fallen fairly steadily over the past ten years, from close to 70 percent to some 55 percent. In the United States, where financial innovation has probably been even
greater, comparable figures also show this decline, from about 45 percent in the mid-1970s to about one-third now.\textsuperscript{2}

In the United Kingdom, bank lending to the corporate sector has fallen erratically, from some 27 percent of total corporate borrowing outstanding (including all forms of debt as well as equity issuance) in 1985 to less than 17 percent in 1995. This mainly reflects the increased access of larger corporate borrowers to the domestic and international capital markets for short- and longer-term corporate paper, where they often have a better credit rating than banks. Smaller corporations, on the other hand, remain very heavily dependent upon bank finance—for well over half of their overall financing needs. Meanwhile the banks’ share of net external finance of the personal sector has not changed much at all over the past decade, at around 80 percent.

Trends in the liquidity of bank assets are difficult to assess because liquidity itself is so hard to judge simply from balance sheet categories. The advent of securitization and the direct sale of loans ought to have increased the liquidity of bank assets.\textsuperscript{3} But, except in the United States, securitization has in fact so far made only limited progress, and debt sales have focused mainly on impaired developing country or corporate debt. One reason why prime corporate loans are not so far traded is the importance that both banks and borrowers still attach to their mutual relationships. Over time, the liquidity of bank assets will probably increase by these means, and that process may be helped by the development of techniques such as credit derivatives. But for the time being—and indeed some time to come—bank loans are, for the most part, likely to remain illiquid in most countries.

We can nevertheless look at the crude balance sheet data of banks and, for what they are worth, at the share of loans to nonbanks in total assets as a measure of the liquidity of the asset portfolio for a range of different types of institutions. These data show that:

\textsuperscript{2}J.H. Boyd and Mark Gertler “Are Banks Dead? Or, Are the Reports Greatly Exaggerated?” Federal Reserve Bank of Chicago, 30th Annual Conference on Bank Structure and Competition, May 1994 suggest that banks’ share has been stable if you adjust for off-balance-sheet activity and for the activities of foreign banks.

\textsuperscript{3}Boyd and Gertler in “Are Banks Dead?” estimate U.S. bank holding company loans securitized or sold down in 1993 at $135 billion; other estimates (“Remarks by the Vice Chairman of the Board of Governors of the U.S. Federal Reserve System, Alice M. Rivlin,” at The Institution National Issues Forum in Washington D.C., on December 19, 1996) suggest that now it may be $200 billion or more. These figures compare with loans and advances remaining on the banks’ balance sheets of some $2.25–2.5 trillion.
• for some small representative, domestic U.K. banks the loan ratio is still some 70–80 percent of the total, apparently with no particular trend;
• for large, internationally active, U.K. banks the share of loans is currently around 50 percent, having fallen quite sharply from 65–70 percent some five years ago, perhaps reflecting the expansion of their investment banking activity;
• for large continental banks, the share of loans is either side of 50 percent, having fallen more gradually. Again J.P. Morgan and Bankers Trust are outliers. Their loan ratio to total assets is down to around 12 percent from around 50 percent in 1985 and 30 percent only five years ago. That is still much higher than the illiquid asset ratio for the large U.S. securities firms, which has fairly consistently been around 2 percent.

The conclusion from all of this is that while there certainly have been important changes affecting the banks, and the environment in which they operate, they have not, yet at least, been such as to affect fundamentally their relevant key functions or the importance of those functions to the economy; nor have they altered fundamentally the distinctive characteristics of either the banks’ liabilities or their assets.

Changes in the Role of Other Financial Institutions

To what extent have other financial institutions developed similar characteristics to the distinctive characteristics of banks? The question, just to be quite clear, is not whether other financial institutions perform economically or socially important functions---clearly they do—and those functions may equally be “special” in their own distinctive ways. It is also true that, with the upsurge in financial innovation and globalization over the past 10–20 years, there has been substantial blurring of the boundaries between different types of financial institution and the increasing emergence of multifunctional, multinational, financial groups, so that nonbank institutions have taken over banks or offered banking services just as banks have entered substantially into nonbanking financial activities. The real question is whether the distinction between banking and nonbanking financial functions has been eroded, again whether those functions are carried out in separate entities or on the same balance sheet. In my view, the answer is no.

Take, for example, long-term savings institutions, life insurance companies, and pension funds. They clearly perform a vital econom-
ic and social function, and they are subject to separate functional regulation because of their "special" importance as homes for the long-term savings of the personal sector and as providers of long-term capital. But their liabilities are totally unlike the very liquid liabilities of banks, and the liquidity of their assets and liabilities are much more closely matched: indeed their marketable assets tend to be more liquid than their liabilities. The distinction remains even where these activities are carried out in a banking group, though in this case the different businesses have to be conducted on ring-fenced balance sheets and subject to different prudential tests, reflecting the quite different nature of the contracts and the different risks involved. That is not to deny that there may well be risks running from one part of the group to another—for example, reputational risks or operational risks arising from shared systems or personnel and so on. It is not to deny either that there can be large cross-functional financial exposures. That, of course, is why the respective supervisors need to take an interest in all parts of a financial group and in intragroup exposures. But none of this means that long-term savings institutions have taken on the distinctive special characteristics of banks.

So far, this paper has argued that banks have maintained a particular distinction. But are there cases that indicate otherwise? What about money-market mutual funds, for example? Surely they at least have some of the characteristics of banks. They, too, act as a repository for liquidity, and it is possible to make payments from some of them, which looks very much like a banking arrangement. But in fact this appearance is deceptive, for three reasons:

- first, investments in money market mutuals are not in principle capital certain (though in practice they may be supported by the fund’s sponsor); nor are they covered by deposit insurance (though this may not always be understood by the investor);
- second, money-market mutuals are not themselves at the heart of the payments mechanism, but in effect piggy-back on the banks that are; and
- third, money-market mutuals do not undertake maturity transformation by making illiquid loans; like all collective investment schemes they put their investors’ funds into marketable instruments in accordance with the rules of the fund.

Whereas money-market mutuals have something of the character of banks on the liabilities side of their balance sheets, but not on the assets side, the converse is true of nonbank finance companies. They do make illiquid loans, much as banks do. But they typically fund themselves in capital markets or from the banking system, and do not offer capital-certain, immediately available, liabilities to the public at
large that are in any way comparable to bank deposits. Nor do they typically offer payments services.

But what about the free-standing securities houses—and in particular those of American and Japanese parentage that have, up to now, been separated from commercial banking activity by the Glass-Steagall Act and by Article 65? They, surely, both have liquid liabilities and engage in maturity transformation; and, of course, they do actually operate partly through banking entities outside their home jurisdictions.

Again, appearances may deceive. The liabilities of the houses are not in fact a bit like bank deposits. While it is true that the houses have increased the extent of their unsecured funding—for example through public issues—the bulk of their liquid liabilities are still secured, with some 55–80 percent of the total funding of the U.S. houses we have looked at typically in the form of repos. Nor do the houses hold themselves out to take deposits from the public at large. Nor, finally, are their liabilities directly usable as a payments medium. In all respects, the houses’ liabilities are nonmonetary—even if they can rapidly be turned into money.

On the assets side of the balance sheet, the securities houses continue to invest primarily in liquid, marketable assets which can readily be sold. This is partly a reflection of the nature of investment banking business—in particular, trading, underwriting, and so on—and of regulatory requirements, but also of funding uncertainty: the securities house protects itself by being able, if necessary, to contract the size of its balance sheet very rapidly. Illiquid assets continue to be a small proportion of the total, generally on the order of 2 percent, and the houses mitigate the maturity transformation risk in holding these, and marketable assets of more doubtful liquidity (such as some emerging market instruments), by matching with long-term borrowings.

It is true that the securities houses have expanded their activities enormously—with balance sheets extending to $100–200 billion—which puts them in this respect on a par with large international banks. And, given their focus on trading activity in money, capital, and foreign exchange markets, they are huge counterparties of the banks, with very large exposures both among themselves and between them and the banks, but with the important distinction that exposures between, or to, securities houses are more typically secured. Size in any event does not in itself mean that the securities houses now have the special, distinguishing characteristics of banks—any more than the long-term savings institutions or the money funds or indeed large nonfinancial corporates, which may also have huge balance sheets.
and which may also have large treasury operations in-house to manage the funds for their own account.

**Systemic Risk**

Thus, banks are indeed still special insofar as they continue to perform distinctive economic functions and insofar as their liabilities and assets still have distinctive characteristics. This means that there is still a distinct public interest in the activities of institutions that are engaged in banking, whether as free-standing entities or within a broader group structure. That interest includes a microprudential concern to provide some measure at least of protection to public depositors, reflected in the supervision of individual banking institutions and in deposit protection schemes. But it includes also a macroprudential concern with the stability of the banking system as a whole, because of its peculiar vulnerability to a contagious—systemic—disturbance, reflected in central banks' preparedness to provide liquidity to the system where that is judged to be necessary.

Other forms of financial activity also perform distinctive functions, and have distinctive characteristics that make them special in their own different ways. And these special features equally may—and often do—give rise to special public interests. The public interest in these other financial activities may be driven by a social concern to protect consumers (for example, the prospective beneficiaries of pension funds or life insurance policy holders, or investors, whether in collective funds or individually, through different kinds of intermediary, in capital markets), which is similar to the social concern relating to depositor protection. And it may extend to other aspects of the particular activity, including aspects of business conduct as well as the financial integrity of the institutions involved. In fact, the public interest in nonbanking financial activity has certainly increased in this sense—both in terms of the range of activities covered and the standards of protection demanded—as is reflected in the spread of financial regulation over the past 10–20 years as the activities themselves have expanded. The Financial Services Act in the United Kingdom, for example, which provides for formal regulation of investment business, dates only from 1986. A corollary of this broadening public interest is that multifunctional financial services providers are bound to be subject to a broadening range of functional regulation—however such regulation is structured.

What is less clear is the extent and nature of the public macroprudential interest in nonbanking financial activities. Other, nonbanking
financial activities are not—because of the different characteristics of the related liabilities and assets—subject to runs in the same way as banks, and that they are not therefore subject to contagious (systemic) disturbance in the same sense as banks. But that does not mean that nonbank financial institutions cannot face liquidity pressures. It does not mean either that the failure of a nonbank financial institution could not—through its direct credit or settlements exposures to other financial institutions (bank or nonbank)—have damaging knock-on effects. Conceivably, too, such a failure could have such serious consequences for the liquidity of—or price level in—some particular sector of the financial markets, that concerns would arise for the liquidity, or solvency, of other bank or nonbank institutions that were known, or believed, to be heavily exposed to that market. In this sense, size does matter—and, whether or not one chooses to describe the risk of this happening as systemic, there is no doubt that a sufficiently large disturbance originating in the nonbanking activity of one financial institution could put others in difficulty.

The possibility of such a disturbance must be of concern to financial regulators, including central banks, concerned with the stability of the financial system as a whole. It certainly provides macroprudential justification for regulatory oversight of the activity of (large) nonbank financial institutions, and of the nonbanking activities of banks—quite apart from microprudential regulation in the interests of consumer protection. It provides justification, too, for some form of consolidated prudential oversight of multifunctional financial groups and for monitoring large exposures, both intragroup and to outside counterparties. Where a problem of this sort does arise, it may well justify technical central bank intervention to help contain it—for example, by facilitating payments and settlements to minimize market disturbance. But, one should be very cautious about extending the last-resort liquidity provision to financial institutions not engaged in "banking" activity, and where the particular justification for it, based upon banks' distinctive functions and the distinctive characteristics of banks' balance sheets, did not clearly apply. While such intervention cannot, realistically, be excluded altogether, an unduly liberal interpretation of systemic risk would increase the scope for moral hazard and ultimately weaken the safety and soundness of the financial system as a whole.

Conclusion

My answer to the question “Are banks still special?” is essentially that while in some respects they may be less special than they were,
they remain special nonetheless. They remain special in terms of the particular functions they perform—as the repository of the economy’s immediately available liquidity, as the core payments mechanism, and as the principal source of nonmarket finance to a large part of the economy. And they remain special in terms of the particular characteristics of their balance sheets, which are necessary to perform those functions—including the mismatch between their assets and liabilities that makes banks peculiarly vulnerable to systemic risk in the traditional sense of that term. Notwithstanding this, I do not at all exclude the possibility that other financial activity will continue increasingly to be carried on alongside banking activity, even on the same balance sheet; indeed I expect that to happen. That, in my view, does not reduce the special public interest in banking activity; although it may well affect the appropriate substance of banking supervision; and it certainly extends to banks’ other, different, functional public interests, including different regulatory interests. On the other hand I am not persuaded that the special public interest in banking activity extends to nonbanking financial institutions, though different functional public interests in many cases clearly do. What is absolutely clear, in a world of increasing financial integration, is that neither the financial regulators nor the central bankers among you can expect an easy life!
Eddie George has presented a fine survey on the question of whether banks remain special and his paper makes many good points, virtually all of which I support. As a consequence, these comments will be more in the nature of expanding upon George’s remarks than in taking issue with his main points.

As George noted, the degree to which each of us regards banks as “special” is bound to be colored by the history and development of banking in our respective countries. Of course, U.S. banking is quite unique in many respects. Relative to the United Kingdom, for example, the United States has many more depositories (on the order of 25,000), and they operate under more regulatory restrictions than those in the United Kingdom and many other countries. Also, our system of deposit insurance is more generous than in the United Kingdom. Bearing these differences in mind, I will address aspects of bank specialness that apply more or less in all countries, but I will draw on U.S. experiences for illustrations.

To begin, the seemingly simple question “Are banks still special?” is deceptively difficult. In forming a response to George’s paper, I was compelled to ponder a series of even more basic questions, such as “How do we define a ‘bank’?” “What do we mean by ‘special’?” and “If banks are special, what does this imply about the proper stance of government vis-à-vis the banking industry and other types of financial services providers?”

For the purposes of this discussion, I define a bank rather broadly, as any financial intermediary that accepts deposits and extends loans to households or businesses. In the United States, this definition encompasses domestic commercial banks, branches of foreign banks operating in the United States, savings and loan associations, and credit unions.

Defining what constitutes “specialness” is more difficult. In general terms, analogous to George’s definition, a “special” aspect of banking is the clear and pronounced public interest exceeding that present in other types of business and commerce; “special” does not necessarily imply, however, that the aspect of banking in question should be isolated or insulated from competition with other financial service providers. At least three general aspects of banks and banking have been deemed special by many observers—the liquidity transformation function of banks; the provision of basic financial services, such as
Is the liquidity transformation function of banks still special? The term “liquidity transformation function” refers to the typical balance sheet structure of banks, which often features a sizable volume of highly liquid liabilities—those that can be withdrawn at par on demand, such as balances in checking accounts—in combination with a portfolio of generally longer-term assets that often are difficult to sell or borrow against on short notice.

It is probably fair to say that there is considerable agreement among central bankers and other economic policymakers that this unique balance sheet structure creates an inherent potential instability in the banking system. Rumors concerning an individual bank’s financial condition—even if ill founded—can spark a run by depositors and other creditors that may force the bank to unload assets at firesale prices and, in extreme situations, suspend payment on withdrawal requests. Especially if the distressed institution is large or prominent, the panic can spread to other banks, with potentially debilitating consequences for the economy as a whole. Most countries with private banking systems have experienced episodes of bank panics, to some degree, and in the United States such panics occurred with some frequency in the late nineteenth century and were a major factor exacerbating the Great Depression of the 1930s. While institutional regimes differ, most countries have established safeguards against banking panics that rest on three basic pillars—some form of deposit insurance (explicit or implicit), a program of banking supervision and regulation, and an institution that can act as lender of last resort.

To return to the basic question of whether the liquidity transformation function of banks and the associated instability remains “special,” I would say that there is simply no doubt about it. Wherever banking panics have occurred, their effects on economic performance have been crippling. Thus, developing institutions and mechanisms that can prevent or short-circuit bank panics remains an important and “special” goal for economic policymakers. Having said this, however, recent experiences in the United States and elsewhere have underscored the importance of going about this task in a way that does not overextend the banking “safety net.” In the United States, this lesson was painfully conveyed during the 1980s and early 1990s by hundreds and hundreds of bank and thrift failures. While this phenomenon was extraordinarily complex, many have argued that underpriced deposit insurance and relatively lax supervision contributed to the problem by distorting the incentives banks and thrifts faced in assessing the risks of their business decisions.
In response, U.S. federal banking agencies have implemented changes that trim the banking safety net somewhat—for example, by requiring prompt closure of troubled institutions, by applying stricter rules governing the payoffs of depositors and other creditors in bank failures, and by curtailing the practice of allowing regulatory “goodwill.” In addition, new bank capital regulations such as the Basle risk-based capital standards, which have been implemented in the G-10 and have served as a blueprint for capital regulation in many other countries, have helped to provide better incentives for banks in their business decisions.

To summarize, banks remain quite special in their susceptibility to runs and in the severe consequences that a large-scale banking panic would involve. Balancing the need for a banking “safety net” to defuse potential bank runs with the need to create the right incentives for banks in assessing and assuming risk is one of the most difficult challenges faced by central bankers.

A second way in which banks have been deemed to be “special” is in the provision of basic banking services, such as credit extension, deposit taking, and payments processing. There is little question that these functions are critically important throughout society. Consumers turn to banks for safe investments such as time and savings deposits, for transactions deposits, for processing payments, and for short- and long-term credit. Large and small businesses rely on banks for payments processing, short-term credit, and backup credit lines. And governments rely on the banking system to conduct payments, distribute currency, safeguard tax receipts, and serve as a conduit for monetary policy. In short, the basic business functions of banks are at the heart of the financial system and the economy overall. By the definition put forward earlier, these basic functions performed by banks are and will remain special. However, it is far from clear that these functions can only be performed by banks or that there is always a “special” public purpose in ensuring that banks’ role in performing such functions is protected.

Indeed, as George noted, nonbanks have made impressive inroads in markets that previously had been largely banks’ domain. For example, money-market mutual funds and stock and bond mutual funds have lured billions of dollars that formerly had been placed in staid bank investments, such as certificates of deposit. Most mutual funds now also offer some “banking” services, such as checkwriting privileges. The advent of asset securitization has allowed nonbank mortgage companies to compete successfully with banks in the home mortgage market, and nonbanks have also been important players in the explosion of new financial instruments, such as derivatives and structured notes.
For the most part, this blurring of the traditional lines between banks and nonbanks seems to be a positive development. New competitive forces have been unleashed, financial innovation has accelerated, and businesses and households now enjoy a far greater range of choices on their menu of financial services than they did only a decade ago. Banks have responded vigorously—and successfully, given recent trends in profitability—to the challenges posed by nonbank competitors. To be sure, such rapid changes have also posed new risks. It is critical in this environment that policymakers stay abreast of market developments to ensure that banks and nonbanks face the right incentives in assessing the risks of their business decisions, and likewise to ensure that consumers and investors have the best possible information available to them when choosing among financial services and products. Thus, while the basic functions of banks in making credit available, in providing safe investment choices (deposits) for households, and in processing payments are special, little is to be gained by insisting that banks always be the only type of entity that can provide such services.

The case of electronic money helps to illustrate this point. It remains to be seen how popular this form of payment will become in the United States, but the question of whether nonbank institutions should be allowed to issue electronic money is actively being debated in many countries. Some argue that issuing “money” is a special bank function and that electronic money should properly remain exclusively a bank product. For the time being, however, I, along with other policymakers at the Federal Reserve, have concluded that any decision to reserve the nascent market for smart cards and other forms of electronic money as a province for banks alone might well stifle both competition and technological innovation in this area. Thus, while most would agree that providing efficient payment media for small dollar transactions is a “special” function that banks currently perform, it does not follow that only banks should be allowed to perform the function.

As a corollary, there is not a “special” public purpose in constraining banks from competing in many other markets traditionally dominated by nonbank financial institutions. This is a subject that is especially topical in the United States because the country’s domestic banks are more restricted in the business activities in which they can engage than are banks in many other countries. The Federal Reserve has pushed to expand banks’ ability to compete with investment houses in underwriting securities, and the scope for U.S. banks to sell insurance-related products has also expanded recently.

*The third general aspect of banking that is often deemed special is the linkage between the banking system and monetary policy. This*
topic has spawned a vast economic literature. Without venturing into this thicket, it may suffice to note that through much of the 1990-94 period, growth of the broad U.S. monetary aggregates, such as M2, was quite at odds with historical relationships to nominal income growth. Perhaps the most important factor underlying this development has been a fundamental realignment of household financial assets away from bank deposits in favor of bond and stock mutual funds and other capital market investments. This "decoupling" of banking system deposit liabilities and nominal GDP became so pronounced during the first half of the 1990s that the Federal Open Market Committee (FOMC) downgraded the status of M2 as a policy variable. Today M2 remains only one of the many variables reviewed by the FOMC in the course of its policy deliberations.

Financial innovations and shifts in financial structure have affected the monetary aggregates in other countries and similarly complicated the implementation of monetary policy. Indeed, the difficulties in guiding monetary policy during periods of rapid financial innovation have been a factor contributing to greater experimentation among central banks with alternative targets, such as inflation or nominal GDP growth. Thus, one could argue that the growth of aggregate bank deposits or money is probably less "special" today as a policy variable in many countries than in the past.

Ironically, while the growth of bank deposits may be less special as a policy guide, the special role of the banking sector as the primary vehicle in implementing monetary policy in most countries remains unchallenged. Most central banks seek to achieve their objectives through some form of interest rate management. Control over short-term interest rates is achieved by manipulating the supply of central bank reserves available to satisfy banks' demand for reserves. Banks' demand for reserves is similarly influenced by central banks either directly by setting reserve requirements or indirectly by allowing only banks to access the payment system and then setting the rules regarding the management of their central bank accounts.

Finally, if banks are special, what does this imply about the proper stance of government vis-à-vis the banking industry? As I hope the previous comments make clear, regulatory and supervisory policies must recognize the dynamic forces at play in the financial sector. Such policies must promote and exploit the competitive process in order to foster efficient delivery of services while encouraging financial and economic stability. These objectives are not likely to be achieved by regulations that arbitrarily identify and rigidly segment bank and non-bank financial markets. Rather, the goal should be to establish rules of the game that provide proper incentives for financial institutions to
accurately assess and manage the risks inherent in their business decisions. Likewise, policymakers should foster reporting standards and information flows so that the consumers of financial services and products are as well informed as possible about the risks and returns of the financial services and products they buy. To the maximum extent possible, market forces should determine which bundles of financial services and products are provided by banks and other types of financial service providers.

As a final comment, sound macroeconomic policies are one of the most important ways to encourage the efficient delivery of financial services and the safety and soundness of financial institutions. Conversely, policies that result in significant macroeconomic imbalances frequently have serious adverse implications for financial institutions, and banks in particular. In reviewing the past two decades in the United States, for example, one cannot help but notice that the most severe problems in our banking and thrift industries during the 1980s stemmed from serious macroeconomic imbalances—including the accelerating inflation of the late 1970s and the costly but necessary steps to reverse that trend in the 1980s. By contrast, macroeconomic policies that encourage sustainable economic growth with low inflation—like those in recent years—have a strong positive influence on the overall health of the banking sector and other financial institutions as well.
Mr. Khandruyev inquired about the future of specialized banks, as opposed to universal banks. Mr. George said that their future would be decided by the marketplace. The implication for bank regulators was that they would need to decide on a case-by-case basis whether central bank support for specialized banks would be justified; the answer would be difficult. Mr. George added that all kinds of banks could be present in any given banking system; each kind of bank would have to be regulated according to its own characteristics, a situation that raised difficult questions. His personal forecast was that the specialized banks would remain in existence, not in the old sense of the term, but that some institutions might decide to act in a narrow segment of the market.

Mr. Marino asked Mr. George to comment on the failure of Barings Bank. Mr. George responded that the situation in the case of this bank had been crystal clear. The problem of Barings was not systemic, even though there were systemic difficulties at the time. There was no reason to assume that if Barings failed there would be a contagion effect, either because of the nature of the problem or because of other banks' exposure to Barings in the payment system. The Bank of England had to let Barings fail, to make known the true extent of the safety net it provided to banks. Letting Barings fail had done more to promote safe banking practices than any other action. Mr. Kelley added that the case of Barings also illustrated another point: the role of modern technology, which has become a great challenge for supervisors. Mr. Kelley said that it was necessary to emphasize the analysis of risk control system of the banks when supervising them, rather than merely the static analysis of past balance sheets.

Mr. Iltchev agreed with Mr. George's message regarding Barings' failure, saying that a problem of moral hazard appeared if a bank was held afloat for too long. Banks had to know that failure was part of the banking business. Timing of foreclosure was an important issue. In Bulgaria, if banks had been foreclosed when the first signs of troubles came up, the extent of the actions now needed would not be as large.

In answer to Amma Yeboaa, Mr. George indicated that the central bank used to provide liquidity through specialized institutions, but this was no longer the case. All institutions should compete in the marketplace without any special privileges. Mr. Kovacs commented that if a bank was closed, the value of its assets would decline; if no one was interested in buying the bank license as a growing concern,
the supervisor would need to be mindful of the effect of the closure on the value of the bank’s assets and on the social consequences for small relatively unsophisticated depositors.
Earlier presentations have covered the questions of what makes banks special; banks' central role in all financial systems; the forces of change in banking, such as innovation and liberalization; the features of such change, such as increases in the volume and complexity of transactions, the development of markets, globalization, and the blurring of institutional boundaries; and how market integration and globalization are taking place both functionally and geographically. These issues will not be repeated here; instead the objective will be to cover key issues for maintaining a sound banking system over time.

The aim of public policy should be to maintain the soundness of the banking system as a whole. A sound banking system is one in which individual banks with most of the system's assets and liabilities efficiently intermediate financial transactions, are solvent, and meet capital adequacy requirements. For the system to remain solvent and sound over time, individual banks must be profitable, well managed, and efficient. Soundness is a relatively easy concept to understand in principle but very difficult to identify in practice because of a lack of reliable financial data—a theme discussed below. Even if relatively reliable data for individual banks were available, there is no aggregate benchmark for measuring systemic unsoundness. If a system is to be kept sound, it must be assumed that it is sound at the outset. If this is not the case, which is often the reality, corrective action in the form of individual bank exit or restructuring is needed up front. If the problem is widespread, there is a case for systemic bank restructuring. The earlier and more comprehensively this is done, the faster the system will regain its soundness.
My topic is to maintain soundness during a period of change. As already has been pointed out by other authors in this volume, changes in banking—as well as in the real economy—are inevitable since the economies of most countries are in a process of change due to liberalization and market development. These changes are putting new strains on banking systems and also revealing weaknesses that may have been there for a long time. A study performed by IMF’s Monetary and Exchange Affairs Department in 1996 showed that three-quarters (133 of 181) of the IMF’s member countries had experienced significant problems in their banking sectors in the last 15 years. A subsequent study by Patrick Honohan showed that the incidence and problems process has been accelerating. Banking problems were virtually nonexistent in the 1950s but became more common throughout subsequent decades, especially in the 1990s. This does not mean that banking was more efficient in the earlier decades, but rather that it was a more protected industry (as were most economies) with comfortable enough profit margins to absorb the cost of various distortions and inefficiencies. Banking systems appeared sound, but were quite vulnerable to the subsequent forces of change and competition, which exposed the weaknesses in most national banking systems and led to significant problems.

This paper will focus on four separate areas for keeping a banking system sound: corporate governance, market discipline, official oversight, and macroeconomic management.

**Improve Internal Governance**

Banks are companies. It is not illegal to manage a bank poorly or even to let it fail, but it is illegal to operate a bank in disregard of laws and prudential regulations, and to conceal the true state of its financial position from supervisors. Too often, owners and managers of problem banks try to conceal the financial condition of the bank while they gamble for recovery (and experience indicates that such gambles seldom work). The primary responsibility for keeping individual banks sound lies with their owners and managers, who must have the right incentives in order to exert that responsibility. Owners must have their own money at risk in the form of capital. And when their capital is

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diminished or has been lost—either through operational losses or lending to themselves—the owners must lose their money and control of their bank. Owners should never be allowed to operate an insolvent bank.3

Most bank failures can be traced to poor management. Management should maintain the value (net worth) of the bank by ensuring that its business strategy is sound and risks are properly managed through adequate business practices and internal controls. In particular, it should see to it that the bank’s asset portfolio is sound and produces sufficient income; in this context it should be noted that the most common cause of bank failures continues to be credit losses. To do so, managers must possess a full understanding of the financial instruments and markets in which the bank does business, and be able to monitor and control the bank’s risks, as well as their subordinates’ activities. Managers are also responsible for accurately reporting the financial condition of a bank to its owners and supervisors.

**Maintain Strict Licensing Rules**

Deregulation often opens the banking market to competition from new banks and other financial intermediaries, both domestic and foreign. Licensing practices should be designed to ensure that banks (and other entities) entering the system are operated in a safe and prudent manner and do not compete destructively. For example, the entry of high-quality foreign banks can make an important contribution to the long-term soundness of a banking system.

The most important precondition for good governance is that banks are owned and operated by “fit and proper” owners and managers.4 The ownership structure of a bank, as well as its ties to financial or industrial groups, therefore, must be transparent—nationally and internationally. Furthermore, a bank must have sufficient initial capital (to finance start-up expenses and safeguard it against unanticipated developments), and this capital must be real—not borrowed—and

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3 The incentives for sound banking are often absent or diluted in state-owned banks—and the only solution may be privatization. But private ownership in itself is no guarantee for good governance. In fact, one of the most common causes of banking problems is privately owned banks that are used as captive sources of finance for their owners, other insiders, and related enterprises—not to mention cases where private owners’ principal motivation for owning banks is to drain assets for private gain.

4 Fitness includes characteristics such as competence, professionalism, and experience, while propriety includes honesty and integrity.
legally acquired. If the licensing conditions are not met initially, the supervisors must have the authority to reject the application—or if the conditions are not met subsequently to revoke the license later. Supervisors should also be required to approve, and have authority to reject, any changes in controlling ownership interests and top management of banks.

**Be Aware of the Strains of Deregulation**

Deregulation enables banks to enter into new and unfamiliar areas of business, where they may incur increased exposure to credit and various market risks. At the same time, economic and financial deregulation often lead to increased financial savings and may leave banks flush with liquidity. Prior to deregulation tightly, regulated banks typically lack the necessary credit evaluation and risk-pricing skills to deploy available resources effectively. Overreliance is often placed on collateral and rising asset prices, rather than on projected cash flows for repayment of a loan. There have been numerous cases where banks after deregulation have entered into an almost mindless competition for market shares without regard for risks—and where traditional prudence and control functions (like separate back-office operations) have been disregarded in the rush for profits. The authorities should be aware of limitations in the skills of bank managers and use available prudential and monetary measures to limit the scope for risk taking.

**Ensure Quality of Data**

The quality of data is a very special problem for banks, because most of their assets are loans, which are not traded and have no objectively determined market value. When a loan is nonperforming, it becomes impossible to determine an exact present value of the uncertain future cash flow that it represents. The value of collateral may also be highly uncertain, especially if asset values are unusually high. The valuation of a bank’s assets is principally the responsibility of its managers, who typically have the best information to make the necessary estimates. If managers have incentives to conceal the real value of a problem loan, for example, in order not to lose their jobs or their control of their bank, they are likely to do so—especially if they can do so without impunity. It must be recognized that loan valuation rules are prone to manipulation by banks, which—especially when they have problems—typically overstate asset values, showing them at historical book value, and report paper earnings even when they are incurring
economic losses. Losses can also be hidden in off-balance-sheet items, in affiliated companies, in offshore units or sometimes not included in the banks' books at all. Misleading accounting, loan valuation, and outright fraud can be difficult to detect in time and will require effective on-site inspection, external audits, and other types of monitoring.

This data problem is not easy to overcome. A strengthening of accounting rules, especially regarding valuation and income recognition would help. However, particular attention should be paid to criteria for loan classification and provisioning, and suspension of interest accrual on nonperforming loans. Banks should have incentives to properly provide for classified loans, including full tax deductibility for specific provisions (as discussed elsewhere). Furthermore, there is a need to closely coordinate accounting and loan loss provisioning rules and practices for financial entities both nationally and internationally. Without standardization, the much heralded—and most essential—concept of consolidated supervision of financial groups will not be very meaningful. Needless to say, if poor recording and inadequate loan provisioning and income recognition allow creative accounting to the point where financial statements are misleading, prudential ratio analysis also loses its value. There are numerous examples of cases where inadequate loan loss provisioning has made capital adequacy analysis meaningless; as a vault bank capital becomes the last indicator of problems.

The lack of reliable banking data clearly is the "Achilles heel" for effective oversight in banking. This applies not only to oversight by markets and supervisors, but also to oversight by owners, particularly in cases where ownership is widely dispersed and the bank is controlled by its management. The lack of hard data on banks' financial condition also facilitates supervisory forbearance and makes the supervision process vulnerable to political influences. Managers therefore must be held strictly responsible for the accuracy and prudence of their banks' accounting and reporting; extending personal liability to bank managers (as in the case of New Zealand) could add incentives for them to improve the data. In cases of gross misrepresentation, there should be meaningful punishment, and, in cases of outright fraud, owners and managers should be subject to criminal prosecution and barred from further involvement in the financial sector.

**Strengthen Incentives and Market Discipline**

The market is expected to reinforce banks' incentives to operate safely by driving out poorly managed and unsound banks, thus pre-
venting problems in individual banks from growing, and in the process contaminating other banks and the system as a whole. Private markets impose discipline through creditors, who require higher interest rates or withdraw resources from weak banks. Such withdrawals need not be an abrupt process since they typically involve the gradual transfer of funds from weaker into stronger banks, and ultimately the exclusion of weak banks from the interbank market. Market discipline requires that creditors have funds at risk in the market (that is, their claims are not to be fully protected) and have information about the banks in which they have placed their funds. Large and well-informed creditors, including other banks, typically are most effective in exercising market discipline because they have more resources with which to monitor and influence banks. Public sector creditors should act as any other large, well-informed creditor. For market discipline to work, three ingredients are needed: disclosure, limited official financial safety nets, and a strict exit policy.

**Improve Disclosure**

Markets require prompt and reliable information in order to work, and disclosure of such information should be the responsibility of the banks. As mentioned before, banks, especially when in trouble, have incentives to withhold or distort information. When banks form part of larger financial groups, they may deliberately hide losses in other corporate units and not report a true consolidated position so that when information is ultimately disclosed, the opacity of banks’ actual financial condition limits the ability of markets to rationally assess the information disclosed. This is the case even in the most advanced markets with the best external auditors, rating agencies, and other market analysts. In addition, disclosure of grossly misleading financial statements tends to implicate supervisors, who are expected to be informed and prevent the public from being misled.

Every effort should be made to harness the market to put pressure on owners and managers to disclose reliable information. External auditors should be forced to play a greater role, for example, by focusing more on the adequacy of internal control and audit procedures, and on forward-looking estimates of the payments capacity of major borrowers rather than on backward-looking traditional audits. It is also necessary to have harmonization of auditing standards and practices, both nationally and internationally. In addition to auditors, the support of other market players can be sought to improve data quality, for example, for credit-rating agencies and other market analysts to express opinions about the soundness of banks. An interesting exper-
iment has just recently started in Argentina, where larger banks are now required to issue a certain amount of bonds in the market (in proportion to their deposits) in order to force market agents to rate and price such bonds and thus provide an indication of the perceived soundness of the issuing bank.

Disclosure could be extended to information outside traditional financial statements, for example, to data on nonperforming loans or data on banks' or financial groups' exposure to major borrowers. There is also important qualitative information to disclose, especially information on the ownership and corporate structure of banks and groups. Finally, supervisors often are against disclosure, especially if the banking system is weak and disclosure could lead to an outright crisis; in this case, the solution is to restructure the banking system so that it can withstand the necessary disclosure.

**Limit Scope of Safety Nets**

If it is known or expected that creditors (and owners) of banks that run into trouble will be “bailed out” by the government or central bank, market discipline will not work. Overly generous official safety nets in the form of depositor guarantees and lender-of-last-resort facilities lead to moral hazard and adverse selection, and provide incentives for poor internal governance and excessive risk taking. Therefore, such safety nets should be strictly limited. Deposit guarantees, where appropriate, should be limited to basic consumer protection and not cover larger depositors and creditors, including other banks. This subject is covered by Gillian Garcia later in this volume (see Chapter 21) and will not be covered here.

Lender-of-last-resort facilities are typically provided by the central bank but can also be provided by the government or public sector entities (or other banks). The intent of most such facilities is to provide temporary support to illiquid but solvent institutions, typically at a penalty rate and against collateral, and to deny support to insolvent ones. In practice, however, lenders of last resort have tended to act on the generous side by supporting insolvent banks and allowing them to remain open artificially (thus undermining market discipline)—this clearly is a form of supervisory forbearance. Central banks and supervisors often claim to have difficulty distinguishing illiquid but solvent banks from insolvent ones (due to poor data), and believe that cutting off a bank from last resort support could possibly cause a systemic crisis. This argument is too often used as an excuse and a convenient way to postpone difficult decisions to intervene in and close banks. At the same time, it must be recognized that a decision to deny liquidity
support to a bank indeed could trigger confidence problems and systemic effects, especially in a generally weak banking system.

Lender-of-last-resort support can be justified to individual banks on a strictly short-term basis, especially where the local money market is very thin, and in cases of truly systemic illiquidity (such as the episode in Argentina in 1995). A preannouncement of the rules for the last resort lending mechanism is useful. The experience shows that banks with major or protracted liquidity problems are invariably also insolvent; for the lender of last resort to keep them alive only leads to additional distortions and costs. The lender therefore must know (on the basis of information from the supervisors) which banks are approaching insolvency and be careful not to provide banks with solvency support; if such support is provided, that should not be done by the central bank but rather by the government.

Uphold a Strict Exit Policy

As mentioned previously, the exit of weak individual banks is critical for the maintenance of a sound and competitive banking system. The prolonged operation of unsound banks not only permits them to spiral into deeper insolvency (and higher resolution costs), but also causes damages to competitors through destructive market practices, which might enable short-term survival but are not sustainable. Experience has shown that unsound banks are always in worse condition than their financial statements indicate, and that the least intrusive, least expensive, and most efficient way of maintaining a sound banking system is to force the early exit of nonviable banks. A strong exit policy for banks (closure and liquidation) is at least as important for an efficient and competitive market system as entry policy, if not more important—although more attention is normally paid to the latter.

Exit can be brought about by market forces or by supervisory action. In most countries there are few market participants (creditors) that are capable of forcing exit, and the legal and political systems may prevent creditors’ attempts to bring about the exit of unsound banks. An exit imposed by market forces may also be a disorderly

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An area closely related is the payments system, which can allow banks to receive automatic overdrafts, become overextended, and thus contaminate each other. Such risks can be reduced by making transactions as irreversible and simultaneous as possible or by introducing a system of real-time gross settlement for large transactions and explicit loss-sharing arrangements and bilateral exposures limits for high-volume/low-value payments.
process since exposed creditors will scramble to cover their positions, and the result may be damaging to depositor confidence, which and could affect other solvent banks. Thus, there are limits to how much reliance can be placed on market discipline. Official mechanisms are required to ensure that individual banks fail with minimal systemic impact. For example, the supervisors should be empowered to smooth the exit process by closing a bank that is experiencing a run on its deposits and put in place an orderly restructuring or liquidation process.

Orderly bank failures should be viewed as powerful reminders to managers of other banks that the market system works and their banks also need to remain sound to stay in business. Strong exit policies, including intervention when a bank is seriously undercapitalized but before it is formally found insolvent, will require a change in attitude in many countries. At present, bank closures are often viewed as political or supervisory failures, and authorities go to considerable lengths to avoid bank closures. The experience shows that this is an area where discretionary approaches have failed and rule-based policies may be needed. An example of rule-based policy is the prompt corrective action regime now required by law in the United States, which stipulates that there be supervisory intervention whenever a bank becomes seriously undercapitalized. In general, bank closures require a strong legal framework in support of supervisors. Early official intervention requires that the supervisors have the authority and ability to act outside standard corporate bankruptcy procedures and without prior political or court approval. Banking laws should be revised to provide the supervisors with such authority.

Finally, let me stress that what I have said about limiting official safety nets and about bank exit is applicable to individual banks in a relatively sound banking system. If the entire banking system is in distress, such measures will not be appropriate; instead, system-wide approaches and restructuring strategies will be needed.

**Strengthen Official Oversight**

Official oversight in the form of prudential regulation and supervision seeks to compensate for failures in internal governance and market discipline. But, as mentioned previously, the objective of oversight is not to guarantee the survival of every bank but rather to ensure that the banking system as a whole remains sound. Laws and regulations provide the rules of the business and also seek to prevent destructive and fraudulent practices. Supervision ensures that rules
are enforced, that banks are operated prudently, and that corrective measures are taken when needed.

**Adopt Effective Regulatory Framework**

Most countries have adopted an extensive legal and regulatory framework for the prudent entry, operation, and exit of banks. To be effective, such frameworks should as far as possible rely on and reinforce banks' internal governance structures and market discipline. As discussed, the most important prudential requirements in support of internal governance are those requiring that owners to be fit and proper and that they put their own money at risk. Capital adequacy is increasingly defined in relation to risk-weighted assets and off-balance-sheet items, with more capital required against higher risk (following the Basle Capital Accord). Effective measurement of capital requires proper evaluation of banks' asset quality and meaningful risk weights. Until this has been done properly, analysis of capital adequacy ratios should be made with extreme caution.

Other prudential regulations can help manage risks by limiting the credit, liquidity, interest rate, foreign exchange, and other market risks that banks assume. Regulations may set specific limits for key indicators (such as credit to insiders and single borrowers, liquidity mismatches, or open foreign exchange positions). Alternatively, regulations may explicitly permit banks' internal risk management systems to set the appropriate level of exposure to market risk and complex financial instruments, such as derivatives, but this is feasible only in a few banks where such systems are adequate. Exit rules have already been discussed.

Finally, sound banking requires a credit culture supported by a legal system that facilitates the enforcement of financial contracts, loan recovery, and realization of collateral. This may require improvements in corporate, property, and bankruptcy laws as well as strengthening of administrative and judicial structures. In addition, the governing political structures must respect legal procedures and not interfere in the administration of laws and regulations, including the enforcement of loan recovery.

**Improve Supervisory Autonomy and Authority**

Regulations are relatively simple to adopt, but difficult to implement. To effectively oversee compliance with regulations, the supervisory authority must have sufficient independence, authority, and competence. The supervisory authority must also have sufficient pow-
ers, established by law, to carry out its functions, including to regulate, request data, conduct on-site examinations in order to verify banks' data, report, and assume appropriate loan provisions, restrain unsound practices, suggest corrective measures, deny or revoke licenses, and—where needed—remove managers and force the exit of banks. Supervisory actions are often politically unpopular. But supervisors must be able to act against banks without the delays and pressures that often result from a need for political approval; they must also have legal protection for discharging their duties. The independence from political influences is a particularly thorny one as it requires an institutional structure that will combine independence with accountability.

Supervision covers a range of increasingly sophisticated and complicated activities and requires adequate human and financial resources. Supervisors must verify banks' compliance with regulations and the accuracy of their reporting. And they must have the capacity to assess the fitness and propriety of owners of banks; the adequacy of procedures for loan valuation and loan loss provisioning, and the calculation of banks' net worth; the adequacy of management and internal controls and audit procedures of banks (internal risk models, where applicable); and complex consolidated financial statements. In addition, they must be able to analyze relevant macro and market information and to evaluate behavior that may heighten systemic risk. To accomplish these increasingly demanding tasks, the supervisory authority must be able to attract and retain employees of the highest caliber, and to provide them with the necessary remuneration, training, and support. It typically takes several years to establish effective banking supervision.

**Coordinate National and International Supervision**

In most countries, different parts of financial conglomerates (banks, securities, insurance, pension funds) are regulated and supervised by different national authorities. It is important that such regulation and supervision be properly harmonized and coordinated in order to reduce the scope for regulatory arbitrage and inefficiencies. The need for consolidated supervision of conglomerates is a strong argument for an umbrella-type supervisory organization incorporating all financial supervision "under one roof." In countries with limited institutional development and where banks remain the dominant financial intermediaries, the location of supervision within the central bank seems preferable.
Similarly, regulatory standards and supervisory practices need to be harmonized internationally because this not only facilitates consolidated supervision and information sharing among supervisors, but it also improves efficiency and can bring important additional discipline to bear on national regulatory and supervisory structures. Already there have been important achievements as a result of the work of the Basle Committee, and the work between bank, security, and insurance supervisors internationally. However, there are several important areas in which coordination has been very slow, even among banking supervisors. These include accounting standards, loan classification and provisioning rules, official safety nets, and exit procedures. Substantial additional efforts are needed to strengthen and harmonize national prudential frameworks and thus strengthen the global financial system.

**Strengthen Macroeconomic Management**

The soundness of a banking system largely reflects the health of the economy in which it is operating. A stable macroeconomic environment, conducive to efficient savings and investment decisions and healthy economic growth, is a prerequisite for sound banking. If an economy is experiencing a slowdown or decline in growth or other adverse macroeconomic shocks, its banking system will also be affected. This section will focus on three areas in which macroeconomic policies should support a sound banking system: financial stabilization, fiscal transparency, and supportive, monetary policy.

While financial stabilization generally has a positive impact on the economy as a whole, it can pose transitional problems for the banking system. In choosing the mix of macroeconomic policies, their impact on the banking system therefore should be considered. For example, a sharp decline in inflation (while beneficial over the medium term) may expose weaknesses and have negative short-term effects on the banking system, since banks and their customers need time to refocus their business toward traditional banking in a low-inflation environment. Requirements of exchange rates and restrictive monetary policy measures may result in excessively high real interest rates that may be damaging to banks and their customers. However, such constraints should not be exaggerated and used as excuses for postponing financial stabilization goals; early systemic bank restructuring would probably be called for in such a situation. When monetary or exchange rate policies are constrained by weaknesses in the banking sector, additional fiscal efforts may be necessary.
As soon as problems in individual banks become known, they should be dealt with quickly and transparently, since supervisory forbearance tends to make the government financially coreponsible. This applies both to state-owned and private banks. The experience has been that delays in dealing with banking problems always increase resolution costs. The lack of early action is often due to political considerations. The unreliability of banking data makes it relatively easy for politicians and supervisors alike to delay action in the hope that things will get better, or just leave them for a subsequent government to deal with. If it is decided that a bank is to be rescued or restructured, it must be quickly determined who will pay for the required recapitalization.

It is essential that banking system problems not be ignored in fiscal policy formulation but rather that the government’s full costs, including contingency costs, be given full consideration as soon as they become apparent. If such contingencies are transparent, there will be more pressure for timely action to deal with the problem, which will tend to keep the banking problem from spreading to other banks and thus keep the system sound.

The use of banks for quasi-fiscal purposes is one of the most common causes of bad lending and solvency problems and must be avoided. By diluting banks’ responsibilities, such interference distorts the incentive structure and leads to implicit fiscal contingency liabilities. To the extent such quasi-fiscal transfers reflect national priorities, their full cost should be included transparently in the government budget.

Many countries liberalize their financial sectors as part of a broader program of deregulation and market development, often together with capital account liberalization. Unless properly overseen, such liberalization can unleash destructive forces for the banking system, such as overly rapid growth of bank assets, overindebtedness, and asset-price bubbles. Such developments are often associated with private capital inflows and consumption sprees and can be expected to increase banks’ exposure to risks for which they are not prepared. Appropriate reforms to strengthen prudential control would be needed but can seldom be implemented in time; therefore, additional macroeconomic action could be needed.

For example, capital account liberalization allows banks greater access to foreign interbank and capital markets, which can provide more stability. But that can also be a source of volatility, since any adverse developments or changes in expectations can abruptly cut off banks’ access to these markets. A sudden loss of access could trigger a systemic crisis. Large private capital flows—and especially swings
in such flows—have become major challenges for central bankers and bank supervisors in many countries. The impact of such swings is in many ways similar to the impact of cyclical movements in the domestic economy—a rapid growth of liquidity in the case of capital inflows (a domestic upswing) and a contraction in liquidity in the case of a capital outflow (a domestic downswing). Unless the liquidity growth in the upswing is sterilized, there is pressure for bank credit to grow rapidly, and experience shows that credit quality tends to suffer in such situations. Conversely, when liquidity tightens—unless offset by a monetary (re)injection of liquidity—banks would be forced to call in credits, which would expose underlying weaknesses in their loan portfolios. This could cause individual banks to fail and, if widespread, could result in a systemic crisis. This scenario is particularly worrisome if the system is known to be weak at the outset.

The design of both prudential and macroeconomic policies, therefore, will need to consider the banking system's capacity to intermediate credit and capital flows effectively. Prudential measures should seek to foster a strengthening of credit and other risk management capabilities in banks, supported by strictly enforced prudential regulations. But there is a limited scope in the short run issuing prudential measures, such as stricter collateral requirements, cease and desist orders, and credit ceilings for prudential purposes. Monetary management would need to be supportive by limiting excessive credit expansions and contractions in order to contain the possible adverse effects on asset quality and banking system soundness. This would be consistent with long-term monetary stability.

**Concluding Thoughts**

Banks, and other market participants will always be changing and innovating and testing the limits of legality and prudence—and the extent of the respective government's generosity. Regulators and supervisors will always be a few steps behind, trying to adapt rules and supervisory procedures to the latest financial products and market developments—but they will never be able to "out-engineer" the financial engineers. Innovation and liberalization have made it easier for banks to circumvent existing regulations and blind supervisors to their risk taking by engaging in complex offshore activities, especially where conducted through derivative instruments.

As market forces are growing in prominence worldwide, the traditional emphasis on official oversight and safety nets therefore must shift toward increased reliance on incentives and market discipline. At
the same time, it must be recognized that even in the most advanced market economies there are failures in internal governance and market discipline and that prudential regulation and supervision still have important roles to play to safeguard the soundness of the banking system as a whole. Also, the perception must change of what banking supervision can and should do—it is not failproof; in fact, occasional individual bank failures should be seen as normal and perhaps even as the proof that supervision is working.

This leads me to a final observation: transparency is key in banking. Public policies must be explained: for example, the objectives of supervision; the scope and role of safety nets and mechanisms; the conditions under which a bank is required to exit. In most countries, there is a need for a major educational effort directed at market participants, public policymakers, politicians, and the news media. Policies cannot work unless properly explained, enforced, and implemented. It is reassuring to see that this process is well under way. Unfortunately, too often some sort of crisis is still needed in order to instill the necessary urgency for supervisory action.
In discussing how to keep the banking system sound, Lindgren focuses on four basic areas: bank governance, market discipline, official oversight, and macroeconomic stability. The first three elements are much in the domain of bank supervision, while the last one may be regarded as a prerequisite for banking soundness. In my discussion, I will comment on the first three from the standpoint of a banking supervisor.

Lindgren stresses that the primary responsibility for keeping individual banks sound lies with their owners and managers, and his emphasis on bank governance is well placed. It is generally acknowledged that poor management is the leading cause in most bank failures. In bank supervisors' language, bank governance is the first line of defense against risks. After all, no outside forces, either market discipline or official supervision, can substitute for bank governance. However, market and official oversight can help foster good bank governance. At a minimum, they should not serve to undermine bank governance. Unfortunately, too often there are forces that are not wholly conducive to providing the right incentive for good bank governance. For instance, certain journals still rank international banks by the volume of their total assets rather than their overall performance, thus providing stimulus for banks to scramble for market share at the expense of prudence. And inappropriately designed lender-of-last-resort and deposit protection schemes more often than not give rise to moral hazard and adverse selection problems, particularly to those responsible for bank governance. In addition, while fit-and-proper testing of owners and managers is a must in the licensing process, it could provide inadequate incentive if it were made a one-time affair. It is more important to ensure that owners and managers remain fit and proper throughout the banks' operation. One way of achieving this is to have in place clearly specified regulations barring those with a track record of having ruined a bank—either through noncompliance, outright incompetence, or fraud—from employment in the financial industry for reasonably long periods or even for life. I would argue that in the case of state-owned banks, whose managers care more about their positions than profits, such measures add teeth to the fit-and-proper test, although they are expected to work for private banks as well.
Implication of Data Problems

Lindgren brings to our attention the implications of data problems. Owing to the inherently opaque nature of banks’ credit data, outsiders are not able to monitor banks effectively. Adding to this information asymmetry are the negative externalities of a bank’s failure. The cost to society is invariably greater than that to the bank itself. These effects combined carry the seeds for market failure in disciplining banks, thus effectively establishing the public-good nature of banking supervision. And it is well known that in order for the market to work, a well-developed legal framework and clearly defined accounting standards must be in place, just to mention the most important prerequisites. Lindgren is obviously mindful of the limitations of the market in disciplining banks and in forcing exit of insolvent banks, for he recognizes that even in the most advanced market economies there are failures in internal governance and market discipline and that prudential regulation and supervision still have important roles to play to safeguard the soundness of the banking system as a whole. For instance, public disclosure of information, while helpful, may not work if certain conditions are not met. I will come back to this theme later.

This leads to the role of official oversight, which, if appropriate, can complement bank governance and market forces in maintaining a sound banking system. In a system where the majority of banks are not sound to start with and market forces are not developed, official oversight carries a greater share of responsibility than otherwise. Care must be taken, however, not to overregulate or to engage in more stringent supervision than necessary. And in the process, official oversight should try to work through banks’ internal governance and market forces by providing the right incentive structure and avoiding moral hazard and adverse selection problems. These are so well covered by Lindgren that it is not necessary to belabor them.

It is obvious that in order for all forces to work toward maintaining the soundness of the banking system, there must be proper incentives. This is the common theme throughout Lindgren’s paper, even though sometimes implicitly.

Having dealt with those general issues, it is worthwhile to comment on a few specific matters raised by Lindgren, again from the perspective of a bank supervisor. My purpose is not to raise a dissenting voice but rather to add balance and to reiterate some key points made by Lindgren.

Critical Issues

First, I share the view that a strict exit policy is as important as, if not more important than, an entry policy, and that the orderly exit of
unsound banks is an effective weapon in the arsenal of bank supervisors. I can testify to this argument, having just witnessed the positive waves caused by the closure of a large financial institution in China. The very possibility of failure removes a long-held belief that no state-owned financial institutions would be allowed to go under. However, an important assumption of Lindgren is that the banking system is sound to start with. While this assumption may be realistic for most advanced market economies, it is a luxury for the emerging-market economies in general, and those in transition in particular. For them, the thorny issue is how to get on to the path of a sound banking system. In such cases, the right approach is to launch bank restructuring, which is a topic beyond his paper and this seminar. But the general issue of forbearance remains valid for our discussion. One can neatly argue in favor of prompt corrective actions against insolvent banks, for it is simple logic that eliminating unhealthy ones would make the average population healthier. However—earlier in the seminar when Mr. Mehran and I were indulging in the medical analogy—the banking profession is not about terminating patients’ banks, it is about how to cure them. And in reality, the distinction between insolvency and illiquidity is blurred by data problems, so one runs into the danger of forcing solvent but illiquid banks into bankruptcy. The argument that to allow insolvent banks to continue operation would only multiply the resolution cost in the long run is a valid one, but in practice this is easier said than done. To carry the medical analogy further, amputating a limb that may be saved is worse than the pain of letting a wound heal gradually. In the context of a transition economy, some banking problems can be traced to inappropriate government policy, such as unjustifiably heavy taxation on banks and inadequate loan loss provisioning rules, or to the customer base—such as the state-owned enterprises. Without addressing these deep-rooted causes, restructuring banks would be a recurring process, for it would be like scratching the boot to relieve an itch on the leg. Inevitably, the answer to the question of whether or not a bank should fail involves a value judgment.

Second, the issue of disclosure has so far been the most controversial of all subjects in banking supervision. Lindgren argues forcefully that effective market discipline requires that financial information be disclosed promptly and that it present a true picture of the value of the bank, based on generally accepted accounting standards and on proper valuation procedures for loan portfolios and other assets and liabilities. I read this as a highly qualified statement. Without generally accepted accounting standards and proper valuation procedures for loan portfolios and other assets, disclosure will not present a true picture of the value of a bank. Particular care must be taken in handling
Comment

Disclosure issues in the case of state-owned banks in transition economies. The unwavering confidence of the general public in such banks is a valuable intangible asset. Inappropriate disclosure may destroy this confidence and even precipitate bank failures. Even if the disclosed information is true, it may be misinterpreted owing to the lack of ability on the part of the general public to interpret such information. Here again one runs into a public good—the processing of certain bank information may incur economies of scale and therefore is best performed by bank supervisors on behalf of the public. Lindgren’s dissatisfaction with the track record of external auditors in disclosing bank problems reinforces this point, but this is not to say that disclosure should be abandoned altogether. Certain qualitative information—such as a bank’s license and credit rating, if any—can and should be disclosed, just as certain aggregate information should be disclosed by the supervisors for peer comparison. Disclosure is a double-edged sword and can work miraculously if skillfully used.

Third, I could not agree more with Lindgren when he advocates the need for strong banking supervision. He rightly says that the supervisory authority should have sufficient capacity, authority, and independence. Now that risk-based supervision, rather than the traditional concentration on compliance, is seen as crucial in maintaining bank soundness, a strong and competent banking supervisory authority is extremely important in all types of economies. With respect to China, this means streamlining the supervisory structure, compiling prudential regulations, reinforcing the traditionally strong on-site examination army, and building up a modern off-site surveillance system. But above all else, the training and retaining of qualified bank supervisory staff is an urgent and most challenging task. After all, as was said during the recent ninth International Conference of Banking Supervisors, bank supervision can be only as effective as the supervisors.

Let me conclude by saying that the credibility issue is a very real one for bank supervisors, just as it is for monetary policy. As in the case of macroeconomics policy, optimal supervisory policy is “time-inconsistent,” to borrow academic jargon. Even if announcements are made ex ante that unsound banks will not be bailed out by the authorities, market participants know that once a bank gets into trouble, it is not optimal for the authorities to stick to the preannounced policy. This gives rise to moral hazard problems, and it points to the need for rule-based supervision and for taking discretion power out of the hands of the bank supervisors to the extent possible. Recognition of the credibility issue should help bank supervisors think twice before reneging on their commitments and should strengthen their determination to build up a track record.
Recent financial and exchange rate crises have highlighted the potential for derivative products to have macroeconomic consequences and to obscure the meaning of capital account categories in balance of payments data. Although the existence of large off-balance sheet derivative positions will not necessarily trigger a financial crisis, derivatives can affect the magnitude and dynamics of a crisis. Sales of a weak currency by domestic institutions to meet margin calls against offshore derivative positions, the dynamic hedging of derivative positions, expanded opportunities for hedging and speculation, and the general unification of markets that derivatives permit certainly exacerbated both the turbulence in Europe’s exchange rate mechanism and Mexico’s peso crisis. Moreover, the increased opaqueness of the national balance sheet—even to authorities—brought about by cross-border derivative usage causes crises to evolve in unexpected directions, sometimes defying classical remedies.

This paper reviews the ways that derivatives can affect macroeconomic stability—crisis dynamics, miscalculations of market risk, and excessive risk taking by the financial system through evasions of prudential regulations. From the IMF’s own operating perspective, we describe the possible implications of derivatives for interpreting capital account data. Finally, the paper outlines how authorities can adjust to the existence of derivatives in their policy formulations and determine how to increase official awareness of the presence of derivatives in their markets. Extensive examples from Mexico’s recent financial crisis are used to illustrate some of these points.
It is not easy to adjust surveillance operating procedures for the existence of derivative products, and it has proven difficult for regulators even to determine the amounts outstanding at any given time. The triennial surveys undertaken by the Bank for International Settlements (BIS) provide only snapshots of the amounts outstanding in the industrial countries and financial centers and only for broad categories of products. They do not indicate the risk position of the individual institutions that operate in this market. Indeed, regulators have changed their approach from trying to determine and explicitly control the position of key banks that operate these markets to one of allowing banks to operate their own risk models and relating capital coverage to value at risk. This may be sound for microprudential purposes, but it does not help a country determine its own aggregate risk position.

**Extent of Derivative Markets**

A recent BIS survey indicates that the notional value of over-the-counter (OTC) derivative products outstanding was $47 trillion in March 1995, about 55 percent of which were cross-border transactions.\(^1\) Most of this amount consisted of simple interest rate products, such as swaps, and most cross-border transactions occurred between industrial countries.\(^2\) For other derivative products, there are, nevertheless, large notional values outstanding in absolute terms—equity-based products and structured notes and options, which may be quite complex—and these are increasingly used in key emerging-market countries.

Specifically, of the $47.5 trillion in OTC notional values, 61 percent was in interest rate instruments, and 37 percent was in foreign exchange instruments, including outright forwards and swaps. Equity contracts amounted to 1.25 percent, and commodity-related instruments were 0.75 percent of the overall notional value. Exchange-traded contracts outstanding, net of double counting, amounted to


\(^2\)Thus, the problem of inferring market risk from balance of payments data applies especially to the positions of industrial countries. Academic investigations into the lack of cross-border portfolio diversification based on capital account data are fatally compromised by this gap in the data.
$8 trillion, almost all of which were interest rate contracts. Gross market values (replacement costs) were $2.2 trillion for OTC contracts.

Of the interest rate products, 50 percent were cross border, while 56 percent of foreign exchange products were cross border. For equity products, cross-border position data are not reported by the BIS. The market or replacement value of outstanding derivatives is about 4.6 percent of the notional value. For comparison, the total stock of international securities in the OECD countries was $26.3 trillion, and international banking assets, excluding securities holdings, were $8.3 trillion in March 1995.

Small Smorgasbord of Noteworthy Derivative Products

While the list of exotic derivatives products grows almost daily, most derivatives outstanding are quite simple, consisting mainly of forward contracts, swaps, and basic options, whose notional values are indicative of the magnitude of the market risks that are being acquired or hedged. Structured notes, however, are implicitly highly leveraged products whose notional values generally underestimate significantly the magnitude of the risks taken. A brief listing of products important in the Mexican currency and financial crisis, for example, would concentrate on a few types of swaps and structured notes; these products in their Mexican manifestations illustrate the important connection to crisis dynamics. Nevertheless, they are generally available in offshore OTC markets for a wide variety of other emerging markets.

A generic swap of yields is simply an exchange of the percentage return on one type of asset for the percentage return on another, multiplied by a predetermined notional value. The swap may involve a periodic exchange of yields of a fixed period of time and settlement of the net amount due. Specifically, for a given currency, an interest rate swap involves an exchange of a fixed interest return for a floating return, or perhaps one floating interest rate for another. An equity swap generally involves a periodic exchange of the return on a given equity or equity index, including dividends and capital gains, for

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3See BIS, "Central Bank Survey," p. 23, Table D3.
4Notional amounts do not reflect the payments obligations. They do reflect the price exposure in the underlying markets and they are useful for comparison with the underlying for the amounts outstanding. See BIS, "Central Bank Survey," p. 24.
some interest yield, multiplied by a notional value in a given currency. A structured note involves a deposit of a given amount of principal by the buyer with the seller. The payoff of either interest or principal is set as a function of some underlying market value, such as an exchange rate or interest rate.

In the Mexican context, these generic products took several forms, many of which were designed to circumvent various domestic prudential regulations. Similar products play the same role of avoiding regulation or taxes in other emerging and industrial country markets. They also are means of avoiding capital controls in the form of taxes on inflows or outflows involving individual transactions.

**Tesobono Swaps**

Tesobono swaps were offshore derivative operations used by Mexican banks as a means of leveraging tesobono holdings. In a tesobono swap, a Mexican bank would receive the yield earned on tesobonos and deliver LIBOR plus, multiplied by a notional amount of dollars. By this operation, Mexican institutions could circumvent regulations of the Comisión Nacional de Valores that prevented the holding of financial assets on margin in Mexico. Industry sources in Mexico report that about US$16 billion of tesobonos were involved in tesobono swaps at the time of the devaluation (December 1994).7

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5 Interest and equity swaps do not involve initial and final payments of principal or notional value, although the counterparty with the greater credit risk may have to deliver some collateral. Currency and foreign exchange swaps do require initial and final delivery of principal. A foreign exchange swap, generally a very short-term deal, is a combination of a spot sale of currency and a forward purchase—it packages in a single deal both foreign exchange market legs of the familiar interest rate parity arbitrage operation. A currency swap similarly requires an initial and final exchange of principal amounts, but it is of longer maturity and involves periodic exchanges of interest on the principal amounts in the two currencies.


7 About US$29 billion of tesobonos were outstanding at the end of December 1994. About US$16 billion of outstanding tesobonos on December 19, 1994 were held by "foreign addresses."
The leverage involved in tesobono swaps can be most readily examined by considering first the nearly equivalent (in terms of payoff) tesobono repurchase agreement. As an example, consider a New York investment firm that is willing to lend dollars for one year against tesobono collateral. The firm engages in a repurchase agreement with a Mexican bank to buy tesobonos at some agreed price to resell them in a year at the original price plus a dollar interest rate. Suppose the dollar rate is LIBOR plus 100 basis points, with the interest rate to be settled and repriced quarterly.

In 1994, the typical tesobono repo had a maturity of one year and required a margin between 10 and 20 percent, which produces a leverage of between 9/1 and 4/1. The Mexican counterparty would, for example, buy $500 worth of tesobonos in Mexico and sell them to the New York firm for $400. The tesobonos would be delivered to the New York firm through its custodial account in Mexico. Note that the tesobonos would then have been held in the “foreign address” category, although their ultimate holder had a domestic Mexican address. The gain to the Mexican bank is that it pays LIBOR plus 100 basis points to finance tesobonos that may pay the equivalent of LIBOR plus 300 basis points. The gain to the U.S. lender is that it gets to place dollar funds at LIBOR plus 100 basis points against good collateral.

When the crisis arrived, the dollar market values of tesobonos suddenly fell. This resulted both indirectly from rumors that capital controls might be imposed and through the failed auction of January 1995 in which the government accepted an unfavorable yield. The fall in market value reduced the value of the collateral and triggered margin calls to deliver dollars or close out the positions.

Suppose, for example, that the typical tesobono fell by 15 percent in dollar value, to the extent that it could be valued at all. For the tesobono repo in the example above, collateral is now insufficient to the extent of $75, and a margin call to deliver this amount in cash is sent to the Mexican bank. The Mexican bank must now either go to the exchange market at the depreciated peso exchange rate to acquire the $75 or close out the position. To close the position requires the delivery of $400 in cash plus cumulated interest.

A tesobono swap places both parties in the same risk position as a repurchase. Suppose the New York firm swaps tesobono yield for LIBOR plus 100 basis points against a US$500 notional principal and

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8In the swap form of the deal, only net amounts were due in each settlement period.
requires US$100 as collateral from its Mexican counterparty. The payoffs to the two counterparties are identical to those of the repurchase. To hedge, the New York firm will purchase US$500 in tesobonos directly from the market, so once again the tesobonos will be held by “foreign addresses,” although Mexican domestic residents will bear the tesobono risk. Again, if tesobono prices jumped downward because of suddenly increased default risk, the New York counterparty would send out a margin call.

The scramble for dollars to cover such margin calls and position close-outs was associated with the currency turmoil of January and February 1995, and indeed with the large attack on the Banco de Mexico’s reserves on December 21, 1994.

**Equity Swaps and Equity Repurchase Agreements**

The market in equity swaps also existed to avoid financial market regulations: the regulation that prohibited buying securities on margin and the regulation that limited the possibility of short selling, regulations that appear in many emerging markets. Market participants have characterized the market in offshore Mexican equity swaps as very large, but they were not as explicit about orders of magnitude as in the case of tesobonos.

The benefits to this market’s participants are obvious. Speculators can leverage and gain larger positions, and hedgers of long positions held either directly or implicitly in the form of options can short stock to cover their positions. The market arose to complete the liquidity of the rising domestic equity and warrant markets.

Technically, stock swaps might be swaps or repurchase agreements. The repurchase is easier to analyze directly, though swaps predominate. A repurchase transaction involves selling shares currently at a given price and repurchasing them for a fixed price one year later, for example. The interest rate payable to the purchaser of the stock, typically

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9 The tesobonos associated with these swaps were held by foreign addresses. If the swap position was suddenly closed, domestic addresses would have bought back the tesobonos at some predetermined price through a termination option that might have required a payment penalty of 10 or 20 basis points. Then the data should indicate a sudden shift in ownership from foreign to domestic addresses. Payment of margin shows up as an exchange market disturbance of a smaller magnitude, but it did not generate a shift in the ownership categories.

10 Offshore equity swap markets also exist for Malaysia and Thailand, among others, also to avoid curbs on short selling and leveraging.
LIBOR plus 200 basis points, is settled and repriced quarterly. The initial purchase price might be $100 for $125 worth of shares, so there is a 20 percent margin.\footnote{The dollar purchase price is delivered to the initial seller of the shares—the funds are used to purchase $100 worth of shares. Thus, the initial seller of shares is long shares through the forward leg of the contract and has a 4 to 1 leverage of initial capital. The shares are delivered into accounts of the offshore financial institution that is lending funds; typically, these accounts are at Citibank, with Mexico acting as custodian. In turn, Citibank has stock accounts in Indeval, the Mexican securities depository.}

The offshore firm that initially purchases the shares has the right to dispose of the shares if it wishes. If it sells the shares on receipt, it has effectively used the repurchase to short Mexican shares because it is short shares through the forward leg, thereby circumventing the domestic constraints on short selling. If the initial seller of shares in the repurchase is an offshore subsidiary of a Mexican bank, the Mexican bank has circumvented the regulation against a Mexican bank’s lending equity for short selling. On maturity, the offshore lender may or may not resell actual shares to the borrower of funds. In 1994, many transactions were for physical delivery, but others might have allowed for cash settlement only. In many cases, individuals, especially those who were borrowing against controlling blocks of shares, wanted the stock back.

With the collapse of the Mexican peso and stock market, the margin in the equity repos was more than wiped out, triggering margin calls from New York in the form of cash or treasury bills. The response varied by client: some institutions claim that the margin calls triggered enormous sell orders in the stock market to acquire sufficient cash to close out positions while others report that their clients invariably delivered new funds rather than have positions closed. In either case, the Mexican institutions and individuals engaged in these repos had to sell pesos to get margin or close out their position, adding to the turmoil of the exchange and stock markets.

Again, an equity swap establishes leveraged positions equivalent to a repurchase agreement. Suppose that a New York firm agrees to swap the total return on a Mexican stock for LIBOR plus 200 basis points on a notional amount of US$125 and requires US$25 in collateral from its Mexican counterparty. To hedge its short equity position, the New York firm directly buys US$125 in the Mexican equity, thereby appearing as a foreign investor in Mexican shares. The risks borne by the two counterparties are the same as in the repurchase example.
above—the Mexican counterparty is taking a long position in Mexican shares and a short position in short-term dollar loans, while the New York counterparty has only a long position in short-term dollar loans.

It is a general view among market participants and bank regulators that prohibiting the holding of financial assets on margin in Mexico was a mistake. The effect was merely to drive such activity offshore rather than to limit it, and this made the magnitude and nature of the levering of positions opaque to the authorities.

Cetes Swaps

Cetes swaps and repos also were undertaken in large volumes with offshore counterparties. These deals were similar to the tesobono swaps and repos except that the collateral was cetes. These operations were regarded as more aggressive than the tesobono swaps because of the much greater currency risk. In return, however, there was a much greater spread between cetes and LIBOR interest rates. The typical deal might require a payment of LIBOR plus 500 basis points to the dollar lender, while cetes might yield 25 percent with an anticipated depreciation of 4 percent, for a spread to the Mexican bank entering the deal of 10 percent (based on LIBOR of 6 percent). Margin requirements were higher for cetes swaps than for tesobono swaps because of the currency risk, so the devaluation and surge in cetes interest rates triggered large margin calls.

Brady Bond Swaps

In addition to the swaps in short-term Mexican paper, there was a large volume of Brady bond swaps, which provided a means to Mexican banks of leveraging Brady bond positions. This allowed Mexican banks to reap a return both on the rising dollar yield curve and Mexico country risk. These were typically three-month contracts booked as repos with interest rates on the dollar legs set at LIBOR plus 100 basis points.

12 These were undertaken for ajustabonos and pagares as well as for cetes as the supply of cetes declined in 1994.
Structured Notes

Structured notes are investment vehicles with coupon payments and principal repayments that are driven by formulas that can vastly leverage the initial capital invested. Nevertheless, in value accounting systems they can be booked as normal investments and in the currency denominated in the prospectus. More than simply magnifying the usual market risks associated with investment positions, structured notes provide an easy method for circumventing prudential regulations on currency positions or interest rate mismatches.

During 1994, Mexican financial institutions took large positions in structured notes with investment houses in New York. Booked as claims with dollar principal and dollar payoffs, these notes were currency bets that allowed the banks to leverage their investment into a short-dollar and long-peso position to take advantage of the positive interest rate spreads between peso and dollar money markets. Because the notes were reported by the banks as dollar assets, however, the accounting rules in Mexico allowed them to be booked as a dollar position, so that they were not counted against the regulatory limit on net currency positions of 15 percent of capital. When the devaluation occurred, Mexican banks had much larger net short-dollar positions and losses than regulators had realized.

Structured notes exist in many forms. For example, a Mexican bank might buy a note with a one-year maturity from a New York investment house for $1. Most major New York financial engineering firms sold such products—including Bankers Trust; Merrill Lynch; Bear-Stearns; Donaldson, Lufkin & Jenrette; and Morgan Stanley. The coupon on the note and the principal on the note are payable in dollars. Suppose that the coupon is 85 percent. The principal repayment, however, depends negatively on the peso value of the dollar—suppose it is $1 + 5(s_0 - s_1)/s_1$, where $s_0$ is the initial peso value of the dollar and $s_1$ is the value at maturity. If the peso has depreciated by 50 percent at maturity—from, say, three to six pesos per dollar—the principal repayment will be $-1.50$; the overall payout is then $-0.65$. Note that this is the payoff structure of a position that is short $3$ at a market dollar interest rate of 5 percent per year and long 12 pesos at a market peso interest rate of 25 percent per year.

In Malaysia, these instruments, known as "principal adjusted coupon notes," serve the same purpose of providing leverage in acquiring domestic currency positions through foreign exchange financing.
Derivative Markets and Financial System Soundness

(For example, in the form of cetes). Effectively, the initial $1 investment has been leveraged four-fold.\(^{14}\)

Overall, the New York investment house would have, through the payoff formula, a position equivalent to being short 12 pesos worth of cetes and long $3 worth of treasury bills. In addition, it has the initial $1 from the sale of the note. To hedge, it could buy the peso by investing in cetes and short the dollars by borrowing them to buy cetes; it would then appear in the on-balance-sheet accounts as a foreign buyer of a peso-denominated asset rather than as a dollar-denominated lender.

Mexican banks face Banco de Mexico regulations that restrict foreign exchange net positions to a maximum of 15 percent of capital. According to the regulatory definitions of what constitutes foreign exchange—an asset or liability whose principal and coupon are denominated in a foreign currency—the $1 originally paid to acquire the structured note would enter the books as a long $1 position, even though its payoff implied a short $3 position. In addition, some banks could count it toward their liquidity coefficient, required for foreign currency-denominated liabilities, because its short maturity allowed it to be classified as a liquid deposit.

A bank that borrows the initial $1 to purchase the note would have a balanced foreign exchange position on net for regulatory purposes.

\(^{14}\)As a safety feature for the buyer, however, such structured notes place a cap on the potential losses to the investor. For example, in no case could the principal redemption plus coupon payment be less than zero. This means that the structured note includes an option for the buyer to sell the implied short-dollar—long-peso position to the New York investment house for $0. Alternatively stated, the New York investment house is short a put option on a long-peso—short-dollar asset. Normally, this would be far out of the money and therefore require little delta-hedging. A large enough movement in the exchange rate, however, would require the New York firm to establish suddenly an appropriate delta hedge.

After losing the principal and coupon on the note, there are no further loss implications for the Mexican bank. The New York investment house, however, now has only the long-peso—short-dollar position used to hedge the original note. At this point, the foreign banks start taking losses. In preparation for the suddenly likely exercise by the Mexican bank of its put option, the New York investment house would normally want to delta hedge by shorting the peso, but it was difficult to take a short position in the peso during the crisis itself. Market participants argue that a close substitute was then to short "Mexico-like" currencies, such as those of Argentina, Brazil, or Venezuela. Shorting other currencies that would behave similarly to the peso would provide a cover, though there would still be basis risk. Such short selling to cover structured notes on the Mexican peso provides some linkage for the transfer of pressure on the Mexican peso to the other currencies.
When the Mexican exchange rate was devalued in December 1994, however, the asset value would have fallen to zero, leaving the bank with an unbalanced dollar liability. In scrambling to cover this imbalance, the Mexican banks had to sell pesos, contributing to the December attack on the Banco de Mexico.

This type of structured note was a financial engineering device to circumvent prudential regulation. Only the principal was booked, in accordance with value accounting principles. The structured note payoff formula component was not booked—it was an off-balance-sheet item. That was the accounting trick—one can alter the nature of the booking through a complicated payoff formula.

Accounting regulations for the determination of foreign exchange positions have recently been changed to be consistent with a risk accounting principle. Principles of risk accounting are not generally accepted or understood. It is still not clear when risks are being taken by a bank. Risk accounting is currently a subject of discussion among regulators in industrial countries, and they are coming down on the side of self-regulation because they feel they are unable to determine the risk posture of a derivative book in a timely manner. In the past, the long position in dollars was, through value accounting principles, defined as a dollar asset without taking into account the sensitivity of the asset to the payoff characteristics. The new definition of foreign exchange position leans on a risk accounting principle: the position is classified as unbalanced if it generates potential gains or losses from the movement of the exchange rate.

**Cracking Capital Import Taxes**

Taxes on the acquisition by foreign addresses of domestic securities have emerged in recent years as a means of stemming capital inflows. They sometimes have been imposed differentially by maturity of asset and type of asset. In general, such taxes have been successful in that they have placed a wedge between domestic and foreign yields on similar assets. Of course, they can be breached by the usual invoicing subterfuges, but market participants also have used financial engineering to circumvent the taxes. Specifically, let us presume that an enforceable tax is placed uniformly on all forms of gross inflows. Then, any positive net inflow will incur the tax, but gross transactions will move offshore. As an example, instead of acquiring an equity position directly, a foreign investor will buy an offshore equity swap from a domestic resident who can hedge without a tax. If the domestic resident has a lower credit rating, an export of capital in the form of margin will be recorded. There will be no
taxable inflow, but foreigners can take risk positions in domestic assets.\textsuperscript{15}

If the tax is differential across types of assets acquired from abroad, the net inflow will tend to take the form that incurs the lowest tax. The risk and maturity characteristics of the inflow can then be resculpted through offshore derivatives to a more desirable form. For instance, if equity investment is given a better treatment than short-term fixed interest securities or bank deposits, the inflow will take the form of a stock acquisition together with an equity swap that converts it on net into a floating interest loan of foreign currency. Even the maturity of the loan can be adjusted with an attachment of a stringent margining provision that permits the offshore creditor to realize cash on call.\textsuperscript{16}

\textbf{Effects of Derivatives on Balance of Payments Accounting}

Among the rationales of balance of payments accounting is to ascertain the stability of capital flows of on-balance-sheet movements of assets. Typically, balance of payments accounting data are used to measure how long capital will remain in a country.\textsuperscript{17} Various categories of the capital accounts have been interpreted as indicative of the nature of capital inflows or outflows. Direct investment, for example, has been considered a more stable form of investment than portfolio investment or the foreign acquisition of bank claims. Foreign acquisition of short-term fixed interest products is generally regarded as a speculative flow. Balance of payments accounts are also used to measure the foreign exchange position of a country and, in times of crisis, to determine the potential outflow of foreign exchange through speculation or covering operations by holders of domestic liquid assets.

\textsuperscript{15}In the case of Chilean equity, market sources report that offshore equity swaps are used regularly to permit trading in Chilean equity. They also report serious, though as yet unsuccessful, financial engineering research efforts to crack directly the Chilean tax on capital imports.

\textsuperscript{16}To the extent that there is differential income tax treatment for different types of income—capital gains, dividend, and interest—derivatives may lose some effectiveness circumventing the transactions taxes.

\textsuperscript{17}Although the balance of payments capital accounts are set up to measure cross-border changes in legal ownership of claims to assets and liabilities, the classification system for financial items is designed to bring out the motivation of creditors and debtors. See International Monetary Fund's \textit{Balance of Payments Yearbook}, Part I (Washington, 1994), p. xxii.
The revolution in global finance and notably the explosion in the use of derivative products have rendered the use of balance of payments capital account data even more problematic than it has been in the past. Balance of payments accounting data use on-balance-sheet categorizations, and they are based on value accounting principles to book and categorize asset values. They ignore almost completely the existence of derivatives and their role in reallocating who bears market risk. This problem has grown with a massive explosion in the use of derivative products and especially in the use of cross-border products.

For example, the acquisition of a large block of equity is classified as direct investment, but a foreign buyer may be acquiring the block simply to hedge a short position in equity established through a derivative position. In the case of the equity swap described above, the foreign investment firm that sells the swap must acquire the shares to form a hedge. If the swap is large enough, it may be booked as direct investment because the offshore swap position is not included in the capital accounts, although the investment house in fact is making a short-term floating-rate loan in foreign currency. Declines in equity values or the exchange rate will then generate instantaneous exchange market pressure as margin calls are made or positions are closed. If the buyer of the swap is a domestic resident, the capital import effectively takes the form of short-term foreign currency-denominated borrowing, but the leveraged equity risk, and even the long-term control, remains in the hands of the domestic resident. Thus, the "direct investment" turns into the hottest of money. In a similar manner, direct investment in the form of reinvestment of profits can be converted into short-term funding through an equity swap.

Alternatively, a foreign program trader may acquire the domestic stock index in the cash market while selling forward in the offshore OTC index market. On net, the trader has a zero position in equities but in the balance of payments accounts appears as a portfolio investor in

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18The usual problems concern omissions or miscategorizations of transactions. That these have been magnified in the presence of widespread use of derivatives has been duly recognized by authorities responsible for technical standards, as exemplified by the April 1996 meeting at the IMF of the Informal Group on Financial Derivatives. Nevertheless, technical discussions even now center on how to fit derivative-generated payments into standard categories such as interest versus capital gains, the treatment of margin flows, and how to book repurchase agreements. The undermining of the meaning of the various asset categories of the capital accounts in the presence of unrecorded derivative products is not an issue under discussion.
domestic equities. If the opposite positions are taken by domestic resi-
dents—a sale of equities in the cash market and a forward purchase in
the derivatives market—the net equity risk position for domestic resi-
dents is unchanged, though domestic residents are now in effect short-
term foreign currency borrowers.

To the extent that they start with zero replacement values, as in the
case of swaps and forwards, derivative products do not affect mea-
sured net capital inflows or outflows; but they blur the information in
subcategories of the capital accounts. Specifically, they make a
mockery of the use of capital account categories in measuring the
aggregate short foreign currency position of an economy.

Some Policy Implications

From the explosion in the use of derivative products has emerged a
blind spot in both national and international surveillance of capital
markets. Through derivatives, both individual institutions and finan-
cial systems can be put at risk in magnitudes and from directions com-
pletely unknown to regulators. This problem arises because
derivatives are ideal means of avoiding prudential regulations, given
the universally slow adjustment of accounting principles to the advent
of these products. Capital controls, the first cousin to prudential regu-
lation, likewise are reduced in effectiveness. On a more parochial
level, the accounting principles by which balance of payments data
are gathered are being made increasingly obsolete. For each country,
the extent of the problem is unknown because comprehensive data on
derivatives are collected only at long intervals, and even the triennial
BIS data are not broken down for emerging-market countries.

Given the data gaps emerging from the large-scale use of deriva-
tives, it is tempting to restructure the data gathering of regulators and
multilateral surveillance institutions to provide information about
derivative positions on a systematic basis. Unfortunately, gross deriv-
ative positions alone are not sufficient statistics of risk positions, and
for IMF surveillance purposes any attempt to establish aggregative
net risk positions of the financial sector will fail.

It has proved impossible for bank supervisors in industrial countries
to make sense of derivative positions, and it will likewise be impossible
for supervisors in emerging-market countries to get a clear picture
of the net risk positions of their financial institutions when such insti-

\footnote{An exception arises if a deposit of margin is required by a foreign counterpar-
ty; the margin will be counted as a capital export.}
tions are free to do cross-border business. Indeed, the G-10 banking supervisors are currently changing their approach to bank supervision—discarding compliance-based supervision in favor of supervising the quality of the banks' risk management systems and relying on an agreed measure of capital at risk—because it is simply not realistic to get timely data on the net risk position of individual institutions, not to speak of getting such information on the entire financial sector. The problem is that gross financial positions are irrelevant. For example, why worry about a $3 billion long-dollar position in the international OTC options market held by an Indonesian bank if this position is offset elsewhere on its books? A complete picture of the bank's on- and off-balance-sheet positions would be necessary almost hourly because such positions can change very fast.

Even more complicated, computing such net risk positions requires dealing with whether to count dynamically hedged positions that rely on continuous price movements or somehow adjust for price breaks that make these hedges useless. Finally, international financial sector surveillance would presumably be interested only in macroprudential issues—aggregative net risk positions—rather than in the risk positions of individual institutions. As such, it would be necessary to net open positions among all the major institutions, providing that a scheme can be hatched to avoid changes on the national treasury by making transfers from the winning institutions to the losers.

The experience of the G-10 supervisors could serve as a guide: forget about establishing data on net risk positions; instead make sure that institutions have good risk management systems in place. That translates into assuring that financial authorities have a good grasp of the activities of their financial institutions in the aggregate. Are many of them taking speculative positions on one side of the market, raising the possibility that losses or margin calls could have macroeconomic implications? In other words, are banks doing anything that in the aggregate could undermine macro stability if their bets do not pay off? Finally, authorities must ask themselves if they fully understand the implications of any liberalization measures that allow commercial banks to trade in OTC derivatives.
The paper by David Folkerts-Landau and Peter Garber surveys extremely well how derivatives can affect macroeconomic stability. The miscalculation of risks by market participants, possibly motivated by a desire to evade prudential regulations, can lead to potential systemic crises. The authors point out that a blind spot has emerged in the domestic and international surveillance of capital markets because of the emergence of a bewildering array of derivative products, putting whole financial systems at risk in dimensions that are not transparent to participants or regulators. They suggest that traditional data on bank exposures (such as gross or net positions) are inadequate in measuring such risks, and that regulators must focus on ensuring that financial institutions have good risk management systems in place. This implies that the regulators themselves must understand derivatives, their implications and exposures in the marketplace, as well as the dynamics of deregulation when domestic market participants get heavily involved in new financial products.

In recent years, the IMF and the BIS have begun to highlight some of the key issues relating to the emergence of derivatives in the global financial markets. Valuable work has been done through the pioneering work of Folkerts-Landau and his colleagues in the various issues of the IMF's International Capital Markets. The BIS has added to the literature through its research, including the valuable Survey of Foreign Exchange and Derivatives Market Activity. What I propose to do is to review the key concerns over derivative markets raised by the authors and others, as well as some of the key characteristics of the derivative markets. I then offer some personal comments on the implications of such markets for central banks and conclude by reviewing what the Hong Kong Monetary Authority (HKMA) has done in the area of derivative markets.

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Dark Side of High-Octane Derivatives

Henry Kaufman was one of the first to point out the structural changes in the global financial system that make it increasingly vulnerable to financial excesses: the decline of the banking sector relative to the securities market; the global trends toward market deregulation, the growth of derivatives, and the emergence of offshore hedge funds; and a new credit culture and infrastructure. 1 Derivatives are considered dangerous because they add volatility to financial markets, they are not well understood (risks are opaque), and they are highly leveraged.

In addition, the authors argue that: 2
• derivatives can affect the magnitude and dynamics of a crisis;
• dynamic hedging can exacerbate a crisis, as demonstrated in Europe's exchange rate mechanism (ERM) and Mexican crises;
• the growth of derivatives and their off-balance sheet accounting obscure market behavior, causing the authorities to misread the direction and causes of crisis and hence the appropriate response.

Specifically, classical remedies such as interest rate tools may not work during speculative attacks.

I must confess that when I first read the 1994 paper by the authors, just before the outbreak of the Mexican and Barings crises, I had to undertake a crash course in derivatives to appreciate fully what they were saying. Since that time, both the Fisher Report and the Hannoun Report have addressed a number of fears raised by Kaufman. 3 It may be useful to summarize this body of consensus.

In a derivative market that is new to many participants, it is right that market intermediaries should disclose the risk exposures and profiles of their trading activities to potential participants. To quote the Fisher Report, "Financial markets function most efficiently when...

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market participants have sufficient information about risks and returns to make informed investment and trading decisions.” Market misinformation or uncertainties can cause major disruptions in its functioning, with potential systemic risks. Hence, the need to improve transparency.

Current accounting conventions do not provide sufficiently meaningful information at the transaction, institution, and market levels. The authors make the important point that derivative activities make balance of payments data less meaningful both in terms of magnitude of flows and timeliness. Because derivatives depend on complex models with critical assumptions about valuation, the participants must have good value-at-risks models and stress tests for proper risk management. This imposes heavy information costs on participants, as well as regulators, as each seeks to understand the risks involved.

The information disclosed should be meaningful and manageable for the participants. Such data should be comparable across products, institutions, and markets, as well as verifiable. The disclosure standards should have sufficient flexibility not to stifle further development of risk management concepts and disclosure practices. At the same time, it is understandable that derivative innovators want to preserve proprietary information to maintain their competitive advantage.

The Hannoun Report addressed specifically the macroeconomic and monetary policy issues raised by the growth of derivative markets and their implications for central banks. Under normal circumstances, derivative products promote better resource allocation and improve overall market efficiency. However, under conditions of stress, derivative products may add to market volatility and uncertainty. The Hannoun Report, however, was quite reassuring in suggesting that “developments in derivative markets are unlikely to have altered significantly the transmission channels of monetary policy or the efficacy of traditional monetary instruments.” They do provide central banks with new information, and with additional tools to conduct monetary policy. On the basis that derivatives are consequences, rather than causes, of instability, the report recommends that central banks should ensure that their policies do not contribute to uncertainty. The objective is to form stable noninflationary expectations through clear and continuing consistency in policies and policy formulation.

**Derivative Markets: An Overview**

Several key characteristics of derivative markets deserve greater attention. In April 1995, the BIS conducted a landmark survey involv-
ing 26 countries, covering roughly 90 percent of all active intermediaries in the derivative markets. The results were quite illuminating.

The 2,401 respondents reported a notional amount of outstanding OTC contracts at US$47.5 trillion, compared with US$8.2 trillion exchange-traded contracts outstanding at the end of March 1995. By comparison, the external liabilities of BIS-reporting banks were only US$9.2 trillion at the end of March 1996, and global wealth has been estimated at US$44 trillion. Although notional amounts are large, implying the (leveraged) right to buy and sell at highly significant levels, the net amount could be considerably smaller because there are substantial transactions offsetting each other.

The second feature is that the OTC market in derivatives is significantly larger than exchange-traded contracts. Ninety-eight percent of the OTC contracts were interest rate and foreign exchange products, reflecting the fact that interbank and foreign exchange markets are the largest OTC markets in the world. In April 1995, the daily average turnover, in notional amount, for the OTC contracts stood at US$880 billion versus US$570 billion for the exchange-traded contracts.5

Perhaps the most striking feature of the derivatives market is its high degree of concentration. Because of the skills base involved, the derivatives business is concentrated not only in mature markets, but mainly with a small number of financial intermediaries. In the United States, for example, 14 out of the 51 participants surveyed by the BIS accounted for over 90 percent of derivative market activities. This supports the findings by Moody's that eight money center banks accounted for over 85 percent of total activity in the first quarter of 1994.6 Similarly, about 25 banks out of nearly 400 U.K. participants accounted for more than 90 percent of that country's derivative market activity. In most markets surveyed, a handful of traders accounts for most of the action and therefore most of the risk.

The Emperor's New Clothes

A derivative is the property right of a property right. The change in the value of the derivative with respect to the change in the value of

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5Daily average turnover includes only interest rate and foreign exchange products.

the underlying asset is called the delta, δ. The second-order derivative with respect to the change in the underlying asset is called gamma, γ, and so forth. In essence, the financial sector is basically a derivative of the real economy. Put in such simple form, one can say, for example, that the central banks’ search for the transmission channel of money was a search for the δ of money relative to the behavior of the real economy. The benefits of derivatives are threefold: first, they allocate risks more efficiently; second, they generate useful information on market behavior; and third, they lower the transaction costs of trading in the underlying asset.

Derivative products are sold primarily on the basis that they distribute or hedge risks. Financial institutions are the major users of derivative instruments because they are risk intermediators. Put simply, derivatives enable the unbundling of property rights and risks to other parties. Derivatives were invented in order to split and trade property rights of lumpy assets: they subdivide asset specificity into manageable parts in the same way that money was invented to facilitate transactions. What has made markets more efficient, but unfortunately more volatile, is that property rights can be split almost indefinitely. A share is a derivative of the underlying assets of a company. A stock index is the second-order derivative of a basket of shares. A stock index option is the third-order derivative and so forth. As long as buyers can be found, derivatives can be created. As a cynic once said, “A derivative is a way to charge a client 400 basis points when you can normally charge him 40 basis points.”

Because derivatives generate information, they have a value whose correlation with the underlying asset is not necessarily stable. The higher the order of the derivative, the taller and more intertwined the credit pyramid of finance that can unwind if the underlying real economy suffers a serious reversal. Derivatives are supposed to distribute such risks.

This is where the concentration of derivative product players raises a fundamental question: to what extent have derivative risks been distributed outside the financial system? The market can price risks only if there is an acceptable way of measuring such risks. The Federal Reserve Board’s Bill Ryback used to comment that it is no good if a bank can quote the selling price of an option but cannot quote its buying price. My central bank instincts suggest that, in reality, the high degree of concentration of the derivative market, which makes the major players too big to fail, has transferred the systemic risks of these trades to the central banks as lenders of last resort.

The fact that derivatives have informational value also brings into mind one of the defects of the marketplace: “the fallacy of composi-
tion.” As seen in the ERM experience, the problem with the black-box models that price derivatives is that they are built on many assumptions of price stability, linearity, convexity, and the like. The trouble is that most of these assumptions are based on past trends and do not necessarily predict the future. Worse, their assumptions rest on central bank maintenance of price stability. When there are disjunctive shocks led by policy shifts or mistakes, those who are using these models find they are flying blind. This accounts for the Hannoun recommendation that the central banker must opt for policy consistency in derivative markets.

The informational content of derivative markets also underlines why the Folkerts-Landau and Garber paper suggests that we must “... focus on unregulated derivatives [which] can lead to systemic problems that can undermine macroeconomic policy through their use in circumventing the usual prudential regulation.” It raises the fundamental issue that not all of the major players are supervised by the central banks, and that not all of the regulatory or (information) disclosure standards are alike.

The derivative dilemma raises one important issue that must be addressed. Derivative markets can be efficient only if the underlying markets in real goods are efficient. Market participants will always try to bypass regulations or taxes through derivatives because the market will arbitrage out excessive rents in an unlevel playing field. If taxation or regulatory risks are high, the market will find a way around it. Differences in tax rates and regulations around the world will always create opportunities for derivative activity. The obvious solution is to reform the underlying distortions in economies that give rise to such activity.

I also agree with the authors’ thesis that traditional national income and monetary statistics no longer reflect the true behavior of global financial markets, making the interpretation and implementation of policy more difficult than ever. The traditional monetary and credit data that central banks collect no longer reveal the leverage in the system, because the leverage on options, warrants, and the like are provided by the capital market institutions, such as investment banks and funds that fall outside the statistics net. The degree of leverage and liability on derivatives is certainly not captured in balance of payments accounts as currently compiled.

Indeed, traditional value accounting principles cannot guide policymakers as to the degree of risks in the derivative market. Moreover, cash-based accounting in government budgets and accrual accounting in financial markets distort the quality of policy and market decisions, through leads, lags, errors, and omissions. Current difficulties in mea-
suring productivity growth in the services sector reflect another dilemma in the quality of market information. The emergence of derivative markets blurs our vision and information, but neither do we have good information on the underlying assets. Improvements in the information content of both derivative and real asset markets should be policy priorities.

Where does all this lead? The authors are absolutely correct that regulators need to understand the derivatives market better. Regulators need to know and understand why bankers and their clients are behaving the way they are. Proper legal and accounting frameworks would help to make both the derivative and underlying markets more transparent.

**Hong Kong's Regulation of Derivatives**

Having surveyed the issues, let me conclude by reviewing the HKMA’s approach to the emerging derivatives market. In conjunction with BIS’s global survey of derivatives, the HKMA conducted a derivatives survey on the size of Hong Kong’s derivatives market. From this, it emerged that Hong Kong currently has the seventh-largest derivatives center in the world. The HKMA has circulated guidelines on risk management of derivatives and is currently drafting policy guidelines on securities and derivatives trading for authorized institutions under the BIS’s proposals on the capital required to support market risks.

The HKMA derivatives survey, covering 379 participants, revealed that the notional amount of outstanding OTC contracts in Hong Kong at the end of March 1995 stood at US$1.5 trillion, compared with US$0.2 trillion exchange-traded contracts. On the other hand, the daily average turnover in the OTC market was only four times that in the exchange market. The daily average turnover for the OTC contracts stood at US$59.9 billion versus US$14.3 billion for the exchange-traded contracts in April 1995. As in the case of other markets, the top ten players accounted for 55 percent of the gross turnover and 58 percent of the outstanding amount.

Following the lessons of Barings, Procter & Gamble, and more recently, Sumitomo, regulators around the world have worked hard to develop an appropriate framework to manage derivative risks in their markets. The HKMA circulated guidelines on the risk management of derivatives in December 1994 and March 1996 to provide authorized institutions a framework on specific aspects of the risk management process for trading derivatives. These guidelines were based on direct
observations, on weaknesses identified in the surveys and treasury visits conducted by HKMA since December 1994, and on recommendations from the Basle Committee and the Group of Thirty.

In essence, the guidelines concentrate on five specific areas:

1) **Risk management and corporate governance.** It is vital for the board and senior management of financial institutions to "understand the nature of derivatives which they are supposed to be controlling." It is their job to "ensure that the organization of the institution is conducive to managing risks."

2) **Board and senior management oversight.** Consistent with the above, "the board should approve written policies which define the overall [policy] framework within which derivatives activities should be conducted and the risks controlled.” This area also details the framework, giving requirements for the evaluation and approval of “new” products or activities, identifying the various types of risks, and requiring stress testing of positions.

3) **Identification and measurements of risk.** The main types of risk are identified and defined for the attention of the institutions. “It is important that the institution understands clearly the nature of its relationship with the counterparty and the obligations which may flow from that.” Once these risks have been identified, the measurement process begins. All positions should be marked-to-market, and the probability of future losses assessed. The guidelines recommend that active dealers and active position takers should adopt the value-at-risk approach to manage their trading risks. Furthermore, institutions should conduct stress tests on a regular basis in order to evaluate the exposure under the worst-case market scenarios.

4) **Limiting risks.** "A comprehensive set of limits should be put in place to control the different types of risks associated with derivatives and other traded instruments.” For example, market risk limits should be established for different levels of institutions and should take into account factors such as past performance of the trading unit and experience and expertise of the traders. The institution should establish separate limits for settlement risks. Each authorized institution should have independent risk control, that is, independent monitoring and control of the various risks in derivatives.

5) **Operational controls.** Operational risk arises as a result of inadequate internal controls, human error, or management failure—hence, the importance of segregation of duties. A number of derivative losses, such as Barings, Daiwa, and Sumitomo, were due to a failure of basic internal controls. Policies and procedures should be established and documented to cover the internal controls and applied at various stages in the processing and monitoring of trades. Contingency plans
should be reviewed and tested on a regular basis. Internal audits are an important part of the internal control process. The head of internal audit should, if necessary, have direct access to the board, audit committee, and the chief executive.

**Concluding Remarks**

I have tried to reduce what appears to be very complex issues into certain basic fundamentals. Derivatives are inherent features of property rights. It is the way financial markets are evolving. As the derivative markets get bigger, the systemic risks escalate. If I am correct, derivative markets reflect the distortions in the real economy. Therefore, the priority of central bankers remains the same. Take care of the fundamentals, and the market will take care of the rest. Our job is to help make the real economy, and by corollary the financial markets, work better.

Kaufman was right to call for greater international surveillance of financial markets and for better international harmonization of supervisory, regulatory, accounting, and trading standards and practices. This is already happening, though perhaps not as fast as some would like.
Mr. Kovacs suggested that the problems occurring in the wake of the recent changes in the U.S. dollar/yen rate showed that derivatives could create problems even if the fundamentals were good. Mr. Sheng responded that the existence of derivatives merely accentuated trends that would have taken place anyway. Mr. Lindgren added that not only economic fundamentals must be right, but that also financial fundamentals must be right, and that early action to ensure soundness was needed.

Mr. Thahane asked whether less developed countries should say "no" to derivatives, given that the fundamentals were not yet in place, and that the big financial houses in New York could exploit the weaknesses of these countries. Mr. Garber said that it was hard to say "no" to derivatives. If the banks in a country could be trusted—in the sense that there were no incentives to chase after risky profits—then the banks would use derivatives to reduce risk; in that case, saying "no" to derivatives would be a mistake. If, on the other hand, the banks had no capital and were willing to bet against the safety net, they might be able to circumvent controls by using, for example, offshore operations. In sum, the answer to the question was a function of the ability of the regulators to cope with the situation.
Part VI

The Banking Sector and Structural Change: Case Studies
Financial system reform in Poland started in the late 1980s with the devolution of its single administrative structure, typical for command economies, into one national savings institution and nine, regional, universal commercial banks. This new, two-tier banking system also comprises an independent central bank—the National Bank of Poland (NBP)—and about 90 universal banks, not to mention more than 1,500 small, local, cooperative banks. The NBP as a licensing and supervisory body sets requirements on the banks, including minimum capital requirements, staffing and projected operations, suitable premises, and acceptable articles of agreement.

At the beginning, the main concern of the NBP was to enhance competition among banks, in expectation that it would increase efficiency and speed up adaptation to the new economic circumstances. A liberal attitude toward the licensing of new banks has led to the creation of about 100 private or semiprivate (owned in part by state enterprises and institutions) banks. In the first few years, private ownership of banking was seen as a primary means for ensuring the better allocation of financial resources in the economy. It was deemed important to remove political considerations, which might have been distorting the incentives facing state banks. In May 1991, the government decided to privatize the nine regional banks separated from the NBP in 1989, and the first of them became private in April 1993. Most of the new banks, although undercapitalized and lacking expertise, were very aggressive in looking for new clients. This resulted, after some delay, in a sharp deterioration of their loan portfolios.
Since the beginning of the economic transformation, and the subsequent recession, the financial system has been deeply affected by these banking developments. A sharply deteriorating economic environment was the source of instability and required immediate action. The seriousness of the emerging risks necessitated emergency moves and accelerated the need to find long-run systemic solutions. Those long-term solutions assumed creation of a competitive banking sector, a suitable banking infrastructure, and implementation of an appropriate legal and institutional framework.

**Supervisory Issues**

Effective banking supervision is critical to any country’s overall economic stability. While the specifics of banking supervision may vary from country to country, the main objectives are to promote safe and sound banking practices, protect depositors, and maintain stability in the financial markets by eliminating likely systemic risks. While banking supervision must safeguard the stability of the whole sector, it must also leave banks free to carry on commercial activities in a way that allows for a competitive allocation of capital in the economy. As such, banks’ freedom of action should be restricted only by prudential standards and practices.

The process of setting up banking supervision in Poland began in 1989, in close cooperation with the relevant international institutions (the World Bank, the International Monetary Fund, and the Basle Committee on Banking Supervision) and with supervisory authorities in developed countries. This was particularly important in developing adequate legal regulations, establishing principles of bank accounting compatible with international standards, preparing a model for bank reporting, and training of staff.

The following key elements of the economic infrastructure received a great deal of attention:

- a system of business laws, including corporate, bankruptcy, contract, and private property laws;
- a system of codes of practice;
- adequate and well-defined accounting principles;
- a system of independent audits;
- publicly available information for use by current and potential investors, creditors, customers, and other stakeholders;
- an efficient payments system for the settlement of debts; and
- the functioning of rating agencies.
In Poland, it was decided that the president of the NBP would exercise supervisory authority over the operations of banks, within the frame of reference stipulated by the Banking Act. Daily supervisory activity is conducted by authorized NBP staff, who are empowered to enter banks and their offices for this purpose and who report directly to the president of the NBP.

The NBP evaluates bank operations on the basis of the information gathered and may undertake measures specified in the Banking Act. In particular, it may do the following:

- analyze the balance sheets of banks;
- review compliance with the requirement that banks maintain certain levels of liquidity;
- review compliance in relation to loans and advances extended (per legal lending limits);
- review loan collateral and repayment performance; and
- review the interest rates charged by the banks on loans and advances; and
- review the financial condition of banks.

In performance of banking supervision, the president of the NBP may also instruct banks to restore liquidity or comply with certain prudential standards, increase their capital, or desist from particular forms of advertising.

NBP's Banking Supervision Department, in collaboration with the consulting firm of KPMG, has developed an on-site examination manual. The manual contains chapters covering virtually all areas of commercial bank operations and risk assessment. The department has developed a bank closing manual, also in collaboration with KPMG, which contains a standard set of procedures to be applied in the event of bank failures, together with a draft information/bid package to be used by receivers, trustees in bankruptcy, and potential investors at the distressed institutions concerned. Together with U.S. advisers, the department also has been conducting work to reform the system of banks reporting, to develop adequate information technology support, and to prepare a standard analytical bank report modeled on the U.S. Uniform Bank Performance Report. The new report forms came into use on January 1, 1997. They were designed to correspond to the objectives and requirements of several departments of the NBP, including the Banking Supervision Department, the Credit Policy Department, the Department of Statistics, and the Research Department.

In collaboration with IMF experts, the Banking Supervision Department developed a new Model Bank Chart of Accounts in 1994.
The chart in its final form was published as Regulation No. 4/95 by the president of the NBP on February 22, 1995. Work has also been concluded on a summary commentary to the chart of accounts, presenting detailed principles for recording bank products and transactions.1

**Problems in the Banking Sector**

Along with development of its supervisory functions, the licensing policy of the NBP was tightened, and new prudential regulations were gradually imposed on banks. With the help of the international community, Poland implemented more adequate reporting standards and requirements. Obviously, this could not improve the quality of the portfolios themselves, which reflected the very poor condition of Polish enterprises and which were negatively affected by macroeconomic changes and adjustment requirements. An audit of the nine state banks performed by international auditing firms in 1991 revealed that banks' positions and, more important, that of their borrowers were dramatically bad. The share of loans classified as doubtful and the loss varied from 20 to 70 percent, depending on geographical location and former specialization.

The accumulation of bad loans during the economic transition, and high, though decreasing, interest rate spreads, led to the inefficient allocation of resources (the relative overtaxation of good borrowers and depositors); the charges resulted from a need to build up provisions against adversely classified loans. In these circumstances disintermediation can occur, with many potential bank customers lost to cheaper and more flexible financing—either in the form of money market instruments in the capital markets or even outside the domestic financial market.

The other fact was the weak position of several banks, a consequence of poor management skills and poor qualifications of the personnel, along with inappropriate procedures and internal regulations as well as the inadequate risk appraisal. A number of banks suffered

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1The soundness of the newly created system was weakened by macroeconomic shocks that came with transition from a centrally planned economy to a market-oriented one. The banks were negatively affected by hyperinflation, followed by shock therapy (price liberalization and exchange rate adjustment), implying drastic cuts both in domestic and external demand and vast structural and institutional changes. The adjustment process imposed hard budget constraints on enterprises, and the collapse of the COMECON was followed by deep economic recession.
from insufficient equity and became virtually insolvent; several banks failed in the end. These failures were one of the factors that led the NBP to terminate the liberal licensing policy of 1992.

Where a bank is found to be in persistent noncompliance with recommendations issued to it, or the bank’s operations are in flagrant violation of law or its articles, or represents a material threat to the interests of depositors, the president of the NBP is authorized to apply a series of remedial measures, up to and including revoking the bank’s authorization to operate. The president can issue a liquidation order.

Some small and badly managed banks were gradually withdrawn or expelled from the market (through liquidation), while others were taken over by bigger and sounder banks. In many cases where banks went into default, the banks’ executives were forced to resign and were replaced by administrators nominated by the NBP. The NBP felt responsible for the newly established private banks and intervened in some medium-sized private banks, which accumulated significant household deposits and were important for local communities. The government protected the fate of state banks and eventually decided to recapitalize them.

The prevailing reason for bank default was a range of portfolio problems on the asset side, revealed by external audits and by bank examiners. Excessive lending to a single customer and insider lending to shareholders were other factors that weakened the assets side of the balance sheet in many small and medium-sized banks. Most asset-related weaknesses arose from neglect of credit risk management and inadequate compliance with relevant laws and regulations.

The recession years of 1990–92 led to the erosion of the capital base of many banks, including state-owned banks, because of the high inflation, low profits, and changing taxation rules that did not foster adequate reserves against likely loan losses. According to auditors’ estimates, the share of bank credits considered doubtful rose sharply in 1991–93; the bulk of these credits was granted to the big state enterprises. The creation of numerous new private companies caused new and different difficulties, resulting from a lack of credit history, poor management skills, and sporadic corruption.

The lack of experience with banks and markets was quite natural for new enterprises operating in an economy in transition and was observed in other neighboring countries. Nor was it always possible to evaluate companies’ prospects, their future sales and prices, in the quickly changing conditions, in the fact of high inflation, and in the midst of many dramatic legislative changes. The fundamental questions were how to avoid further deterioration of banks’ assets and how to sort good credit risks from the bad.
Having monitored the mounting crisis within Polish banking during 1992–93, the NBP undertook a series of measures, both systemic and institution-specific, to strengthen the banking sector and to encourage saving. The systemic measures included commencing work on three new pieces of legislation, duly enacted by Poland’s Sejm in 1994:

- the act amending the corporate income tax, which laid the basis for recognizing as a tax-deductible expense the provisioning for charges against loans and advances classified as loss;
- the Act on the Restructuring of Cooperative Banks and of BGZ (the nationwide affiliating institution for cooperative banks), which made provision for the financial and organizational restructuring of cooperative banks and the BGZ; and
- the Act on the Bank Guarantee Fund, which established an institution with the statutory objective of providing financial assistance in bank restructuring and guaranteeing deposits held at all banks in Poland.

In situations where a bank finds itself in jeopardy or adverse rumors begin to appear in the press, depositors take steps to withdraw their funds. When the bank’s operations are suspended, however, and the president of the NBP petitions for a declaration of bankruptcy, the bank’s customers are willing to undertake certain commitments (keeping their funds at the bank for a period of several years earning interest below market rates, waiving interest already accrued, and so forth).

The Act on the Bank Guarantee Fund makes no provision for bank rehabilitation through the buying up of bad loans. However, the fund is empowered to provide repayable assistance for the purposes of bank restructuring (at preferential rates of interest), principally to clean up loan portfolios. The resources available for restructuring are collected from annual contributions from the banks, with a ceiling on these contributions equivalent to 0.4 percent of a bank’s risk-weighted assets.

The following conclusions may be drawn from the experience gathered in Poland during the crisis in the banking system:

- where a bank’s capital-asset ratio is approaching zero or below zero, the bank usually will be incapable of overcoming its difficulties without external assistance;
- early identification of problem banks, coupled with relevant restructuring measures, increases the likelihood of these banks being rescued;
- it is essential for banks to introduce detailed internal procedures for assessing loans and other exposures to insiders (shareholders or members of management);
• banking supervision requires broad powers to influence the composition of a bank’s ownership and management;
• consistent application of the principle that losses are to be absorbed by capital, together with notifying law enforcement agencies of criminal offenses committed by bank management, constitutes an effective deterrent with respect to moral hazard—even when the bank receives public funds; and
• in the circumstances of a large-scale banking crisis, assistance from public funds is indispensable.

The legal regulations concerning banking supervision issued by the NBP president have all been published in the bank’s official journal. Some of the essential regulations include:
• Regulation No. 11/92 issued on August 7, 1992, on the organization and performance of banking;
• Regulation No. 16/92 issued on October 1, 1992, on bank procedures in the event of deposit at a bank of funds or other assets constituting the proceeds of crime or those associated with a crime, and in the event of cash deposits exceeding a specified amount;
• Regulation No. 4/93 issued on March 19, 1993, on the establishment of normative provisions for permissible foreign exchange risk in banking activities;
• Regulation No. 7/93 issued on May 20, 1993, on capital requirements relating to bank assets;
• Regulation No. 13/94 issued on December 10, 1994, on procedures for provisioning against the risk of banking;
• Regulation No. 1/95 issued on February 16, 1995, on detailed principles for bank accounting and for the compilation of additional information;
• Regulation No. 4/95 issued on February 22, 1995, on the establishment of a model bank chart of accounts;
• Regulation No. 10/95 issued on December 29, 1995, on detailed procedures for the consolidated financial statements by banks; and
• Recommendation for banks issued June 1996, concerning the monitoring of financial liquidity (this document covers all qualitative aspects of managing liquidity).

In developing regulations and other prudential standards applicable to all banks, NBP has been faced with a series of challenges. The changing nature of the operations conducted by many banks, the new products and transactions being introduced, and the new legal provisions being adopted all require the regulators to amend existing standards and extend the scope of supervisory regulations to include new
areas of activity. One example is Regulation No. 16/92, which requires all banks to develop internal compliance programs to combat money laundering and to notify the public prosecutor’s office of certain account activity. During their routine on-site examinations, bank examiners monitor the adequacy of these compliance programs. The NBP’s Banking Supervision Department is currently considering the possibility of amending this regulation to raise the cut-off amount for sums that require investigation and to express it in European currency units (ECU).

Further, certain amendments have been introduced to the regulations governing provisions against risk assets (Regulation No. 13/94). As a result of the Accounting Act, the need arose to include all impaired assets in provisioning requirements.

The measure of capital adequacy adopted in Poland is based on the concepts developed by the Basle Committee on Banking Regulations and Supervisory Practices, which have since been approved and implemented by almost all agencies of banking supervision throughout the world. Certain modifications that have been introduced in Poland are attributable to the need to adjust this instrument to correspond to the specific circumstances of Polish banking. The minimum risk-based capital requirement considered safe has been set at 8 percent. Observance of this requirement does not automatically guarantee the success of any given banking institution nor its long-term solvency.

The particular significance of the capital adequacy measure and its adoption on an international scale arises from several factors:

- it provides a precise indication of the attitude of banking supervision to the measurement of capital adequacy, which is assigned a central role in the assessment of safety and soundness;
- it constitutes a safety mechanism, as it expresses the degree of risk being assumed by a bank in the form of a rising capital requirement; and
- it demonstrates the need to consider internationally recognized prudential regulations, since the operations of many banks transcend national frontiers.

The procedure whereby the value of particular exposures, multiplied by the relevant risk weights, is related to an institution’s capital base stems from the fact that, in supervisory terms, capital performs several functions: it cushions operating losses; as a permanent investment on the part of the bank’s shareholders, it demonstrates their readiness to cover any associated risk; and it provides the bank with a relatively low-cost source of funding. The provisions on risk-based capital are contained in Regulation No. 7/93 (May 20, 1993), on cap-
ital requirements relating to bank assets. This stipulates that a bank’s weighted capital may be no less than 8 percent. Banks that commence activity after the regulation was introduced are required to maintain a ratio of no less than 15 percent for the first 12 months of operations and no less than 12 percent for the following 12 months.

The NBP believes a proper valuation of loan portfolios is impossible without proper knowledge of both the share of particular asset classifications in the total volume of outstanding loans and the level of specific reserves required and actually established. Asset classification represents a particularly sensitive aspect of a bank’s activity. The losses liable to be generated by high-risk assets through the ensuing erosion of capital resources have a direct bearing on the bank’s growth. The level of reserves required compared against those actually established (and thus of the amount “missing”) makes it possible to determine the quality of the bank, its financial capacity, and its overall condition. All of the above measures represent an effort to avoid any sudden slump in bank earnings.

While the concept of large exposures and the related limits vary from country to country, the treatment of such exposures always includes statutory limits for prudential purposes, protection against credit risk, diversification of risk and financial resource allocation, minimum safety standards as assessed by the regulators, proper diversification and segmentation of the loan portfolio, and bank management developing their own policies concerning a safe level of diversification within the loan portfolio. To counter the danger of large losses, it is necessary to introduce appropriate limits by specifying the maximum exposure a bank may have to its customers as a percentage of its capital base. This stems from the need for the bank to apply one of the basic principles of prudential banking practice—risk diversification.

The scope of limits on a bank’s financial exposure must also include off-balance sheet exposures arising from guarantees, endorsements, and letters of credit. The Act on the Bank Guarantee Fund took effect on February 17, 1995. It provides for the operation of three different deposit protection schemes, each of which constitutes a self-contained system based on separate rules regarding payouts to depositors of funds entrusted to banks that become insolvent. The three schemes are a universal statutory system of deposit guarantees operated by the Bank Guarantee Fund, guarantees extended by the Treasury, and a voluntary deposit guarantee scheme.

The Bank Guarantee Fund was set up as a corporate body pursuing a two-fold objective. The first relates to the operation of the compulsory and voluntary deposit guarantee schemes. The second involves assistance to institutions in the system of guarantees. Participants in
the compulsory system of deposit guarantees are banks operating pursuant to the Banking Act of January 31, 1989. As of the consolidation of financial statements by the regional affiliating structures of cooperative banks—provision for which is made in the Act on the Restructuring of Cooperative Banks and of BGZ—the cooperative banks affiliated to these structures will cease to participate in the guarantee system, and their place is to be taken by these regional institutions. The guaranteed deposits constitute funds in Polish zloty or foreign currencies deposited at a bank participating in the system by the depositor named in the evidence of receipt issued by the bank, irrespective of the number of contractual agreements the depositor has concluded with the bank, up to a statutory maximum ceiling. Those eligible for deposit protection under the compulsory guarantee system are those parties holding funds in a bank account, whether they be natural persons, juridical persons, or organizations not possessed of personality at law.

A guarantee relationship exists between the Bank Guarantee Fund and each depositor, involving the right of the depositor to claim a certain sum of money as of the date the conditions for performance of the guarantee are fulfilled. This date is defined under the act as the day when the bank concerned is declared bankrupt, or when a ruling to reject a petition for bankruptcy on the grounds of insufficient assets to cover the costs of bankruptcy proceedings becomes final and conclusive, or when it is ascertained that a regional cooperative structure is unable to cover the debt exposure and liabilities of a cooperative bank affiliated to it, where such a bank is declared bankrupt or a petition for it to be so declared is rejected on the grounds of insufficient assets. In other words, the conditions for fulfilling the guarantee are met the day the bank's insolvency is formally recognized, pursuant to the relevant regulations. The act also stipulates the maximum guarantee a depositor may claim from the fund: 100 percent for sums up to ECU 1,000, and 90 percent for sums between ECU 1,000 and ECU 3,000, increased recently to ECU 5,000.

Banks participating in the statutory deposit guarantee system pay the fund an annual contribution not exceeding 0.4 percent of their risk-weighted assets. For three individual banks—Pekao SA., PKO BP, and BGZ SA.—the mandatory contribution to December 31, 1999, cannot exceed 0.2 percent of risk-weighted assets. A participating institution is automatically exempted from the annual contribution if it becomes insolvent.

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1Cooperative banks will be represented by consolidated regional institutions.
The fund's capacity to protect deposits is ensured by requiring participating institutions to establish a guaranteed deposit protection fund. The size of this fund must be determined no later than the end of each calendar year, as a percentage of the funds held at the bank (or regional cooperative institution)—but no higher than 0.4 percent—on all accounts that constitute the basis for computing the regulatory reserve requirement. Banks are obliged to hold the assets that make up the protection fund in the form of treasury securities and NBP money market bills, to be deposited in individual custody accounts at the NBP or the National Securities Deposit.

The operations of the Bank Guarantee Fund are also financed from other sources. They include interest income from loans made by the fund and from treasury securities, funds received as nonrepayable assistance from abroad, central government subsidies, loan facilities extended by the NBP, and other income.

Restructuring and Observed Benefits

Under these circumstances the restructuring program prepared by the Polish Government had to address both banks and their main borrowers—state enterprises. It should be remembered that banks' restructuring was a precondition to their subsequent privatization, which was intended to make their behavior purely market oriented. Placing private capital at risk would cause the banks to enforce market behavior on their customers, including companies from the public sector.

The key factors in the restructuring proceedings were the scale of the problem, the lack of institutionalized procedures for dealing with restructuring and bankruptcy, and the scarcity of experienced managers. It became necessary to introduce a specially tailored legal framework to start the restructuring process. The special law—the Act on Financial Restructuring of Enterprises and Banks—was adopted in February 1993 to provide banks, as major creditors, with powers to negotiate with borrowers. The act introduced the banking conciliatory arrangement, which gave both creditors and debtors greater latitude to restructure banks and enterprises as needed. The state banks were supplied with extra funds to replenish reserves, and it was expected that the new approach would motivate enterprises to prepare reliable restructuring programs, ones that might justify further financial involvement by the creditors. Both parties were additionally motivated to deal with bad debts; proceedings with all major creditors (except social security and employee remuneration claims) facilitated agree-
ment on the restructuring of major credits or on debt reduction. Other instruments that were suggested included the public auction sale of bad loans and debt-equity swaps. In the end, the restructuring process reduced excessive indebtedness in many viable companies.

The fundamental strategy in the restructuring was a decentralized approach to give the banks a key role in the process. The government assumed that without wide bank participation a new wave of bad loans was likely. It was hoped that the restructuring would radically change firm behavior—imposing on them hard budget constraints and a sense of ownership. The transformation of companies into joint-stock companies was anticipated as a major step toward their privatization.

Other visible results were the attitudes of banks toward lending, as they made use of the experience gained in workouts: banks introduced the new lending procedures, and workout specialists taught credit officers new analytical techniques that were used in the restructuring processes. Banks' attitudes toward customers also changed dramatically. The fast expansion in the outlets for and number of products and services contrasted with past practice.

Banks are now adjusting their operations from the period of rapid growth in the early 1990s when employment in the sector grew and interest rate spreads were high. In recent years banks have moved from attracting new personnel through competition in remuneration to developing growth potential of their employees and from attracting customers irrespective of cost to greater reliance on reliable borrowers and well-prepared investment projects. They have also moved from competition—the levels of fees and interest rates to a greater emphasis on the range and quality of products and services offered.

In consequence, the quality of banking services has risen, shown in the handling of good, corporate customers and the higher efficiency of interbank settlements. Quality improvements point to further development of the banking sector. The other important consideration is the achievement of almost full compliance with international accounting practices and standards, associated with the accumulation of adequate provisions against classified assets by domestic banks and the strengthening of the banking supervision and enforcement.

The growth potential of the banking sector is supported by numerous factors, a major one being that the zloty has become fully convertible in current and partly convertible in capital account transactions. These factors are augmented by a steadily growing domestic market, increasing stability in financial markets, and a greater range of financial instruments available. The restored confidence in the domestic currency led to the accumulation of a stable
deposit base by major banks. Finally, the structure of the banking industry may influence its soundness as well. Too large concentration in the banking sector means that only a few banks will enjoy economic rents and can lead to the inefficiencies resulting from the lack of competition.
Hanna Gronkiewicz-Waltz's paper provides a comprehensive review of changes that have taken place in Poland, so I will attempt to complement her remarks by bringing in some of the broader issues affecting the evolution of banking systems in transition economies, the experience of some other transition countries of Central Europe, and the implications for monetary policy.

For those less familiar with the transition, two points may illustrate what the transition has meant for banking and monetary policy. First in the planned economy, there was no independent role for banking or monetary policy. From a macroeconomic perspective, the reforms involved in switching from direct (planning-type) to indirect (market-based) instruments were most marked in the role of monetary policy. In the prototype planned economy, the role of money was passive. Money payments essentially validated the planner's commands, whose task it was to balance real resources in terms of quantities. In contrast, in a market economy, the role of money changes from passive to active, giving the holder of money command over real resources. Thus, monetary policy becomes crucial to financial stability, and a functioning banking system becomes crucial to the effectiveness of monetary policy.

The first step taken by all transition countries was to split the monobank into a two- or three-tiered banking system, separating central from commercial banking activities: China in 1984, Hungary in 1987, the former Soviet Union in 1988, Poland in 1989, the ex-Czech and Slovak Federal Republic in 1990, and the others since then. But a multitiered system does not make a banking system. In most cases, the credit departments of the former monobank were heaved off into separate commercial banks with portfolios, staff, and expertise of commercial banking practices of varying quality.

Second, the transition involved a change in environment that could have baffled even seasoned bankers. The previous regime, to varying extent, set relative prices with a view to building surpluses in large enterprises as an easy means of financing the budget as profits were taxed, returned as dividends, or simply confiscated. The change in relative prices following price and trade liberalization (together with the contraction of output) resulted in a massive reallocation of surpluses. For example, positive profits as a share of GDP in Bulgaria, Hungary, and Poland went from 20–30 percent of GDP in the year preceding the
initiation of the transition to 10 percent or less three years later. Thus, while the emergence of bad debts is often ascribed to (in many cases rightly) the capitalization of interest and weak governance in the banking system, it must also be recognized that this was a difficult environment for credit assessments.

What have banks done in this environment? Some have adjusted and some have not. In Poland, which is often held as a model, the restructuring of bank portfolios has taken place under the framework of the 1993 Law on Enterprise and Bank Restructuring. The program relied on three important elements. First, it had the banks confront their problems in a decentralized fashion (through their workout units). Second, it established an incentive structure for the banks as a strict deadline was imposed for initiating action on bad loans; the volume of such loans for which recapitalization was in prospect was fixed ex ante (at the level of end-1991); and eventual recapitalization was conditioned on the creation of workout units and implementation of a restructuring program. And third, banks operated under the commercial code, with ownership exercised by the Ministry of Finance through supervisory boards and with the clear prospect of future privatization. In that way, the government intended to deal simultaneously with the stock and flow aspects of the bad loan problem.

Although the program can be assessed only from a longer-term perspective, it appears to have been successful in removing the burden of old loans while avoiding a flood of new ones. Banks chose conciliation procedures (a streamlined version of a Chapter 11 proceeding under U.S. bankruptcy law) for about one-third of their bad loan portfolio; liquidation or bankruptcy was the second most often chosen path (29 percent); and most of the remaining debts were either sold in the secondary market or debt service was resumed. In return, the government provided the banks involved with about ZL 4 billion in recapitalization bonds, raising their capital-asset ratio to the target level. As for new loans, it is estimated that only 2–4 percent of new credits turned bad, a result also of the tightening of licensing requirements effected from 1992, in conformity with European Union standards, and the experience with supervision since then.

At the other end of the spectrum is the crisis of Bulgaria’s banking system, which follows several years during which the banking system was troubled by widespread liquidity problems and growing insolvencies. The level of nonperforming loans—estimated at about 70 percent in late 1995—resulted from the absence of hard budget constraints on state-owned enterprises as well as poor bank management and lack of enforcement of supervisory standards. The runs on banks took on a more systemic nature in 1996 as fears escalated that
foreign currency deposits would be blocked, prompting withdrawals of foreign currency deposits of US$800 million from December 1995 through November 1996 (38 percent of deposits at end-1995) and syphoning off a substantial part of inflows coming through the balance of payments. While clearly unduly delayed, steps were taken in 1996 to deal with problem enterprises and banks. Sixty-four enterprises were closed, and 70 others were isolated while 14 banks were closed in May and September, accounting for about 20 percent of total deposits.

Even in Poland, however, the process has been less than totally successful in improving enterprise governance. A recent study by the World Bank reported on a survey of about 20 percent of the 787 firms initially included in the enterprise and bank restructuring program. Though the survey confirmed that, on balance, the program had a positive impact, several problems remain. For example, even for cases dealt with through the bank conciliation process (the better-off firms), the survey found declining profitability and cash flow in the first two years of the agreement's implementation. This is perhaps not surprising as the study also concluded that the bank conciliation agreements appear to have dealt primarily with financial conditions—mostly large debt write-offs and renegotiation of payment dates—and included very few tangible requirements for operational or management changes.

Though improving, the inefficiency of banking systems at the microeconomic level is also having effects on macroeconomic policies. This can be illustrated with examples from the Czech Republic and Poland. The first driving force for capital inflows in the Czech Republic was enterprise borrowing abroad. After a time, this came to reflect, in part, lower foreign interest rates; but initially it reflected primarily the lack of domestic availability of longer-term credits as domestic banks tended to match strictly the maturity structure of their liabilities (mostly short-term) and their assets. The problem did not reflect an assessment that long-term lending was too risky—at least initially enterprises were simply not well enough known by foreign creditors—as all loans had to be guaranteed by domestic banks, which therefore carried the full commercial risk. The banks simply refused to transform maturities on their balance sheets. The resulting capital inflows created significant problems of monetary control.

The effect of inefficient banking systems on the conduct of monetary policy can also be illustrated by the weak transmission mechanism. A study by the IMF's Monetary and Exchange Affairs Department in 1994 analyzed the speed and size of the response of lending rates to changes in money market rates for about 30 countries,
both industrialized and developing and including two of the transition economies (Hungary and Poland). The study found the effect on lending rates to be well below average, over all time horizons, for both transition countries, with the exception of the long-run response for Hungary, which was close to the average. Though the study analyzed several factors contributing to the weak response of lending rates to changes in money market rates, two may have been particularly important in the case of transition economies: the low elasticity of the demand for loans to changes in interest rates, which reduces the cost of keeping lending rates out of equilibrium; and a still oligopolistic market structure, resulting in stickiness in adjusting lending rates due to uncertainty about the response of competitors. Some additional weight to the latter argument was provided by evidence that Polish banks, though they were very slow in adjusting lending rates to money market rates, adjusted lending rates very quickly to a change in the National Bank of Poland discount rate as the formal announcement provided a clear signal for all to adjust. It is interesting that, while the functioning of the banking system continually improves, evidence of the lack of response to monetary policy has been repeated recently as the NBP in late 1996 engineered an increase of 2.5 percentage points in market rates, but without a change in headline rates and with only limited effect on lending rates.

Overall, what can be said of the experience so far? There has clearly been substantial progress in the legal and regulatory framework. The Central European banking systems, in particular, now conform to EU standards in terms of minimum capital, capital adequacy ratios, most exposure limits, and licensing practices. Internationally accepted standards of accounting have been adopted, and with them more open disclosure requirements to enhance monitoring capacity. Continuous progress is also being made with supervision, though there remain weaknesses. However, as the examples above show, much progress remains to be achieved in banking practices themselves to enhance the efficiency of banking systems; focus on EU accession can be expected to lead to continued improvements in governance, management, efficiency, service provision, and financial performance.
Mrs. Gronkiewicz-Waltz commented that, for the purposes of their sale, banks in Poland were valued according to their distinctive characteristics. The main component of the privatization policy was that it was not certain for any specific bank if it was going to be rescued and then sold or if the authorities would let it fail. In the case of state-owned banks that were not solvent, the authorities issued bonds. In the case of small- and medium-sized banks licensed after 1989, a bank audit was conducted, on the basis of which a foreign investor could decide whether to take control of the bank or to invest money into a bank that would be restructured.
Few would argue against the pivotal role of the banking industry in developing countries. The pioneering work of McKinnon and Shaw in the early 1970s clearly pointed this out by showing that financial deepening is needed to improve and sustain economic growth in developing countries.¹ They observed that poor economic resilience against external shocks is due to shallow financial markets, or financial repression characterized by excessive regulation and control of interest rates and exchange rates. In this case, adjustment policies affecting the financial sector, particularly the banking sector, can bring about a more efficient allocation of funds, and the increased demand for investment can then be satisfied internally by the higher savings generated.

The Indonesian financial sector has undergone a major and rapid transformation under deregulation and regulatory reforms. The banking system, in particular, has developed in five stages. The first stage was the rehabilitation period between 1967 and 1973; the second stage was the ceiling period from 1974 to 1983; the third was the growth period from June 1983 to October 1988; the fourth was the acceleration period from October 1988 to February 1991, arising from extensive deregulation; and the fifth stage is the consolidation period since 1991 in which prudential principles were introduced. From a repressed system in the 1960s, the financial and banking system

developed into a relatively open and competitive market by the 1980s and 1990s.

The reforms reflect, on the whole, a consistent desire to achieve three basic objectives: (i) to move toward a predominantly market-based financial system; (ii) to provide effective protection as needed for the general public, so that individuals could benefit more fully from the services offered by the financial system; and (iii) to build a financial system that would support the stable and healthy growth of the national economy. As the past two decades have shown, however, reforming a financial system is fundamentally a double-sided process. On the one hand, it involves the removal of direct controls over prices, quantities, and activities, combined with an easing of the process that governs the entry of new firms. The result should be economic choices determined mainly through the interaction of market forces. This is true for Indonesia in the 1980s. On the other hand, it requires the imposition of prudential regulations to ensure that clear and sufficient information is available to all, reducing excessive risk and minimizing opportunities for fraud and manipulation at the expense of the general public. This is the case for the 1990s.

**Banking System and the Economy**

**Growth of the Banking System**

From its infancy at the beginning of the first long-term development plan initiated some thirty years ago, the Indonesian banking industry has been the cornerstone of the nation's economic growth. The development of the banking system gained impetus when the country embarked upon a series of financial reforms in 1983. The reforms started with interest rate liberalization in June 1983, followed by reforms of institutional structures in October 1988, reforms within the credit system in January 1990, improvements in prudential regulations in February 1991 and May 1993, and finally the launching of "self-regulatory banking" to sustain the application of prudential principles by banks in 1994 and 1995. The thrust of these reforms was directed toward enhancing the soundness, stability, and competitiveness of the Indonesian banking system, which in turn would promote the mobilization and channeling of funds to various investment projects.

These structural adjustments have brought impressive results. The Indonesian banking industry has registered strong growth in terms of the number of banks and offices as well as the mobilization of financial resources. The number of commercial banks has almost doubled in the last eight years, climbing from 124 banks in October 1988 to
240 in December 1994 and remained relatively constant at 239 in December 1996. Bank offices increased from about 1,900 to more than 6,000 nationwide. At the same time, funds mobilized by banks increased dramatically from US$21 billion in December 1988 to US$121 billion in November 1996, while total bank loans surged from US$28 billion to US$124 billion. Off-balance-sheet activities have also demonstrated remarkable growth, particularly in the 1990s.

Growth has differed across types of banks. The share of state banks in total commercial bank assets declined from 70 percent in 1988, to 52 percent in 1993, to 42 percent at the end of 1996. At the same time, the two fastest growing banks, both private, achieved over 450 percent growth from the end of 1990 to December 1996. Nevertheless, the industry remains fairly concentrated, with the five largest banks accounting for 39 percent of assets in October 1996. Similarly, the top ten banks held 58 percent of assets and the top fifteen banks 68 percent.

Financial reforms have fostered more effective market mechanisms within the banking system, thus enhancing its function as a financial intermediary. Efforts to deregulate Indonesia’s banking industry have led to increased competition among banks, in turn prompting greater efficiency. Banks are now more independent, being able to set their own business strategies. They have become more market oriented; this is reflected in the prices banks have established for deposits and loans as well as the variety of new financial products introduced to customers. Bank financing for the business community has now gone beyond traditional bank loans to other forms of financing, such as commercial paper. Off-balance-sheet operations, particularly derivative transactions, have grown significantly. As anticipated, this greater dependence on market forces has allowed Indonesia’s financial markets to mobilize and allocate the nation’s financial resources more efficiently.

The rapid development of the financial sector is encouraging since it has given the banking sector more opportunity to strengthen its role as the primary provider of financing for Indonesia’s economic development. Rapid development has also posed more complex challenges to the banking sector in Indonesia, and banks have been making adjustments in order to comply with prudential banking regulations and resolve their problem loans.

**Economic Performance**

The Indonesian economy has been widely hailed for its four success stories since 1966: first, the rapid suppression of hyperinflation and transition from a controlled to a market-based economic system; sec-
ond, successful exchange rate management; third, the rapid transition from heavy dependence on oil revenues in the 1980s; and fourth, prudent macroeconomic management. In recent years, Indonesia has been regarded, along with our Association of Southeast Asian Nations partners, as one of the high-performing economies in Asia.\(^2\)

As a result of sound macroeconomic policies accompanied by a series of market-oriented reforms to better the environment for business activities, Indonesia’s economic fundamentals have been much stronger. In the past decade, the economy has improved substantially, with growth averaging 7.5 percent annually in real terms and per capita income at more than US$1,000 in 1995, up from a little over US$500 in 1985. Strong growth also has been helped by a relatively low inflation rate.

Fundamental changes in Indonesia’s economic structure have accompanied this heartening economic performance. First, the role of the private sector in the national economy has grown, which is partly reflected by the increase in the ratio of private sector investment to GDP, from 25 percent to more than 32 percent. The second fundamental change is the shift from agriculture to manufacturing. The contribution of manufacturing to GDP increased from 17.5 percent in 1985 to 24.0 percent in 1995, while the contribution of the agricultural sector decreased from 25 percent to 16 percent. The third fundamental change is that the Indonesian economy is becoming more integrated into the world economy. The export-to-GDP ratio rose from 20 percent in 1985 to 25 percent in 1995, while the ratios of foreign direct investment to GDP and to exports rose from 0.6 percent and 3 percent, respectively, to 3 percent and 13 percent. The level of integration is also visible in the ratio of banks’ foreign liabilities to GDP, which rose from 0.6 percent in 1985 to more than 6 percent in 1995. Last but not least, Indonesia has recorded a shift away from oil exports toward non-oil exports, from approximately 30 percent in 1985 to 75 percent of total exports in 1995. Within the government’s budget, the proportion of non-oil revenue has surged as a proportion of domestic revenues, climbing from less than 30 percent to around 76 percent.

Given the ascending role of the private sector, macroeconomic management is increasingly dependent on market mechanisms, and the government increasingly directs its efforts at creating and maintaining a level playing field to ensure that those mechanisms work

smoothly and fairly. Moreover, the integration of Indonesia’s economy into the world economy has necessitated more sophisticated macroeconomic management and reduced the government’s direct role in economic development. In the past, the private sector did not have a significant impact on national efforts to maintain economic stability. However, as the private sector’s contribution to GDP has risen, the private sector—particularly large-scale businesses—can no longer disregard the implications of their activities on macroeconomic stability. To achieve sustainable growth, public policies must address the micro level.

**Stages of Deregulation and Regulatory Reforms**

As background to the measures taken since the 1970s, let me briefly relate the history of financial deregulation over the past thirty years. During the 1967–73 period, a systematic effort was made to rehabilitate the Indonesian banking system in accordance with the more market-oriented outlook of the New Order administration. The main objective of the rehabilitation was to halt hyperinflation by stringent fiscal controls and then to create a banking system that could play an active role in the task of development.

**Rehabilitation Period, 1967–73**

The Commercial Banking Act was promulgated in 1967 to provide a legal basis for the activities of commercial banks. Similarly, the Central Banking Act was promulgated in 1968 to lay down the principles for central bank operations and bank supervision. These two laws helped to create a conducive environment for the rehabilitation of the banking system and future growth.

To support further development of the banking system and increase the financial resources available to banks, the government introduced several additional measures, such as raising interest rates on time deposits and subsidizing the state-owned banks to cover part of the interest payment on deposits; insuring saving accounts and lotteries for savers; authorizing transfers from the government development budget to state banks for making longer-term loans; allowing the central bank to participate in the financing of longer-term loans by state

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3The macroeconomic record indicates that internal and external sectors of the economy were relatively stable when major financial sector reforms were introduced in 1983, 1988, and the 1990s.
banks; and offering substantial central bank credits to state banks to finance import of aid goods.

**Ceiling Period, 1974–83**

Under the strains that developed in 1973–74, especially increasing oil prices, these measures gave way to direct and complex central bank controls. In April 1974, to avoid further inflationary pressure and macroeconomic instability due to excessive liquidity, the central bank abandoned indirect control and reverted to direct control. A new system of credit ceilings was introduced as part of a package of monetary measures, which also included a steep increase in nominal interest rates. Three major instruments of monetary policy were introduced in 1974: (1) the system of credit ceilings for individual banks, with subceilings for various loan categories; (2) the maintenance, and even extension, of the rediscount or refinancing mechanism to allocate credit and subsidies for priority sectors in the economy; (3) control over the interest rates charged by state-owned banks, though private banks were free to set their own interest rates.

Credit ceilings for individual banks were adjusted and redistributed during the year to reflect changes in credit demand. The central bank allocated significant resources to administer this very complicated ceiling administration. However, the ceilings were flexible and continued to increase to accommodate the demand for loans and to maintain adequate economic growth. To allocate credits, banks were asked to loan to selected priority sectors at relatively low rates. These loans were eligible for rediscount or refinancing from the central bank, Bank Indonesia, at a highly subsidized rate.

These policies, as reported by many studies, exerted a strong influence on the evolution of the banking system, leading to a buildup of excess reserves and producing some undesirable side-effects. In particular these policies reduced the incentive to mobilize savings, altered the structure of lending rates, and contributed to the segmentation of loan and deposit markets.

**Growth Period, 1982–88**

By 1982, worsening oil prices and worldwide recession had further undermined Indonesia’s balance of payments and fiscal balance, prompting a series of macroeconomic adjustments. One of the most important steps was the 38 percent devaluation of the domestic currency (rupiah) in March 1983 to accommodate external pressure. In addition, the government began to promote the mobilization of
domestic savings to maintain investment in the face of tightening external constraints. There was also growing concern about the need to provide banks with more flexibility in the allocation of credits, with the goal of increasing efficiency.

In August 1982, Bank Indonesia cut back on the provision of directed credits for some low-priority sectors. This was followed in June 1983 by more substantial reductions in the utilization of directed credits and a hike in their interest rates. At the same time, the central bank announced the elimination of ceilings on lending and interest rates both for lending and deposits.

Since the elimination of loan and deposit ceilings, the government has heavily relied on indirect monetary management. An open market mechanism was set up, and monetary instruments were introduced. In February 1984, Bank Indonesia initiated the sale of central bank certificates, or Sertifikat Bank Indonesia, to banks and nonbank financial institutions as a means of mopping up excess reserves. In February 1985, money market securities, or Surat Berharga Pasar Uang, were introduced as a means of overcoming the liquidity shortage of banks and nonbank financial institutions.

**Acceleration Period, 1988–90**

The success of mobilizing domestic funds in the growth period inspired the government to give banks an even wider role in the economy, mainly because of domestic macroeconomic problems and the global recession. During 1988–90, the reforms focused primarily on the structure of the financial system. The main aims were to promote competition within the banking industry via new entry, expansion of activities, and greater autonomy in decisionmaking. In addition, to promote confidence, the central bank introduced tighter prudential controls over foreign exchange positions, capital positions, and lending limits.

To achieve these goals, new banking licenses were made available to those firms meeting the new minimum capital requirements; foreign exchange licensing was simplified; banks were permitted to open domestic branches without prior approval but subject to standards of prudential soundness; foreign joint-venture banks were authorized to extend branch networks; limits were relaxed on the activities of banks and nonbank financial institutions; state enterprises were allowed to hold up to 50 percent of the financial assets in private banks; and the burden of monetary control was lowered by a reduction in reserve requirements from 15 percent to 2 percent of deposits. Efforts to promote competition were coupled with improvements in prudential
supervision of banks. New regulations limited lending to persons, firms, or groups to 20 percent and 50 percent of equity.

These reforms were joined in December 1988 by those stimulating the capital market and other financial institutions, such as new regulation covering the establishment of multifinance companies (leasing, factoring, venture capital, credit cards, and consumer finance). In March 1989, further regulation helped refine prudential regulation by clarifying, among other matters, lending limits, bank ownership and mergers, definition of capital, reserve requirements, investment in stocks, and restrictions on external borrowings and net open positions.

In January 1990, the government introduced changes to the credit sector. The priority programs launched since the 1970s were trimmed. As a direct result of the deregulation, interest rates moved closer to the market level and the portion of credit available for rediscount or refinancing was lessened. The mandatory, subsidized credit insurance was abolished. All these measures provided additional incentives for banks to exercise greater care in selecting and monitoring their borrowers. Yet, the rapid development and unanticipated growth of the banking sector, especially in the acceleration period of 1988–90, led to circumstances in which prudential rules lagged behind market growth.

Consolidation Period, 1991–Present

To avoid further instability in the banking and financial sector, new prudential standards were promulgated in February 1991. They allowed the central bank to review its banking supervision policy, and new professional standards for bank management were also set. To cover increasing bad debts, loan loss provision standards were overhauled. The regulations brought in more quantitative evaluation of bank soundness based on measures of capital, asset quality, management, profitability, and liquidity. Finally, the most important measure was that banks would be obliged to adopt the risk-based capital adequacy standards as stated in the Basle Accord. Minimum bank capital would be 8 percent of risk-based assets.

In May 1993, some improvements (often dubbed as modifications) of bank regulation were undertaken. They were expected to stimulate further lending activities in the short run. The modification of the prudential standards included phased deadlines for compliance with the legal lending limit and a modified formula for the capital adequacy requirement. Through these provisions, the previous restriction of group lending to 50 percent of capital was reduced, with implementation to be accomplished in phases over roughly the four years to
March 31, 1997; within that period, group lending had to be reduced to 35 percent of capital by December 31, 1995. The existing 20 percent limit on individual lending remained unchanged; however, the legal lending limit for parties affiliated with the bank was reduced to 10 percent of bank capital. (Affiliated parties are defined as shareholders owning 10 percent or more of the paid-up capital of the bank; members of the boards of commissioners or directors; close relatives of such parties; other bank officers; and companies in which the parties previously mentioned hold an interest, whether jointly or individually, or 25 percent or more of the paid-up capital.)

This represented a significant change in Indonesia’s prudential regulations, and the banking authorities felt it would require a lengthy period of compliance. The country’s developing capital market is considered incapable of providing for some time the necessary volume of alternative funding for groups and insiders currently borrowing in excess of these new lending limits. The authorities feel confident, however, that the flourishing capital market will provide an alternative source of funding in the future, one that will enable group borrowers not just to maintain current volumes of funding, but to expand their business activities without continuing to rely so heavily on the banks.

In 1994 and 1995, in line with the effort to strengthen the application of prudent principles, Bank Indonesia encouraged banks to adopt “self-regulatory principles.” Banks are asked to have regulations, systems, standards and procedures, and policies to ensure that their operations accord with sound operational and prudential principles. In this regard, Bank Indonesia issued some guidance concerning “Bank Annual Business Plans,” “Annual and Published Financial Statements,” “Guidelines for the Formulation of Bank Credit Policy,” “Standard Practices for the Bank Internal Audit Function,” “Guidance for the Uses of Information System Technology,” and Guidance for Derivative Activities.”

In regard to “Bank Annual Business Plans,” banks are urged to conduct their operations on the basis of thorough planning and compliance with prudential principles and banking norms. Banks are also required to prepare more detailed plans concerning lending to related parties, taking into account available capital and possible risks. Credit plans covering lending to major borrowers, connected parties, and companies owned by the bank must detail the use of the credit, the business activity, the average repayment period, the value of collateral in terms of real assets, and the percentages to total credit and to capital at the end of year concerned.

The provision on “Annual and Published Financial Statements” is designed to ensure that financial statements present a more informa-
tive and realistic picture of the financial condition of the bank (disclosure principles), as well as its compliance with the accounting standards for banking and synchronization with the requirements of the Capital Market Supervisory Agency. All banks must have their annual financial statements audited by public accountants approved by Bank Indonesia and then published.

The provision on “Guidelines for the Formulation of Bank Credit Policy” is designed to improve compliance with prudential lending principles. These regulations lay down minimum standards for credit policies to guide banks in formulating credit policies. These guidelines define requirements as regards a statement of prudential principles, the organization and management of the credit function, credit documentation and administration, and credit supervision, as well as resolution of problem loans. The credit policy guidelines formulated by each bank become binding requirements subject to regular monitoring by Bank Indonesia. Banks must also establish a written credit policy. Credit policy plays a key role in support of these measures, as it guides all areas of operation relating to sound credit that support bank profitability.

The provision on “Standard Practices for the Bank Internal Audit Function” is aimed at strengthening the internal audit function of the bank. These standards lay down the minimum requirements for the internal audit function and for aspects related to the implementation of this function. In this regard, banks are required to establish and implement an internal audit charter, audit committee, and internal audit unit as well as an internal audit manual. By adopting the standards, commercial banks in Indonesia will have a common basis for protecting the interests of all parties involved in the banking system.

The provision on “Guidance for the Uses of Information System Technology” is aimed at improving the efficiency of information technology and electronic banking services and to emphasize that bank management is fully responsible for establishing policies relating to control and security of a bank’s information system. Banks may use information technology to process financial data and perform electronic banking services. The systems may be provided by the bank itself or contracted to another party (outsourced), but there must be proper supervision and security, and the systems must protect bank secrecy. Therefore, banks must maintain strict control over the systems to minimize risks to the interests of the bank and its customers. To ensure continuity of bank operations in the event of system failure, banks must also have a proper and tested disaster recovery plan.

The provision on “Guidance for Derivative Activities” is expected to provide appropriate guidance for banks in dealing with derivatives
Banking Sector in Emerging Markets: The Case of Indonesia

trading. Banks in Indonesia have recently become involved in derivative transactions with the purpose of hedging or offsetting risks through interest rate and currency swap transactions or for speculation. The risks associated with derivative transactions are related to the fluctuation of exchange rates, interest rates, and prices of securities and commodities. So far, few Indonesian banks have suffered losses from derivative transactions. However, overall derivatives activity in Indonesia is still quite small and reportedly concentrated among the banks that should be best equipped to assess and cope with the risks.

Lessons Learned

Indonesia has learned much from its recent adjustments and reforms.

First, it is vital to assess the initial condition of an economy before determining the forms and scope of adjustment policies. Measures pursued in one country may not necessarily be applicable to others. The same also applies to the causes of these conditions and to the objectives of the adjustment policies. Therefore, the terms used to justify adjustment policies often vary from one country to another. In Indonesia, because of initial conditions—the high economic cost of the bureaucracy and arduous government regulations in various sectors—the adjustment policies have focused on deregulation and debureaucratization. But this does not mean that reregulation is out of the question, especially considering structural changes that may occur with the advancement of the economy and modernization of the financial sector.

Second, regarding the sequencing of adjustment policies, there has been ongoing debate—both theoretical and practical—as to which sector should be liberalized first. Various models have been advanced in the literature, with trade liberalization either preceding, simultaneously adopted with, or following financial reforms. McKinnon, for one, argued that adjustments should not be undertaken simultaneously. Yet, it is difficult to make a generalization since the economic conditions vary across countries. In addition, theories on sequencing often disregard preconditions and rarely provide sufficient alternatives for policymakers deciding on a course of adjustment.

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Third, one may say that Indonesia’s reform was mostly reactive. This is undeniable and reflects the belief that every situation is different so that a particular situation never properly matches a particular policy. A case-by-case approach is therefore appropriate in real world circumstances so that the authority can move expeditiously to address immediate challenges. It is even said that a difficult situation produces a good policy. The basic principle, therefore, is not how to justify the political decision to reform the financial sector or the real sector, but on what the underlying circumstances of the overall economy necessitate. Indeed, in Indonesia, reform remains firmly on track because of the continuing need to keep pace with changing domestic and international conditions.

Fourth, there is another very important lesson from the financial reformation. The abrupt removal of barriers to entry into the banking industry, as stipulated in 1988, produced an astonishing effect, as the banking industry moved forward by leaps and bounds. Accordingly, banks were encouraged to discover new methods to mobilize funds and at the same time to extend new loans intensively, which, to a large extent, contributed to the upswing in the economy, leading to the problem of economic overheating. As for micro management, the credit expansion partly caused by the oversupply of funds produced other adverse effects in the years that followed, in particular the burgeoning problem of bad debts. In retrospect, the reformation was probably too fast and too premature because the tremendous expansion in the banking industry was not accompanied by an appropriate level of compliance with prudent banking principles. Corrective measures were instituted in 1991 to prevent further deterioration in bank balance sheets. This experience suggests that while the financial reformation has been instrumental in promoting the banking industry, the timing of implementation proved to be crucial to ensuring the expected outcome. Prudent banking principles should be established prior to financial reformation, or at least established in tandem. Prudential aspects of banking operation are needed to cope with increasing competition in the era of globalization. This is partly why Indonesia has made prudential principles a priority not only in the banking industry but in economic management as a whole.

Fifth, since financial adjustment measures were designed to deregulate most monetary and banking activities, the ownership of instruments and regulation by the central bank has diminished. Therefore, moral suasion is gaining importance. Recent success in controlling monetary aggregates is attributed in part to Bank Indonesia’s vigilance in moral suasion. For monetary management to be successful, the central bank has to go beyond managing the growth of reserve...
money through conventional open market operations and include measures to contain the growth of factors affecting monetary aggregates. Since bank credit expansion was the main force behind the growth of monetary aggregates, Bank Indonesia has persistently worked through moral suasion programs to influence banks in their lending activities.

Sixth, one of the important measures for moral suasion in Indonesia is regular monthly meetings with the banking sector, at which the central bank provides a macro picture of the economy and raises some critical issues for banks to consider, especially signs of emerging overheating. Next, the central bank shares with banks selected data indicating the currently vulnerable sectors so as to persuade banks to adjust lending to those sectors. Further, banks are asked to submit their credit plans, and the consequences of their credit expansion plans are reviewed with respect to both macroeconomic stability and the banks' financial condition. Thus, Bank Indonesia has tried to achieve better macroeconomic management through a program of linked macro and micro management that relies on closer coordination between the central bank and the banking community.

Seventh, regulations themselves are not enough to ensure sound bank operations. The effectiveness of regulations depends on bank management. Therefore Indonesia requires banks to adopt stricter self-regulatory principles by taking into account the risks that may arise in the course of business. By applying self-regulatory principles, banks no longer conduct operations solely on the basis of what is allowed or not allowed in the general regulations but, more important, apply internal regulations that specify detailed applications of general regulations.

Finally, it is worthwhile to recall that the changes in the Indonesian financial and banking sectors have not been random; they are the product of several factors operating simultaneously. In particular, the extensive deregulation since 1983 has been the most powerful action taken to date, strengthening competitiveness and financial sophistication.

**Concluding Remarks**

We are living in an increasingly uncertain and competitive world economy. Without a stable macroeconomic environment, there is little hope of achieving sustainable growth in the financial sector. On the other hand, macroeconomic policies alone are not fully adequate, and monetary (macro) policy can be effective only if supported by a sound, stable, and competitive banking system. These two, if com-
combined, represent the sufficient conditions for effective and sustainable implementation of macro, micro, and sectoral policies. The compatibility of the macro-micro-sectoral linkage has been Indonesia’s main challenge.\(^5\)

The most basic foundation of banking is public trust: depositors’ willingness to place their savings in banks because they believe that the funds will be protected and rewarded. Therefore, the overall goal of banking regulation is to maintain public confidence in the banking system by limiting the risk exposure of individual banks and isolating bank failures to avoid a contagion effect within the system. To do this, the Indonesian banking authorities have attempted to make sure that each individual bank operates in a safe and sound manner. The main tool for prompt detection of potential bank failure is on-site bank examination and off-site bank supervision. The failure-prevention regulation is then manifested in prudential measures, such as capital and liquidity requirements, asset quality standards, and compliance with laws and banking regulations. However, the ongoing transformation and globalization of international financial markets and free trade agreements, which bring with them increasing uncertainty, risk exposures, and competition, require more effective and efficient risk management. This encompasses general management (such as the assessment of the quality of banking organization, strategy, structure, systems, human resources, leadership, and corporate culture) and risk management. These foundations require various measures, including the settlement of problem loans and problem banks.

As is well known, the more firms that are in the market, the smaller is the probability of anticompetitive behavior and the greater is the chance of high-quality products and services provided at competitive prices. Indonesia must continue to work toward this goal, and fine-tune the entry-exit rules within the industry. By attaining the optimum number of banks in the industry, the country will be able to increase competitiveness and efficiency as well as the quantity and quality of intermediation services without diminishing the importance of safety and stability. In this regard, the effort to restructure the banking system will be continued until a more optimum banking structure is achieved. For this purpose, greater incentives will be offered for banks to merge and consolidate, and higher capital requirements will be imposed.

\(^5\)The importance of this macro/micro policies coordination was also emphasized by key speakers at the recent seminar on “Macroeconomic Issues Facing ASEAN Countries” held jointly by Bank Indonesia and the IMF.
Governor Djiwandono’s presentation demonstrates the very considerable progress that Indonesia has made over the past fifteen years to develop a competitive banking system. Key steps include the abolition of ceilings on bank interest rates and lending activities from 1983; the liberal granting of licenses for new banks from 1988; and the implementation of a modern prudential regulatory and supervisory system from 1991.

The measures were entirely consistent with the needs of a rapidly expanding economy that is largely free of controls on current and capital international transactions. While the authorities adopted a gradu­alist approach—despite the more advanced financial structures that were in place in some neighboring ASEAN countries—their pursuit of reforms has strengthened the banking structure and enhanced the role of Jakarta as a financial center.

These comments focus on three aspects of the reforms, each of which has implications for other emerging market economies. First, the linkage between macro stability and banking soundness, especially the possibility of overheating because of excessive credit growth. Second, the benefits of a well-developed regulatory framework, including transparency to promote market discipline. Third, the outstanding issues that need to be addressed to enhance bank soundness, including methods to deal with problem banks.

**Macroeconomic Stability and Banking Soundness**

The Indonesian authorities have pursued prudent financial policies and structural reforms for the past three decades. This has helped to secure annual real GDP growth of 7–8 percent, with low inflation and a sound external payments position. Indonesia’s banking system has clearly benefited from this, reinforcing a key lesson that banking sector crises can generally be avoided in the absence of serious macroeconomic imbalances.

Savings and investment in excess of 30 percent of GDP contributed to the impressive growth performance. Notwithstanding recent growth of the equity and securities markets, intermediation conducted through the banking system remained high, as in other emerging-market countries. Bank deregulation promoted efficiency and lowered
transaction costs, facilitating better terms for savers and more efficient allocation of investable funds.

The authorities recognized early that the scope for direct controls and government intervention would become circumscribed as reforms were implemented. Some indirect instruments of monetary control were introduced, including central bank certificates to permit open market operations. However, the authorities continued to rely also on moral suasion to restrain credit growth.

Another problem was that the quality of loan portfolios deteriorated, as banks gave inadequate attention to risk appraisal. State-owned banks continued to lend in response to political direction; private banks established by industrial conglomerates provided intragroup finance; and many banks expanded lending to the real estate sector. The difficulties were initially masked by an easy monetary stance, but were exposed when monetary conditions were tightened and higher interest rates led to an increase in nonperforming loans.

Indonesia's experience in the 1980s does not suggest, however, that reforms were premature or too fast. Rather, it underlines the need to develop concurrently with liberalization effective market-based instruments of monetary control and prudential rules to prevent unduly rapid credit growth or risk taking that could undermine banking soundness.

The openness of Indonesia's financial markets contributed to large increases in foreign private capital inflows during the 1990s. This further underscored the importance of banking soundness to reduce the possible impact of external shocks, especially the need to contain foreign exchange risk.

**Bank Regulatory and Supervisory Framework**

Bank Indonesia's capacity to prevent banking problems was greatly enhanced with the adoption of prudential rules and the reorganization of its own supervisory departments in the early 1990s, in accordance with IMF recommendations. Measures included limits on lending to individual borrowers and net open foreign exchange positions, more stringent internal audit procedures, the adoption of higher minimum capital requirements and capital adequacy rules that exceed the Basle standards, and the use of a CAMEL-type rating system to detect stress in banks. As a result, the nonperforming loans of the banking system have been reduced over the past several years.

Nevertheless, a generally satisfactory regulatory system does not by itself ensure banking soundness; it is crucial that, in addition, super-
visors have sufficient authority to ensure observance of the agreed standards. In particular, they must be able to undertake the comprehensive evaluation of bank assets to assess solvency and determine that problems are not concealed by poor accounting practices. While the extent of nonperforming loans has been contained in Indonesia, the classification system may still mask the quality of credit portfolios, including restructured loans.

The regulatory system must also be continuously updated and adapted to meet evolving needs. Refinements in Indonesia might include better monitoring of risks associated with new banking products, including options and derivatives, and regulation of those financial institutions affiliated with banks that may be used to circumvent prudential rules. Another issue is how to provide greater incentives for improved behavior by bank managers, in combination with penalties for the failure to fulfill their legal responsibilities, so that greater self-regulation reduces the need for central bank control. Transparency and disclosure are key mechanisms to change the incentive structure for better performance, and the New Zealand experience (see Chapter 16) provides useful guidance.

Remaining Issues

A key challenge now facing Bank Indonesia is how to take firm control over the resolution of problem banks. In the past, the clear expectation that the authorities would not allow failures reduced the impact of market forces. The policy of nursing weak banks created opportunities for lending without due regard to risk assessment and raised concerns that the impact of tighter policies on their cost of funds and loan portfolios could delay policy actions, as well as undermine the fiscal position. Regulators should strive for market-friendly rules that allow competitive banks to prosper and avoid favoring particular institutions or protecting the weak.

A welcome initiative was the issuance in December 1996 of the presidential regulation containing detailed procedural guidelines for the closure of banks. A firm bank exit policy—with protection for small depositors—will eliminate deficiencies in the internal governance of banks and moral hazard by allowing the central bank to modify its role as a guarantor. The Polish experience (see Chapter 14) demonstrates the benefits that accrue from adopting a clear exit strategy for deficient banks.

Competition in the banking sector is still constrained by the support for state banks and restrictions on the operations of foreign banks. The government’s backing of state banks creates an uneven playing field;
divestiture of shares in one of the largest state banks in late 1996 was a success and opportunities for further sales should be exploited. Removal of the limitations on foreign ownership of local banks and on the branch structures of foreign banks would further promote the development of a fully efficient banking system. However, now that steps have been taken to improve the prudential system, the optimum structure of the banking system will best be determined by market forces.
Part VII

Banking Soundness: Official Action and Market Discipline
Banking soundness and the role of the market is a subject of particular relevance to New Zealand, given its adoption of a banking supervision approach that places considerable emphasis on the role of the market in promoting a sound financial system. Initially formalized in 1987, New Zealand’s approach to banking supervision was relatively orthodox between 1987 and the end of 1995. It involved minimum capital requirements (based on the Basle Accord); limits on the amount that banks could lend to individual customers and related parties; a limit on banks’ open foreign exchange positions; off-site monitoring of banks, using information provided privately to the central bank, the Reserve Bank of New Zealand; annual consultations with the senior management of banks; and a range of powers to enable the Reserve Bank to respond to bank distress or failure.

However, that system of banking supervision differed in some important respects from the approaches adopted in many other countries. In particular, New Zealand’s supervisory framework did not involve the licensing or supervision of deposit taking or the business of banking. Only those entities wishing to use the word “bank” in their name were subject to supervision. The country also did not have deposit insurance and did not seek to protect individual depositors. Instead, it sought to protect the financial system as a whole. Finally, New Zealand did not have on-site examination of banks. (These distinguishing features continue to apply under the new supervisory framework.)

In late 1991, the Reserve Bank commenced a major review of its banking supervision arrangements. The review was motivated by a
number of concerns. Probably the main reason was a concern that conventional approaches to banking supervision make insufficient use of market discipline as a means of promoting a sound and efficient financial system. There appeared to be considerable scope to use market disciplines to promote systemic stability, in particular to hold the directors and management more accountable for the sound management of their bank. The Reserve Bank also wanted to improve the market’s ability to make well-informed decisions as to which banks they would do business with. It was felt that a well-focused and comprehensive disclosure regime would go a long way toward achieving these objectives.

Another factor that led to the review of banking supervision arrangements was a concern at the compliance costs and regulatory distortions associated with conventional approaches to banking supervision. This concern reflected the view that banking supervisors tend to have strong incentives to promote a stable financial system, without always having appropriate regard for the costs and distortions such supervision can cause.

There was also concern about the taxpayer risk involved in the traditional approach to banking supervision. Although this risk is present regardless of the form banking supervision takes, it is likely to be greater where the banking supervisor, and only the banking supervisor, has regular access to financial information on a bank. It is also likely to be greater the more intensive is the supervision process. The Reserve Bank wanted to explore ways of reducing the risk of the government being called upon to rescue a bank in distress.

Finally, conventional banking supervision can go only so far in promoting a sound banking system. There are inherent limitations in the extent to which prudential regulation and supervision, even supervision that includes on-site examinations, can minimize the incidence of bank distress and failure. This is evidenced by the fact that countries with intensive supervisory regimes have not been immune from serious episodes of financial distress. Indeed, banking supervision can even increase the risk of bank failure or distress by reducing the incentives for bank directors and managers to make their own considered judgments about what constitutes prudent behavior.

### New Approach to Banking Supervision

In the light of these concerns, and following a lengthy period of review, New Zealand’s authorities decided to place greater reliance on market disciplines through public disclosure by banks, increasing the
accountability of bank directors and management, and reducing the extent of prudential regulation. The new banking supervision arrangements, which came into force on January 1, 1996, reflect these aims.

The new approach differs from the former regime in two main areas. First, a new disclosure regime applicable to all banks has been introduced. The disclosure regime is designed to substantially strengthen the market discipline on banks and sharpen the incentives for the directors and management of banks to manage their banks' affairs in a sound and responsible manner. The second major change involved a reduction in the extent of prudential regulation of banks: the removal of the limit on the amount that banks may lend to individual customers; the removal of the limit on banks' open foreign exchange exposures; the removal of the Reserve Bank's guidelines on internal controls and the associated audit requirements; and the removal of the need for banks to privately report their financial position and risk exposures to the Reserve Bank. In other words, it was felt that the new disclosure regime obviated the need for many of the former prudential controls on banks.

Undoubtedly the feature of the new approach that has attracted most attention is the disclosure regime. Under it, all banks must publish a disclosure statement each quarter. The statements are in two forms: a brief Key Information Summary, aimed at the ordinary depositor; and a more comprehensive General Disclosure Statement, aimed at the professional analyst. The Key Information Summary contains a short summary that covers the bank's credit rating (or a statement that the bank has no credit rating); the bank's capital ratios, measured using the Basle framework; and information on peak exposure concentration, peak exposures to related parties, asset quality, shareholder guarantees (if any), and profitability.

The Key Information Summary must be displayed prominently in, and be available on demand from, every bank branch. The General Disclosure Statement contains more wide-ranging and more detailed information on a bank and its banking group:

- corporate information and some information on parent banks (where applicable);
- comprehensive financial statements (including a five-year summary of key financial data);
- credit rating information (including any changes in the rating in the two years preceding the bank's most recent disclosure statement);
- detailed information on capital adequacy, asset quality, and various risk exposures (including exposure concentration and related-party exposures);
• information on fund management and securitization activities, risk management systems, and a summary of the prudential regulations imposed on the bank by the Reserve Bank; and
• information on the bank’s exposure to market risk, both peak and end of period (and in respect of the full banking book).

The disclosure statements issued by banks are subject to a full external audit at the end of each year and a limited scope audit review at the half-year. Disclosure statements issued at the other quarters are not required to be audited.

One of the most important features of the disclosure framework is the role it accords bank directors. Each director is required to sign his or her bank’s disclosure statements (or authorize someone to sign on his or her behalf) and to make certain attestations in the disclosure statements, including:

• whether the bank is complying with the prudential requirements imposed on it by the Reserve Bank;
• whether the bank has systems in place to adequately monitor and control its banking risks and whether those systems are being properly applied;
• whether the bank’s exposure to related parties is contrary to the interests of the bank; and
• whether the disclosure statement contains all the required disclosures and is not false or misleading.

Directors face severe criminal and civil penalties (including up to three years in jail and personal liability for creditors’ losses) if a disclosure statement is held to be false or misleading.

The new disclosure arrangements are expected to bring a number of important benefits to the New Zealand financial system. First, they are likely to play an important role in strengthening market discipline on banks. Under the new arrangements, the market has considerably greater information on a bank’s financial performance and risk positions than was previously the case. And the information is available more frequently and in a more timely manner. The market therefore has greater scope to react to developments affecting a bank’s financial condition—rewarding those banks that are well managed and penalizing those that are not. The strongest banks are likely to benefit from lower funding costs; weaker banks are likely to be under pressure to strengthen their position. Over the longer term, less restricted markets are expected to make a major contribution to the soundness of New Zealand’s financial system.

Another benefit of the disclosure regime is a growing emphasis on the prudent management of banks. In particular, the disclosure framework clarifies the role of bank directors in ensuring that their bank has
the necessary systems in place to identify and manage the bank’s various business risks and that those systems are being properly applied at all times. As a result, directors appear to be taking greater care to ensure that they adequately discharge their obligations.

Over time, the increased accountability of bank directors is likely to lead to an improvement in the quality of bank boards. Shareholders now face stronger incentives to ensure that the directors of their banks have the appropriate skills, experience, integrity, and judgment to fulfill the duties expected of them.

Another important benefit to flow from the disclosure regime is a reduction in the risk that the government will have to rescue a bank. As a result of the disclosure arrangements, there will be a stronger public perception that the management and directors of a bank have sole responsibility for the management of their bank’s affairs. Moreover, the public now has access to much the same information as does the Reserve Bank, thereby eliminating the monopoly of information that supervisors once enjoyed. Both of these factors should enable future governments to resist the inevitable pressures to rescue a bank in distress or to insulate creditors from losses—at least to some extent.

Although the new supervisory framework places great emphasis on the role that market forces can play in promoting systemic stability, it is important to note that the Reserve Bank of New Zealand has not abandoned its responsibilities for the financial system. It recognizes that, for the time being, systemic stability is best served by a combination of market disciplines and banking supervision. As such, a number of the Reserve Bank’s core functions have been retained.

- It continues to have responsibility for registering new banks.
- Banks continue to be subject to minimum capital requirements (in line with the Basle Accord) and to a limit on lending to related parties. Although disclosure alone would probably ensure that banks would maintain capital at least equivalent to the 8 percent minimum, the minimum capital requirements work to reinforce the credibility of the new supervisory framework, at no additional cost to banks.
- The Reserve Bank continues to monitor banks on a quarterly basis. However, monitoring is now conducted principally using banks’ public disclosure statements, in contrast to the former system of monitoring on the basis of information provided privately to the Reserve Bank. In most respects, banks’ disclosure statements contain information that is more comprehensive and more reliable than the information previously provided to the Reserve Bank.
- The Reserve Bank also continues to consult with the senior management of banks. Formal prudential consultations are held anual-
ly and generally focus on the strategic direction of the banks, major changes in their operations and other high-level issues. In addition, the governor of the Reserve Bank meets with the chief executives of the larger banks on a regular basis to discuss a broad range of issues, including those relating to the banking industry and to the wider economy.

- And, importantly, the Reserve Bank retains a wide-ranging capacity to respond to financial distress or bank failure where a bank's financial condition poses a serious threat to the stability of the banking system.

As with the former supervisory arrangements, the objective underlying the above responsibilities is the promotion of a sound and efficient financial system. Depositor protection does not feature in the Reserve Bank’s objectives.

**Reactions to the New Supervisory Approach**

All in all, the new approach has been relatively well accepted, although it has taken time for that acceptance to be achieved. It is fair to say that, during the review process, reservations about the new approach were expressed from a number of quarters, both at home and abroad. One of the observations was that New Zealand is “free riding” on the efforts of the home supervisors in a situation where most of our banks are subsidiaries or branches of foreign banks. We firmly reject this notion: the new supervisory framework is at least as effective at promoting prudent banking practices as are the more traditional approaches to banking supervision. Moreover, the Reserve Bank is satisfied that the new framework enables it to fulfill its duties as a host supervisor within the terms of the Basle Concordat. In that regard, under the new approach to banking supervision, the Reserve Bank remains well informed of the activities and financial condition of all banks operating in New Zealand and well placed to respond to incipient financial distress where appropriate. Indeed, the disclosure regime provides the central bank (and the public) with information that is more comprehensive than ever before. But it is certainly true that any host supervisor will inevitably rely, to some extent, on the supervision of the home supervisor. After all, this is an intrinsic part of the Basle Concordat. The most a host supervisor can realistically achieve is to promote prudent banking practices in the local operations of the banks within its jurisdiction.

In this context, some commentators have suggested that the Reserve Bank of New Zealand is not well placed to anticipate emerging finan-
cial distress in the absence of conducting on-site examinations of banks or otherwise obtaining private information from banks. Although on-site examinations do increase the information available to banking supervisors, it is not clear that the information obtained from such examinations enables the supervisors to reliably anticipate incipient financial distress. In modern banking, risk positions can and do change rapidly. A week in politics might be a long time, but in banking it is a very long time indeed! And this is increasingly the case. The information obtained from on-site examinations, or from any other source for that matter, can provide a snapshot of a bank’s risk position only at a particular point in time, and even then with respect to a subset of the bank’s business. For these reasons, such information is of limited usefulness in assessing the dynamics of a bank’s risk positions or in anticipating financial distress.

Of course, publicly disclosed information also has these limitations. But at least public disclosure brings with it incentives for the sound management of banking risks. It is not at all certain that the private disclosure of information to a banking supervisor—whether on-site or off-site—creates these types of incentives.

A further concern with on-site examinations or the off-site collection of detailed private information on banks, at least in the New Zealand context, is the risk that these approaches can blur the lines of responsibility for the management of banks. If the banking supervisor has responsibility for regular on-site examinations, it presumably follows that the supervisor also has responsibility for encouraging or requiring a bank to modify its risk positions or make other adjustments to its balance sheet where the supervisor has concerns in relation to the bank’s risk profile. This has the potential to erode the incentives for the bank’s directors and managers to take ultimate responsibility for the management of banking risks, effectively passing some of this responsibility to the banking supervisor. It also has the potential to create public perceptions that the responsibility for managing banking risks is effectively shared by a bank’s directors and banking supervisors. This makes it very difficult for a government to eschew responsibility for rescuing a bank in difficulty.

Any system of banking supervision—even one that relies principally on public disclosure—will inevitably create public expectations that the supervisory authority takes some responsibility for the management of banking risks. And any system of banking supervision creates a risk for the taxpayer in the event that a bank gets into difficulty. In order to minimize these risks, it is preferable to keep the spotlight on the directors and managers of a bank, rather than risk a further blurring of their accountability. Not having on-site examinations, and
not having a regular flow of private information from banks, assists in this regard and reinforces market disciplines on banks.

Another frequent observation is that New Zealand would not have adopted its new supervisory framework had a substantial part of its banking system been domestically owned. It is my firmly held conviction, however, that we would have adopted this approach even if all or most of New Zealand's banks had been locally owned. As noted above, the new regime is more likely to promote prudent banking behavior than the more traditional approaches, and with a lower likelihood of moral hazard and regulatory distortion. In this context, it should be noted that in late 1991, when the review of banking supervision commenced, a significant part of the New Zealand banking system was still domestically owned. Indeed, many of the changes implemented in New Zealand would be of equal relevance to those jurisdictions in which the core of the banking system is domestically owned.

Another criticism of the New Zealand approach is that comprehensive and frequent disclosure can, in some circumstances, exacerbate financial distress rather than promote systemic stability. This is true to some extent. For example, where a bank is required to disclose a loss or a severe deterioration in asset quality, this could lead to a sharp adverse reaction by the market, possibly causing the bank in question to come under liquidity pressure. Of course, this possibility exists with even the barest disclosure requirements—such as with the release of an annual report or six-month interim disclosures. And the risks of adverse market reaction are present even in the absence of disclosure requirements—for example, as a result of market speculation as to a bank's financial condition. Indeed, in some circumstances the disclosure of comprehensive information might actually reduce the risk of the market reacting adversely to misinformation or to an absence of information. In any case, where a bank knows in advance that it will be making adverse disclosures, it would generally have the opportunity to take steps to reduce the risk of an adverse market reaction. These steps would include the disclosure of the remedial measures being taken to address the bank's difficulties. In addition, the risk of a severe market reaction to an adverse disclosure creates the very incentives for banks to ensure that they manage their affairs in such a way that there will be no adverse developments to disclose. In the longer term, therefore, the risk of adverse market reaction could be expected to promote a sounder financial system.

One of the criticisms often made of public disclosure by banks is that the vast majority of depositors will not read banks' disclosure statements. On this assumption, some observers suggest that disclosure is of limited effectiveness. We at the Reserve Bank do not agree.
It is certainly true that most depositors are unlikely to read the disclosure statements, but the disclosure regime in New Zealand is not predicated on the assumption of wide readership by the ordinary depositor. The source of market discipline does not lie in wide public readership. Rather, the efficacy of disclosure rests on the assumption that the statements will be read by the agents of depositors, such as the financial news media, financial analysts, and investment advisers, and by wholesale creditors and fellow bankers. It is the risk of adverse reactions by these types of users that creates the incentives for bank directors and managers to conduct their banks’ affairs in such a way as to avoid the need to make adverse disclosures.

Although the disclosure regime does not rely on the mass readership of disclosure statements by depositors, the Reserve Bank is encouraging depositors to take a greater interest in their banks’ public statements. Over much of last year, it has actively publicized the new disclosure arrangements and prepared a “user’s guide” to assist depositors (and their agents) in understanding the disclosures being made by banks. The user’s guide is now available in every bank branch in the country. While it is unlikely to be a “bestseller,” it is encouraging to note that there has, in fact, been a surprising degree of interest in it from the public. Perhaps, over time, an increasing proportion of depositors will take a keener interest in their banks’ financial condition.

A final observation made about the new framework is that New Zealand’s approach places an excessive emphasis on the role of bank directors—that it asks too much of them. To illustrate this point, during the review process, the chief executive of a major international bank with operations in New Zealand visited the Reserve Bank. He had come to protest strongly the requirement that bank directors sign the disclosure statements every quarter and attest to the appropriateness of their risk management systems. He argued that “bank directors understand absolutely nothing about banking.” This comment is quite unfair about many bank directors, but there is an uncomfortable element of truth in some cases. The blame for this situation almost certainly lies with a supervision regime that assumed too much responsibility for the viability of banks. A regime based primarily on market disclosure and director attestations, combined with some key regulations, will improve that situation.

**Early Effects of the Disclosure Regime**

Although it is far too early to judge the success of the new supervisory approach, there have been some encouraging signs that the disclosure requirements are meeting a number of their objectives.
First, the financial news media in New Zealand have taken a close interest in the new bank disclosure regime. The quarterly disclosure statements have received detailed scrutiny from the news media, resulting in greater and more focused public exposure of banks’ financial results and risk positions. This type of media attention should sharpen the incentives for banks’ directors and managers to manage their banks’ affairs prudently.

A good example of the news media’s interest in banks’ disclosure statements is the story of one bank’s disclosure of its noncompliance with a Reserve Bank prudential requirement. The media’s response to this disclosure was surprisingly intense; most likely the managers and directors of the bank in question were not expecting it. This type of media attention, and the adverse publicity to which it inevitably gives rise, should encourage banks to comply with Reserve Bank requirements in the future. The threat of adverse publicity is likely to be a more effective discipline on banks than are many of the standard supervisory sanctions for breaches of regulatory requirements.

Second, the new regime seems to be strengthening the extent to which banks scrutinize each other’s financial performance and risk positions; banks are making considerable use of the disclosure statements to monitor each other. The additional and more frequent information now available could be expected to assist banks in managing their interbank exposures and in assessing the extent and nature of the business they conduct with each other. Thus, the banking industry itself is one of the most potent sources of market disciplines on individual banks.

Third, anecdotal feedback suggests that the obligations now placed on bank directors are causing some of them to look more closely at their banks’ risk positions. In turn, this seems to be focusing greater attention on the systems in place for identifying and managing risks. Moreover, some banks are taking steps to increase the accountability of various levels of management within their banks. Some have engaged external consultants to review aspects of their risk management systems, and part of the motivation for conducting these reviews seems to lie in the disclosure requirements—particularly the director attestation as to the adequacy of a bank’s risk management systems.

These are all pleasing developments, and they auger well for the success of the new arrangements. But the Reserve Bank is under no illusion that the new arrangements guarantee financial system stability; no system of banking supervision can do that. At the most, the disclosure regime will significantly reduce the likelihood of financial system instability in the future—at lower regulatory, compliance, and taxpayer costs than other supervisory options might be expected to achieve.
Market Disciplines and Banking Supervision

How representative is New Zealand’s experience of using market forces to encourage prudent behavior in the banking sector? Could market disciplines be better incorporated into the supervisory frameworks in other countries with similar success? The remainder of this paper deals with these questions.

At the outset, it should be emphasized that the Reserve Bank is not promoting the New Zealand supervisory model as the ideal model for other countries. It makes no such claims. The New Zealand model meets our country’s particular needs, but it might not necessarily be suitable for other countries. Each country needs to make its own judgment as to the type of supervisory framework best suited to its unique circumstances.

Nonetheless, market disciplines can play a substantial role in most financial systems. In particular, policymakers in many countries should consider the merits of comprehensive and well-focused disclosure requirements for banks. Similarly, there is much to gain from strengthening the responsibilities of bank directors, so that the ultimate responsibility for the management of banking risks resides squarely in the boardroom, rather than balanced between the bank director and the banking supervisor.

The effectiveness of market disciplines will depend on the structure of the regulatory arrangements in place and the nature of the infrastructure within which the banking system operates. In particular, the following factors contribute to the effectiveness of disclosure as a mechanism for promoting systemic stability.

- Market disciplines are more likely to be effective when governments do not insulate depositors from losses—whether explicitly in the form of deposit insurance or implicitly through depositor protection. Understandably, depositors and other creditors are less likely to take an interest in a bank’s financial condition when they know, or have good cause to surmise, that they will be insulated from losses should the bank get into difficulty. In such circumstances, banks that perform poorly are less likely to face adverse market reaction than when creditors operate under the expectation that they are likely to lose money in the event of a bank failure. In part, this is why New Zealand has eschewed deposit insurance or depositor protection and has sought to make it clear to depositors, among others, that they should not expect the government to insulate them from losses in the event of a bank failure.
• It is also fair to say that market disciplines are more likely to be effective when the supervisory requirements applied to banks are kept to a minimum. First, the greater the supervisory requirements, the more likely it is that the market will perceive that the government is underwriting individual banks. And second, the greater the supervisory requirements, the less likely it is that bank directors and managers will view themselves as having ultimate responsibility for the management of their banks.

• The effectiveness of market disciplines will also depend on the structure of the financial system. In particular, market disciplines are likely to be more effective when a bank is domestically owned—that is, when no other bank stands behind it. When a bank is owned by another bank, the market naturally looks to the financial condition of the parent bank when assessing how to react to disclosures made by the local bank. Market disciplines might therefore be somewhat more subdued in a financial system characterized by high levels of foreign ownership than in one dominated by locally owned banks. Having said this, even in a financial system that is largely foreign owned, such as New Zealand’s, there is very considerable scope to use market disciplines to promote improved risk management by the subsidiaries and branches of foreign banks. Indeed, it is possible that New Zealand’s disclosure regime might well be adding to the incentives for overseas parent banks to supervise their New Zealand operations more vigilantly and to give greater attention to their own financial condition.

• The extent of government ownership of the banking system is also likely to influence the effectiveness of market disciplines. The market is simply less likely to impose meaningful disciplines on a bank that is state owned than one that is privately owned—assuming that the market has faith in the financial soundness and political stability of the government in question. However, even when a bank is state owned, a robust disclosure regime might well strengthen the accountability of the directors and managers of the bank, leading to improved risk management within the bank.

• New Zealand’s experience shows that market disciplines are more likely to be effective where banks are required to make comprehensive disclosures on a frequent and timely basis. The disclosure requirements should focus on the key aspects of a bank’s financial performance and risk profile and should be made with sufficient frequency and timeliness as to provide the market with a meaningful basis for assessing a bank’s financial condition.
and comparing one bank with another. Disclosure is likely to be more meaningful and effective if it is supported by robust accounting standards that have the force of law. Certainly, in the case of New Zealand, our disclosure regime has been assisted greatly by the introduction of legally binding and more rigorously drafted accounting standards. Moreover, disclosure requirements should ideally be coupled with an appropriate legal framework governing bank directors—a framework designed to encourage directors to manage the affairs of their bank in a sound manner and to hold them accountable for any breaches of those duties.

• Finally, the effectiveness of market disciplines through public disclosure is influenced by the infrastructure within which banking operates. “Infrastructure” refers to the nature and adequacy of corporate law; the adequacy of accounting standards and auditing requirements; the sophistication and integrity of the accounting profession; and the adequacy of the financial news media and financial professionals. All else being equal, the more well developed the infrastructure, the more likely it is that market disciplines will be effective. This suggests that, in the case of some developing countries, where perhaps the infrastructure is not well developed, the scope for using disclosure to promote market disciplines is somewhat more limited. But even so, there is merit in developing relatively simple disclosure requirements, drawing on international accounting and auditing standards as appropriate, as a means of promoting some rudimentary market disciplines.

There is one case in which it would not be helpful to introduce new disclosure requirements—when the banking system is fragile. Doing so could well exacerbate the weakness. That is why New Zealand introduced the disclosure regime when the financial system was in a strong position and when disclosure would help to maintain confidence in the banking system, not detract from it.

**Conclusion**

Market disciplines can play a powerful role in promoting systemic stability, in conjunction with some degree of banking supervision, and policymakers should give further thought to how market disciplines could be used to better reinforce the efforts of banking supervisors in the quest for systemic stability. However, in giving thought to this matter, it may well be necessary for policy makers to reassess some fundamental aspects of the conventional approaches to banking super-
vision and their relationship to the promotion of market disciplines. These include such issues as depositor protection, deposit insurance, the extent of prudential regulation of banks, and the intensity with which banking supervision is conducted. These are all substantial issues, and there will be continuing international debate as to where the appropriate balance lies. I very much hope that the approach we have adopted in New Zealand will assist in promoting international debate on supervisory options.
New Zealand is a model of economic liberalization. As David Henderson, former head of the OECD’s Economics and Statistics Department recently noted, “... no other OECD country has such a portfolio of liberalizing measures to show.” Indeed, the depth and breadth of reform in New Zealand since 1984 provide a model for all countries, not just OECD members. Nevertheless, many of the world’s central bankers and supervisory authorities, while lauding a number of New Zealand’s achievements in liberalization, have mixed feelings about the new approach to bank supervision that has been adopted by the Reserve Bank of New Zealand. Perhaps, unlike the Reserve Bank, they simply prefer to countenance a relatively high degree of economic regulation. I am inclined, however, to think the doubters are more objective and pragmatic than this. Donald Brash acknowledges that what is good for New Zealand is not necessarily good for other countries. My own view is that, while the Reserve Bank’s approach may or may not be good for New Zealand, it would most likely not be the best approach to adopt in many other countries.

This is not a criticism of New Zealand’s emphasis on public disclosure and market discipline as instruments to achieve a sound banking system. It is widely accepted that public disclosure is, other things being equal, most likely a good thing for any country. The Eurocurrency Standing Committee of the G-10 Central Banks stressed its importance in a report of late 1994, as did the Basle Committee a year later. The real dispute is over the extent to which increased public disclosure can substitute for less supervision of the conventional form. The Reserve Bank’s deemphasis of conventional supervision is not motivated by its direct costs—the wages and overheads of the supervisors. It is motivated by concerns about the potential for large resolution costs of a bank crisis that could result from a lack of market discipline. The central bank’s desire for market discipline is, as an ideal, beyond criticism. The question is whether it is a substitute for certain supervisory activities, as Brash’s paper suggests, or a complement to them.

An analysis of Brash’s interesting paper presents two interrelated questions. First, is the heavy emphasis on bank disclosure in the central bank’s new supervisory approach likely to be good for New Zealand (and, by implication, for countries with a similar degree of structural development)? Second, is this emphasis on bank disclosure
good for other countries, in particular developing and transitional countries?

**New Zealand's Experience**

Brash states that the central bank's new approach to supervision arose from a concern in New Zealand that bank supervision might actually be harmful for bank soundness because it could potentially reduce the incentives for banks to oversee themselves. If this proposition is valid, then one would expect that a reduction in conventional supervision, combined with more public disclosure, would increase both the soundness and the long-run profitability of New Zealand's banks. Since the new supervisory arrangements depend heavily on a prescient market, in principle one could test this proposition, perhaps crudely, by looking at the prices of bank shares relative to the broader stock market index in New Zealand around the time of the changes in the supervisory arrangements. Unfortunately, it is not possible to perform such a test for New Zealand because there is no bank currently listed on the stock exchange that can be considered a "native" New Zealand bank. In any case, it would be interesting to know whether there has been any more rigorous testing to see if there is evidence that the markets expect the new arrangements to be good for banks, independent of other benefits to the nation.

But suppose there were strong evidence that the market thinks the new arrangements are good for bank soundness. It seems that this does not necessarily prove that investors really think the onus is now on them to determine whether their money is safe. The Reserve Bank continues to monitor banks on a quarterly basis, principally using publicly disclosed information to carry out this monitoring. As Brash notes, this information is, in most respects, more comprehensive and more reliable than that previously provided to the Reserve Bank. It could be argued that if the new arrangements better ensure sound banking than the old arrangements did, it is because the new arrangements provide the supervisory authorities with better information than they had in the past. In other words, one suspects that even if information is publicly disclosed, the real concern is its availability to banking supervisors.

Perhaps Brash can dispel this suspicion by elaborating on what the central bank would do if, upon its regular monitoring, it discovered that a bank had been imprudent (or just plain unlucky), and that it would fail. Apparently, the Reserve Bank would do something in its wide-ranging capacity if it thought such a failure would pose systemic
risks. But what if there were no systemic risks? How ruthless would the central bank be as a lender of last resort? And would the government of the day really stand by and do nothing? Any implicit commitment to provide deposit insurance is undoubtedly lower in New Zealand than in most, if not all, other countries. But depositors may not be fully convinced that there really is no such commitment until an uncompensated bank failure takes place.

Brash addresses a number of common criticisms of the New Zealand approach:

- the Reserve Bank “free rides” on the home-country supervision of New Zealand’s largely foreign-owned banking sector;
- on-site inspections are a vital part of any bank supervisory framework;
- public disclosure can exacerbate financial distress;
- the new supervisory arrangements ask too much of the average depositor; and
- the new arrangements ask too much of the average bank director.

A brief response to Brash’s remarks on each of these criticisms follows. Brash tells us that New Zealand would have gone ahead with the changes in its supervisory system even in the absence of such a high degree of foreign ownership. No doubt he would have adopted this stance, but it is possible some others might not have taken such a position. At least some of the policymakers in New Zealand, who supported the shift to an emphasis on disclosure and market discipline relative to conventional supervisory oversight, no doubt did so because they were confident that the home country regulators of New Zealand’s largely foreign-owned banking sector would continue to supervise banks headquartered in their countries.

Brash is correct when he says that the one-year period between on-site inspections is a long span of time in banking. But supervisory authorities do not sit on their hands in the interim. And the period between public disclosure dates in New Zealand—three months—is also a relatively long time in banking. Experience shows that many banks have become insolvent in less than three months. Moreover, an on-site inspection once a year is far better than none at all. In an IMF seminar in January 1997, Gerald Corrigan, former President of the Federal Reserve Bank of New York, emphasized that “The annual on-site inspection . . . is the most difficult and most important feature of an effective system of banking supervision.” This view applies to industrial, as well as developing countries. The United Kingdom, for example, has recently increased the effort it puts into on-site inspections, as has the United States during the last ten years.
Brash acknowledges that comprehensive and frequent disclosure could exacerbate a bank’s difficulties. His counterargument that adverse reactions can occur despite little or no public disclosure is a little lacking in evidence; it is a question of degree. His contention that banks can disclose remedial measures being taken to remedy the situation is more appealing, in part because it is consistent with the presumption that the public can intelligently analyze disclosures. But is the public able to analyze remedial measures as well as it can, say, compare two banks’ capital-asset ratios? And are falsehoods or half-truths in this regard easily detected and punished?

Brash’s point that the average depositor can rely on the media’s analysis of the information disclosed by banks is well taken. And it is a credit to New Zealand that various, hopefully widely consumed, media are undertaking this analysis. But the world is becoming increasingly complicated and specialized, and there are limits to all of this. A particular concern is that a supervisory authority is normally in the best position to analyze banks’ market risk management (and that others’ ability to do this is currently so untested as to justify any moral hazard caused by largely leaving it to the supervisors).

There is, of course, already a standardized method for measuring market risk, whether it be interest rate, foreign exchange, or equity risk. And there is potential to develop a good disclosure format for the use of internal models to measure market risk. But, in its January 1996 Amendment to the Capital Accord to Incorporate Market Risks, the Basle Committee was very clear in its belief that supervisors must monitor risk management. In New Zealand, each bank’s directors must attest to whether they have in place, and are properly applying, adequate systems to monitor and control their market risks. As has been noted, such an assessment is very complicated. While more learned than the average depositor, the average bank director presumably could be misled as to whether supervisory systems are properly in place. Presumably, he/she would still be accountable for false and misleading disclosure statements, but this is not enough. Furthermore, false and misleading disclosure statements often occur at precisely those times when there is an increased risk that a bank will run into trouble; that is, that its creditors will incur losses. Can a bank’s own directors easily detect falsehoods in those cases where such falsehoods are being used to temporarily enhance, for personal gain, the publicly perceived worth of a bank?

**Developing and Transitional Countries**

Brash notes that New Zealand’s new system for ensuring banking soundness may not work for other countries, particularly developing
countries. He might have argued, however, that a reasonable number of them could modify the system slightly, while preserving its essence—sound banking and reduced moral hazard—through an overriding emphasis on public disclosure and legal responsibility at the bank director level. But it is doubtful whether this approach would be successful. The problems facing developing countries in implementing such a system are both more serious and more numerous than those facing industrial countries.

There are several institutional characteristics of developing and transitional economies that pose particular problems. First, the degree of state ownership of banks in these countries tends to be much higher than in industrial countries and, partly for this reason, the extent to which the market can be relied on to exercise discipline is more limited. While the goal in many cases should be to divest the state of such ownership, the fact remains that until this goal is achieved, increased public disclosure and reduced conventional supervision will do little to shift the burden of responsibility away from the state. Second, the legal framework in many of these countries needs to be significantly improved before the responsibility can realistically be shifted to directors of either private or state-owned banks. Third, bank lending in developing and transitional economies tends to be more concentrated, directed, and connected than it is in industrial economies. The Reserve Bank of New Zealand retains limits on connected lending, as should any central bank. But this approach does not resolve the problem. The true extent of concentrated and directed lending would most likely be hidden by the need for banks to protect the identity of individual counterparties.

There are also a couple of distinguishing macroeconomic characteristics of developing countries that pose particular problems. First, developing countries tend to be subject to more extreme macroeconomic conditions than industrial countries, and thus their banks are subject to greater market risk. Here the ideal is to promote a more stable macroeconomic environment. But until this is feasible, real questions arise regarding the private market's ability to monitor a bank's risk management procedures: market risk is greater while at the same time the general public is probably less capable of assessing any given degree of market risk. Second, more volatile macroeconomic conditions in developing and transition economies, typically combined with a higher concentration of banks, are also likely to mean that problems in the banking sector pose systemic risks. The central bank must step in when a bank failure poses systemic risks—as apparently the Reserve Bank of New Zealand would in similar circumstances.
In conclusion, my comments have been stimulated by New Zealand's bold experiment in increased reliance on market discipline as an instrument to the further goal of ensuring a sound banking system, as well as by the interesting and provocative arguments put forward in Brash's paper. No one can object to a desire to boost market discipline in any country of the world. But, the jury is still out on whether New Zealand's new bank supervisory arrangements are, on balance, good for banking system soundness. Even if they are, I think that for developing countries, the introduction of arrangements similar to those now in place in New Zealand would have to come very late in the sequencing of financial reform.
MR. ŠKREB asked about the number of banks in New Zealand, noting that this was relevant to the cost of being informed about the health of the banking sector. He also noted that in order to be effective, reliance on market discipline had to be credible, and hence it would be interesting to know whether any bank had failed in New Zealand under the new arrangements. MR. THAHANE noted that a key policy objective in developing countries, especially in Africa, was to mobilize domestic savings, particularly through the banking system; at present people in developing countries, particularly in rural areas, tend to make little use of banks and, as a result, the depth of the bank market was very limited. With regard to disclosure, he asked whether Mr. Brash could elaborate on a suitable process of consultation in developing disclosure requirements by directors and whether these requirements were based in law or on regulations. MR. KOVACS said that he was very impressed by the New Zealand system but had two particular concerns. First, was it acceptable for a director to argue that the valuation of an asset was valid when it was valued, if not now? Second, it was often cheaper to merge a problem bank with another rather than to liquidate it; under New Zealand's arrangements there is no special agency to work out an exit strategy for a bank. MR. ILTCEV noted that the banking sector has to be in good shape before such a liberalization could begin; the move to public disclosure could reveal to the public previously unknown information about the health of a bank. He asked whether any banks had been affected this way in New Zealand and, if so, whether there was any evidence of a shift in deposits from such banks to other banks.

MR. OVI thought that the case presented by Mr. Brash was in fact a case for bank supervision to be done outside the central bank. In Denmark, deposit insurance had been introduced because it was thought that it would limit the central bank's obligations to depositors. He also noted that prerequisites for successfully putting the onus on bank directors were a limited number of banks; strong ownership by shareholders; and the existence of ratings agencies—market assessment of Danish banks' loan portfolios was limited by the absence of such agencies. The authorities were thus inclined to stick with on-site inspections. MR. KHANDRUYEV argued that reliance on public disclosure depended on accounting standards being in accordance with international principles; full transparency of information; and a sound banking system. For these reasons, such an arrangement was not achievable in emerging markets. He then invited Mr. Brash to elabo-
rate on the right combination of market discipline and supervision for emerging markets. Mr. Kibua pointed out the importance of empowering courts to deal decisively and effectively with directors of banks who do not comply with disclosure requirements. This will send a strong message to the market about the seriousness of the supervisory authority.

Mr. Brash responded by agreeing that there has been no rigorous testing of what the market thought of the new system. He could not see how there could be such testing in the absence of a market in New Zealand bank shares. Mr. Brash agreed that there was indeed still a degree of implicit insurance, but considered that it had been reduced and hopefully would continue to be reduced. He agreed also that the period between disclosures—three months—was a long time in banking and that quarterly disclosures might not pick up a change in market positions; the incentives were for banks to monitor their risks on a continual basis.

Responding to questions from the floor, Mr. Brash noted that there were 18–20 banks in New Zealand, with about 8–10 of these primarily active in the retail market and the others principally involved in wholesale banking. There had been no bank failures under the new arrangements, or indeed for many decades previously, and hence it was difficult to convince depositors that the Reserve Bank was serious about the possibility of loss. As for a crisis, the Reserve Bank was just as capable of dealing with one as in the past. There was no evidence of deposit shifts around the time the new arrangements were introduced, because they were introduced at a time when the banking system was very sound. The authorities would have been much more hesitant in introducing the new arrangements around 1989–90 because at that time quite a few banks were in difficult circumstances. Banks in New Zealand are not obliged to have a credit rating but they had to disclose any credit rating they did have and also the fact that they did not have one, if that was the case; all but one bank in New Zealand had a credit rating. The last major New Zealand–owned bank had been sold to foreign interests last year. This bank had had the lowest rating of any bank in New Zealand, and this fact may have contributed to its directors’ willingness to accept a takeover offer.

On the question of director liability, Mr. Brash said that the Reserve Bank had sought a legal opinion and had been advised that directors are not personally liable as long as they could reasonably establish that they had been careful and diligent in appraising risk; directors did not have to be the internal auditors of the bank but simply had to be prudent in running it. If, however, a director signed a statement saying that internal risk management systems were in good shape but
then could not, upon the bank's failure, demonstrate that appropriate inquiries had been undertaken before the attestation had been signed, the director would be liable.

Mr. Brash mentioned that there had been a debate in New Zealand as to whether to simply shift supervision to outside the central bank. He noted, however, that in those countries where supervision was officially carried out by a separate institution, the central bank nonetheless maintained a lively interest in supervision. Moreover, the establishment of a new body whose sole function was supervision ran the risk of that body spending its time justifying the existence of supervision.
Liberalization and deregulation have freed competitive forces and opened financial markets the world over. Supported by sweeping technological progress these forces have generated an unprecedented growth of opportunities, brought forth a flow of financial innovation, increased the diversity of market participants, and boosted cross-border activities. But there is no denying that these positive developments also carry new risks of instability. They stem from the very dynamics and complexity of today’s financial markets, from the increased volatility of prices and interest rates resulting from the explosive growth of trading in innovative products, and from the tight linkages among markets that allow disturbances to spread quickly through the financial system. The heavy losses of some banks and the various market disturbances seen in recent years have highlighted some of the dangers facing today’s liberalized financial world.

For national supervisors, the many government controls and restrictions that used to inhibit competition on both national and international markets undoubtedly contributed to the stability of the domestic banking sector. The dismantling of these controls and restrictions has created gaps that supervisors are now called upon to fill. This is a formidable challenge, as the supervisory problems today are as complex as the new world of global finance.

On the home front, supervisors have to show increased vigilance since the volume of financial transactions and the volatility of markets have considerably increased, not least because of the ever-grow-
ing trade in highly leveraged products, such as derivatives. Moreover, the intensified competition on both international and national markets will inevitably lead to a selection process within the banking world. As a consequence the potential for banking failures will mount. This may also hold true for banking markets like Germany's, which until recently had been nicely divided up between the various domestic banking groups and was difficult to penetrate because of the many well-established banks with proliferating branch networks.¹ Now, thanks to new selling techniques made possible by modern telecommunication technology, such as direct or electronic banking, even the German banking market has got moving. Large branch networks no longer seem the absolute must for attracting and keeping customers. Moreover, with the help of the electronic media foreign banks will find it much easier and less costly to enter markets like Germany's, further increasing the competitive pressure. This will probably lead to additional pressure on fees and interest rate spreads, while at the same time necessitating further costly investments in human resources and information technology. There is also a growing danger that banks fighting to keep their place in the market may be tempted to take high risks and to expand their operations into new lines of business without possessing the necessary experience and know-how.

In an overbanked market this will accelerate the process of concentration and may even create difficulties for banks, especially when—as presently in Germany—the weak economic situation forces trade and industry to speed up their restructuring. The supervisory authority, therefore, is called upon to improve its controls in order to detect such developments at an early stage and to ensure that any eventual exit takes place in an orderly way, without shaking the entire banking system.²

¹At the end of 1995, there were 3,831 banks and more than 48,000 bank branches in Germany.
²Germany has a clear policy of not supporting ailing banks. It has always been held that banks should be allowed to fail, and indeed quite a few banks have been closed by the supervisory authority and subsequently liquidated. The German banking act (Gesetz über das Kreditwesen), however, contains provisions enabling the supervisory authority, in the case of a bank being threatened by insolvenency, to take temporary measures by issuing a ban on sales and payments by the bank, ordering the bank to be closed for business with customers, and prohibiting the acceptance of payments not intended for the discharge of debts to the bank. The aim of such temporary measures is to gain time for the search for appropriate solutions to the impending insolvenency.
New Supervisory Challenges

Being aware of the need for increased watchfulness is one thing; keeping track of new risk constellations in a quickly changing banking world is quite another. The growing flow of financial innovations, especially the explosive growth of the derivative business and the unbroken trend toward securitization, has provoked a shift in the traditional risk structure of many banks. In the “universal” banks typical for Germany, market risk had formerly played only a subordinate role to credit risk, but has now grown to prominence and become the object of increased concern by supervisors.

Other risks, such as organizational, operational, and legal risk, which in the past have been of lesser supervisory concern, also have become of major relevance for the smooth and safe running of bank operations. Just think about the complex structures of large banking groups, the comprehensive back-up systems necessary for the management and control of complicated trading activities, the increased use of outsourcing, and the highly complicated netting and clearing arrangements. The associated risks can no longer be neglected by supervisors. Nor will supervisors be allowed to close their eyes to the safety issues posed by the increasing use of electronic media for banking operations.

The mounting competitive pressure is not only transforming business practices but also changing established institutional structures. The once clear-cut distinctions among various types of financial intermediaries, such as commercial banks, investment banks, insurance companies, and specialized finance companies, each with its own typical risk structure, increasingly blur. Major German banks, for instance, whose business has traditionally been “universal” are pushing heavily into investment banking either by setting up specialized subsidiaries or by buying up foreign investment banks. Another outcome of deregulation and international competitive pressure has been the emergence of large, international financial conglomerates—groups formed of different financial institutions offering a wide range of services, including banking, securities, and insurance. Since solo supervision over such a group’s constituent entities cannot achieve a sufficiently accurate assessment of the group’s total risk and since intragroup activities lack transparency, there is growing uneasiness that potentially dangerous risk volumes could build up without supervisors knowing about them.

Prudential Regulation—Problems and Shortfalls

To keep up with the developments in banking, German regulators are under constant pressure to overhaul and refine prudential rules,
methods, and standards. Of course, prudential regulation has always followed market developments. But, whereas in former times the process of change has been gradual and regulatory updates considered only occasionally, nowadays the frequency by which existing regulations have to be amended and new prudential standards created has dramatically increased.

As a result, rules and regulations tend to grow in volume and complexity. This causes considerable problems. Today's banking laws and regulations increasingly lack intelligibility. They also have become a growing administrative burden for both supervisors and bankers. On the other hand, considering the speed at which things change in the world of banking, the slow and cumbersome process of adapting rules and regulations is still likely to cause supervisors to rapidly fall behind.

In addition, the traditional mix of supervisory methods with its emphasis on mechanistic quantitative rules can no longer adequately control the complex and varying risk structures typical of modern banking. If supervisors have ever believed that compliance with quantitative prudential standards and high capital ratios guaranteed the safety of banks they should no longer do so. Capital standards, as traditionally used to assess credit and market risks, cannot capture with sufficient precision the varied and highly complex risks inherent in a modern bank’s operations. By their very nature as prescriptive uniform criteria they cannot be more than crude measurement instruments. They look simplistic and antiquated in comparison with the sophisticated risk management techniques used by leading banks. Quantitative prudential standards will remain useful only as rough indicators of capital adequacy and as a means of slowing down risk expansion.

Given the multitude of risk situations and the growing relevance of nonquantifiable risks (such as operational, legal, and safety risks) supervisors—instead of trying to contain banking risks by ever more refined prudential ratios—will have to make banks’ internal risk management the focus of their surveillance. A British supervisor recently remarked, “It is risk management, not capital, that protects a firm.” This may be an overstatement, since banks must have adequate capital not only for funding but for absorbing losses and limiting risk taking. But there is no doubt that supervisors would miss their goals if they did not make it their primary concern to monitor and evaluate the adequacy of the risk management and control systems of their banks. It is both a solid capital base coupled with a prudent, well-designed, and comprehensive risk management system that make a bank safe.
A first important step toward a more quality-oriented kind of supervision has been made by permitting banks to use their internal risk-steering models for calculating the amount of capital necessary to cover the market risks contained in a trading portfolio. The Basle Committee's recent guidelines for the control of interest rate risk is another example of the new type of risk management standards to be used by bank and national supervisory authorities. This approach will have to be expanded, which will be easier said than done. If supervisors are to concentrate more on ensuring that banks use adequate risk management procedures, they will have to do so on the basis of clear and objective minimum standards; banks need certainty about what is required of them, and supervisors must be able to enforce their demands on risk management. Such standards will have to be designed in such a way as to ensure equal treatment of all banks and to avoid too much reliance on the judgment of the individual supervisor. At the same time, they should be sufficiently flexible to be applied in a differentiated manner to varying conditions and to allow for financial innovation and structural change.

Too-general standards or principles on risk management will be difficult to enforce and give too much leeway to supervisory discretion. On the other hand, a too-detailed regime will lack flexibility and have the same flaws as the traditional legalistic approach. It will not be easy to find the right mix. Furthermore, in a financial environment in which national and institutional frontiers have lost their significance, it does not make much sense to develop purely national standards. Prudential rules and regulations ought to be coordinated across a broad international front and made applicable to both banks and other financial institutions if they are engaged in the same type of business. Only in this way will it be possible to avoid "regulatory arbitrage," which causes competitive distortions and weakens the overall supervisory network. Besides, major divergences in prudential standards would be an obstacle to effective cooperation among supervisors.

Putting more emphasis on banks' risk management procedures will require supervisors to show a much higher degree of sophistication than when traditional capital and liquidity ratios were predominantly used. Above all, supervisors will have to familiarize themselves with the businesses of supervised institutions and their internal management structures much more thoroughly than in the past. In applying risk management standards, they will have to rely on their own judgment much more than when applying quantitative rules. Yet, the exercise of judgment will be prone to criticism from the banks concerned and may invite extensive discussions with supervisors.
To meet the demands of this more qualitative form of supervision, the banking authorities will need highly qualified and specially trained staff, especially risk management specialists. For a government agency such as the German supervisory office, which is integrated into the public salary scheme, it will be hard to compete with banks for this type of personnel.

**Role of the Market**

The need to adapt prudential standards and methods to a rapidly changing financial environment should, however, not obscure the fact that supervision alone cannot ensure market stability. After all, entrepreneurial behavior is best guided by market incentives and sanctions. The more information available to the market, the better market forces will discipline banks and prevent them from imprudent risk taking. Therefore, the transparency of banks' and securities firms' activities, especially risk-related disclosure, should be improved so that market participants can fully evaluate the partner risks in which they may be engaged. Thanks to the work of the Basle Committee, the International Organization of Securities Commission, and the Group of Thirty considerable progress has been made in enhancing international banks' and securities firms' disclosure. But much remains to be done, on both the national and the international level, to improve disclosure practices, and especially to ensure the comparability and the meaningfulness of the data disclosed. This is a difficult task as accounting philosophies and practices vary widely, but it has to be tackled.

In many countries—Germany among them—supervisors have traditionally held the opinion that too much disclosure is detrimental, since it could cause depositors to react in destabilizing ways and make it more difficult to resolve a bank's difficulties quietly. But as a supervisor's primary task is not getting banks out of trouble but preventing them from getting into difficulties in the first place, it would be counterproductive under today's conditions not to allow the disciplinary forces of the market to assist supervisors to the fullest extent possible in ensuring sound and prudent banking.

**Cross-Border Banking**

Deregulation and liberalization have boosted the expansion of banks' cross-border activities and thus added an international dimension to bank supervision. Major banks have extended their branch net-
works beyond national frontiers or built up strategic bases in foreign financial centers by acquiring either local banks or subsidiaries. The network of financial connections among banks and among banks and other financial institutions is now embracing the globe and more densely woven than ever. Because of the growing globalization of trade and increasing competitive pressure, even those banks that continue to concentrate their business on local customers still must get more and more involved in international transactions.

This high degree of market interdependence worries the national supervisor since his or her country’s banking industry can no longer be protected from financial disturbances originating elsewhere. Nor do national competencies and supervisory powers exercise more than just partial control over those multinational banking groups that operate globally. Because of the natural limitations of any national supervisory body, such groups may—under certain circumstances—go largely unsupervised as the well-known case of the BCCI demonstrated.

The deficiencies of today’s fragmented national supervisory systems show the fundamental dilemma all national supervisors confront: to date, their mission has been a national one—securing the stability of their country’s financial system. Their methods and instruments were designed to this purpose; their competence has ended at the national frontier. But increasingly many of the risks they are to control originate beyond their sphere of influence, and to a very large degree the stability of home financial systems now depends on the safety and soundness of international markets. Thus, supervising banks and other financial market participants has become a supranational task. The only way for supervisors to live up to this new responsibility is to follow closely internationally coordinated standards and rules.

Although international coordination and cooperation has intensified over the past few years, cross-border banking still presents many practical issues for the national supervisor. If—as it is now widely accepted—international banking groups and their cross-border establishments are to be supervised on a global and consolidated basis by the home supervisor, he or she must have regular access to all the financial information relevant to the safety and soundness of the group’s operations; in other words, the supervisor must have the right to gather such information from the group’s foreign subsidiaries and branches. Furthermore, he or she should be able to conduct on-site inspections to verify the accuracy of the information received and to examine the operations and the risk situations of such cross-border establishments.
In practice, however, home supervisors may have serious difficulty establishing communication with or gaining access to host country establishments. The reason may be formal legal restrictions, such as bank secrecy laws or administrative hindrances. If such obstacles cannot be overcome, at least not in the short run, the home supervisor may be faced with a difficult choice. In the best case, he or she may be comforted by the fact that the host country, though not willing or able to grant access to prudential information, does at least supervise all banks on its territory. If that is not the case, the home supervisor will have to consider whether to trust that the banks with foreign operations will not exploit such a situation in order to escape from the strict regulations applied at home. Eventually the supervisor will have to decide whether to prohibit "his" or "her" banks from having branches or subsidiaries in a country where there is neither access to supervisory information nor a reasonable way to cooperate with the host supervisor. Many European countries, Germany included, have the legal power to restrict institutions from business abroad if there are prudential risks or if the data necessary to assure consolidated supervision cannot be obtained. Nevertheless, it is not easy to take such a decision, since it could impair a bank's business and put it at a competitive disadvantage, especially if supervisors from other countries take a more lenient position. Such situations are entirely unsatisfactory, not least since no single national supervisory authority can hope to make a host country change its attitude if it has no other leverage than preventing its banks from setting up subsidiaries or branches in that country.

There is a similar problem for host supervisors when foreign banks want to set up branches or subsidiaries in the national market. Of course, the banks will have to fulfill the same licensing requirements as local banks. But the host supervisor will also need to be assured that the foreign banks are subject to effective consolidated supervision by the home supervisory authority and that this authority is willing to cooperate in an efficient and satisfactory way. Furthermore, in a time when organized crime is putting out its tentacles all over the globe and actively seeking to infiltrate regular business, most supervisors are anxious to keep "their" markets clear of shady foreign banks. Therefore, it is of particular importance to the home supervisor to establish beyond a reasonable doubt that a foreign bank's owner is of good standing and unquestionable trustworthiness.

If these requirements are not fulfilled, the home supervisor will have to consider whether to refuse a license to the foreign bank. In Germany, where foreign banks have always been welcomed and enjoyed liberal access, the German supervisory authority will soon be
empowered to turn down a licensing request if the foreign bank is not properly supervised by a competent home supervisor or if the home supervisor is not disposed to cooperate with the German supervisory authorities.

The real problem, however, is again a practical one. How can a host supervisor determine whether or not a foreign bank is subject to effective supervision in its home country? The issue was intensely debated at the Ninth International Conference of Banking Supervisors in Stockholm (1996). While suggestions and proposals were made, no clear solutions have yet arisen. Getting reliable information about a foreign bank’s ownership may prove an even more intricate task. If—as it happens in a number of cases—host supervisors are left with an unclear picture of a foreign bank’s background, they ought to deny the license. In such cases, the burden of proof is clearly on the foreign bank and its home supervisor. But such a rejection may prove difficult if considerations of a more political nature come into play.

The days when banks wanting to enter a foreign market had to set up branches or subsidiaries, and thus automatically come under the control of the local supervisor, may be numbered, however. As most barriers to the free flow of financial services have been abolished and modern technology has allowed financial service providers to communicate with their customers at almost any place in the world and at any time of the day, the necessity for banks to have local bases of operations is diminishing. Even if electronic banking does not entirely drive out the more traditional forms of banking, it will certainly gain considerable importance and give rise to supervisory problems of an entirely new dimension. As long as direct or on-line banking is carried out by banks that are properly supervised, there will be no problem. But what if firms offering banking services through modern communications media operate from places without effective prudential regulation and supervision? How does one protect investors and depositors against the risks emanating from such uncontrolled entities? The most that national supervisors can do at present is publicly warn the public against doing business with unsupervised foreign firms. Over the long term, however, the question arises of how to make sure that problems originating from such entities do not contaminate other banks, trigger a market crisis, and pose a threat to the worldwide financial system.

Close and trusting cooperation will be of particular importance when a major international bank runs into problems. The good handling of such a situation may critically depend on the timely and full exchange of information among all the supervisory authorities involved. But there is a considerable potential for conflicts of interest
in such cases. A regulator in charge of a banking group, some part of which experiences difficulties, may feel compelled to withhold timely and comprehensive information from other supervisors because he is concerned that other regulators could take measures counterproductive to his own efforts or because he fears that other regulators could try to ring-fence the assets of the group’s institution under their regulation. Such measures need not be taken in bad faith. Often regulators are compelled by law to take certain actions. It is necessary, therefore, to find a supranational mechanism suitable to solving such conflicts of interest and allowing such crises to be handled in the best mutual interest of all concerned. It is best, of course, to prevent such situations from happening in the first place. The better the routine cooperation between supervisors, the better are the chances of achieving this goal. Therefore, the importance of the international efforts that have been launched to strengthen supervisory systems in emerging-market countries and to enhance the cooperation among supervisors of G-10 and non-G-10 countries cannot be stressed enough.

Conclusion

In today’s global financial environment, with its highly interdependent markets, the soundness and safety of banking must be ensured on a worldwide basis. This requires efficient supervisory systems to be in place wherever banks carry on their activities, internationally coordinated prudential standards and strategies, and close cross-border cooperation between supervisory authorities.

Much progress has already been made toward meeting these goals. But further efforts on the national, regional, and international levels are needed to establish the worldwide supervisory network essential for preserving the stability of the international financial system.
Wolfgang Artopoeus's presentation underlines the growing dilemma facing the supervisors of national banking systems in the context of increasing globalization of the banking sector. As he rightly stresses, the risks in the portfolios of banks are growing in tandem with the dynamic forces of competition unleashed by deregulation and the dramatic innovations in telecommunications and information technology. More important, the resulting volatility of markets raises concerns about the stability of the financial system. The new techniques of financial engineering, expansion of cross-border activities, and the trend toward securitization and the use of derivatives are making the activities of banks more complicated and complex to supervise.

As a representative of a supervisory authority in an emerging-market economy, which has recently launched a structural adjustment program, I can vouch for the growing strains in the supervisory role arising from the rapid transformation of the target financial system. These strains have called for major changes in the techniques and tools of supervision as well as the retraining of the supervisory staff. In emerging markets like India, exchange controls and nonconvertibility of national currencies have, for many years, insulated domestic markets from international capital markets. Such controls held at bay the transmission effects emanating from transnational markets. The domestic money and capital markets were also underdeveloped, and the banks rarely had to contend in any substantial measure with market risks; instead they focused on credit and operational risks. The assessment of these latter risks did not lend itself to pure quantitative or objective measure, and this is where the need to enhance quality of supervision becomes significant. Thus, it is necessary to vastly upgrade supervisory skills to evaluate and assess risk management in banks.

The structural reforms and the deregulation programs on which most developing countries, including India, embarked in recent years have begun to shift supervisory priorities, however. The banks as well as bank supervisors now must learn to cope with market risks and volatile interest rates and exchange rates. The increasing competition, largely by lifting the barriers to market entry for both domestic and overseas entities, has put tremendous pressure on formerly large margins, which had been protected by administered interest rates and almost total dependence on retail deposits, which are stable and rela-
tively less interest-elastic as compared with those in interbank and intercorporate markets. This pressure on margins squeezes out weak players, and the supervisory concerns are consequently heightened in a country like India where the exit route is also inhibited.

As Artopoeus observed, prudential regulations have to follow market developments in order to control the risks devolving on bank portfolios through market exposures. This, as he emphasized, needs constant vigilance and the fine-tuning of existing regulations by the supervisory authority, which become intense in a transitional economy going through structural adjustment. In such a situation, the regulators will be under pressure to redefine their rules, methods, and standards. Banking laws must be adapted in the context of emerging-market issues.

Artopoeus also remarks that quantitative prudential standards have become outmoded and do not capture the new risks. He refers to them as crude measurement instruments and cites a dire need to upgrade national risk management and control systems. This necessitates upgrading the skills of the supervisory staff at high costs.

With the growth of derivatives and cross-border banking, the risk profile has undergone a change. Market risk has become more important than credit risk, and off-balance sheet items have become a cause of concern for supervisors. The distinction between banks and their subsidiaries, investment banks, nonbanks, insurance companies, and financial institutions is getting blurred. This requires, as Artopoeus rightly stressed, a shift of emphasis in supervisory strategy and adoption of new tools from quantitative to a more quality-oriented kind of supervision.

A reference was also made to financial conglomerates. Supervision of financial conglomerates is posing a serious challenge to banking supervisors. Banks have set up securities companies, mutual funds, factoring companies, and stock brokering subsidiaries. Although regulations on arm’s-length relationships and legal separation exist, in times of serious problems, the banking entity is invariably expected to bail out the subsidiary either through soft loans or temporary financing. It is increasingly difficult to make firewalls effective between the banking entity and its subsidiary/affiliate in times of crisis. Here again, there are generally two regulators involved—the banking regulator and the securities regulator—and conflicts between them can arise.

Besides improving the competence of the supervisors for evaluating risks and risk control mechanisms in supervised banks and financial institutions, the need for national supervisors to coordinate with their counterparts in other countries has become essential. I endorse
Artopoëus's views on the pioneering work done by the Basle Committee in promoting the cause of international bank supervisory cooperation.

In conclusion, I believe that the explosive expansion and innovation in the financial activities, riding the back of modern technology and communications network, has given rise to more opportunities than threats. As such, regulators and supervisors should rise to the challenge by becoming more vigilant, and yet more responsive to the changed environment. I would also add that, whereas Artopoëus focused on the growing market risks facing supervisors, credit risk also remains a formidable concern (see Chapter 17). In my opinion, credit risk will continue to be a very important supervisory concern. The prudential norms of capital adequacy, asset classification, income recognition, and provisioning, developed over years of research, have stood the test of time, and the BIS is continuously updating and evolving new risk-measuring instruments. Moreover, the Basle Committees on Banking Supervision are continuously debating these emerging concerns.

The reality is that markets will be always ahead of supervisory technique, and the players will continue to get more attention than the umpires. The whole effort has to be to ensure that the gaps do not widen. I think as supervisors we should be more concerned that banks undertake only those jobs that they are equipped to handle and whose risks they can measure. There are no short answers or shortcuts to supervision. The future will continue to pose challenges. The focus must shift to more internal rather than external supervision. BIS will have to strengthen, as Carl-Johan Lindgren mentioned yesterday, corporate governance, internal controls and systems, and disclosure norms. The on-site and off-site monitoring has its time limitations. The data of even one previous quarter become old. Keeping in mind the volume of transactions involved and their attendant risks, new instruments of supervision need to be devised, including tightening existing norms and building new market intelligence mechanisms.
It is quite naturally assumed nowadays that responsibility for monetary policy devolves upon the central bank. The question of who should be responsible for banking supervision, however, is much more controversial despite the historical backdrop concerning institutional responsibility. As Paul Volcker, former chairman of the Federal Reserve System, pointed out on the occasion of the one hundredth anniversary of the Banca d’Italia, some central banks, like those of the United States and Italy, were “founded much more out of concern about banking stability than out of ideas about monetary policy as we know it today.”

The controversy over the role of the central bank centers on a basic question: is it preferable, for the effectiveness of monetary policy and banking supervision, that the institutions responsible for monetary policy and banking supervision be independent or come under the same joint authority, even be one and the same institution? The many different systems in existence reflect the history of individual institutions and the particular circumstances in each country. Neither economic theory nor an analysis of the institutional arrangements suggests that one particular model is objectively more effective than all others.

If one looks at the special features of the French system and compares them with the general principles underlying other countries’ arrangements, the wide range of possible approaches becomes appar-
ent. But the French system seems to mix the advantages of having a banking supervisory function closely related to the central bank with those of it having a legal independent status. A further model (the planned European System of Central Banks, or ESCB) will add another element to this already complex picture.

**Theoretical Issues in Banking Supervision**

Theoretical analysis does not suggest that one institutional model for banking supervision is superior to all others.

**Strategic Role of Banks**

Banking supervision is needed because of the strategic role that banks perform and because they are vulnerable to a crisis of confidence. A sound banking system is essential given the importance of the functions that banks perform in the economy: intermediation, maturity transformation, the creation and management of means of payment, and lending. Modern theoretical analysis identifies two particularly important services that banks perform in market economies, namely providing information and ensuring liquidity.

Banks also display two features that distinguish them from other businesses and are a source of fragility:

- The highly asymmetrical structure of their balance sheets—in a simplified model, they have liquid liabilities whose value in nominal terms is fixed and claims that tend to be illiquid and difficult to value;² and
- The importance of interbank operations—a large proportion of transactions takes place among the banks themselves.

The first of these features makes the bank vulnerable in the event of a crisis of confidence, particularly if there is a “run on the banks” (as Milton Friedman, for example, has shown). The second feature can result in individual bank failures posing the threat of a systemic crisis.

Among the main tools of banking supervision policy, the monitoring of liquidity has implications for monetary policy.

Principally, the authorities supervise the banking system by controlling the activities of the banks (licensing, regulation, definition of the scope of banking activity, and so forth); by monitoring solvency (such as setting and supervising prudential ratios); and by monitoring

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liquidity (regulation of the money market so as to ensure it remains sufficiently liquid). It is in this third area that banking supervision impinges on monetary policy. In most countries, the monetary policy authorities pursue goals of internal (price) and external (exchange rate) stability primarily via the influence they exert on bank liquidity. The banking supervisory authorities, for their part, see it as their task to monitor movements in the banking system's liquidity. This takes two very different forms. First, they need to ensure that the banks are supplied with an adequate amount of liquid resources, which are essential for the smooth operation of the payments system. Second, they must try to prevent liquidity crises that could be generated by the failure of individual banks.

Separating Monetary Policy and Banking Supervision

The arguments in favor of keeping monetary policy independent of banking supervision are frequently discussed. The main argument in favor of preserving a separation between monetary policy and banking supervision is that combining them can lead to a conflict of objectives. For example, in its capacity as lender of last resort to banks in difficulty, the central bank could inject excessive liquidity into the system, thus endangering monetary stability. Such a conflict of objectives can also arise in the area of interest rate policy. A reduction in key interest rates may seem desirable to reduce the cost of resources to a banking system in temporary straits, but inflationary conditions in the economy as a whole may require interest rates to be kept high. This was the dilemma faced, and eventually overcome by, U.S. monetary authorities in the late 1980s during the savings and loan crisis. Finally, the requirements of external monetary stability can present another source of conflict. A sharp hike in interest rates may be used to protect the currency, but it may negatively affect banks' profits.

The structure of a country's financial system largely determines how serious these conflicts will be. In those countries where banks engage in maturity transformation, which results in a high degree of asymmetry in banks' balance sheets, the conflicts are likely to be greater. The competitive conditions in the banking market also play a role. The more competitive the market, the more the banks are "price takers," the less control they have over their lending and borrowing rates, and the more vulnerable their earnings are to changes in interest rates. Generally speaking, the effects of interest rate changes depend on how interest rates are determined (especially the relative importance of fixed and variable rates).
Charles Goodhart and Dirk Schoenmaker have pointed out a paradox here.\(^3\) The desire to separate the functions of monetary policy and banking supervision has been strongest in Germany, a country with perhaps the least risk of a conflict arising. The German financial system is dominated by powerful banking groups, most of whose resources are raised at fixed rates of interest. This means that their costs are not particularly sensitive to interest rate changes initiated by the monetary authorities. As a result, the latter can largely discount the effects of their decisions on banks' earnings.

At the theoretical level, the existence of these conflicts can be explained by the fact that monetary policy is supposed to have a countercyclical effect, whereas banking supervision policy has procyclical effects. As a consequence, it is more difficult for the banks to observe solvency ratios in a period of recession, when profits are low and their level of indebtedness high.\(^4\) In cases where monetary policy and banking regulation are not separated, the banking supervisory authorities would come under considerable pressure to enable monetary policy to be eased—that is, make it less costly for banks to comply with the prudential regulations. In such circumstances, a complete separation of the two functions would appear to be the only way to resist such pressures.

Another argument in favor of separating the functions of monetary policy and banking supervision revolves around the role of market discipline. Ensuring the soundness of a bank is first and foremost the responsibility of its shareholders and managers. The principles of corporate governance, based on the sanction of the market, apply in full to the banks. In accordance with this approach, internal controls at the banks are the best way to avoid difficulties and bank failures. The main role of the banking supervisory authority should be to “monitor the internal controls in place at banks” so as to ensure that they are effective and operate properly. It is also accepted that the banking supervisory authority should be responsible for preventing the systemic risks that are associated with the interdependence of banks and that are ignored by the internal control systems designed to manage risk at individual banks.

To ensure that the discipline of the market is not prejudiced by any action taken by any supervisory authority, the latter must be independent. The effectiveness of the authority will be greatest if the banks


\(^4\)Goodhart and Schoenmaker, "Institutional Separation."
are convinced that it will resist their pressure. If the supervisory authority is separate from the central bank, it cannot act as lender of last resort and cannot create liquidity to meet the demands of a bank in difficulty. Similarly, such an independent institution does not have the power to manipulate interest rates to help the banks.

The independence of the supervisory authority, therefore, is a means of eliminating moral hazard, which considerably reduces the credibility and effectiveness of the authority. If the supervisory authority is not independent and banks believe that the central bank will come to their aid if they are in difficulties, they have no incentive to abide by the prudential rules and the discipline of the market. The greater the size of the bank in trouble, the greater will be the moral hazard, since senior executives at the bank know that their failure could have disastrous effects on the banking system as a whole. This is the "too big to fail" argument.

Thus, there may be cases where liquidity assistance to an individual bank may be needed to guard against systemic risk. However, rather than the lender of last resort facility, another solution is often applied, namely a guarantee of deposits by an institution that is independent of the central bank. Unfortunately, this solution does not entirely resolve the problem of moral hazard, as discussed later.

**Arguments Against the Total Separation of Monetary Policy and Banking Supervision**

Those arguments are less familiar, but just as important. There are two lines of argument against strict separation and in favor of coordinating the functions of the authorities responsible for monetary policy and banking supervision.

First, payments systems play a strategic role in the operation of a decentralized market economy. The considerable volume of same-day payments that pass through most large-value payments systems give rise to major potential risks of failure that could rapidly degenerate into systemic risk. During the past decade, the question of payment risk has become a major concern to the supervisory authorities, as evidenced by the Lamfalussy report and the Padoa-Schioppa report.  

The central bank's role in managing, underwriting, and supervising the national payments systems is fundamental: it is one of the main

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arguments made by Chairman Alan Greenspan when defending the role of the Federal Reserve in the 1993–94 debate on a would-be Federal Banking Commission. Of course, the nature and scope of this role depend on the nature of the payments system concerned.

In net settlement systems and in gross settlement systems with overdrafts, operators are exposed to counterparty risk, which is greatest in net settlement systems where payments can be revoked (as with SAGITTAIRE in France). Failure on the part of a participant may involve a partial or total loss for counterparties (depending on the operational rules). The repercussions of such a loss can result in the settlement default spreading in a way that could destabilize the banks involved. In such circumstances, action by the central bank as lender of last resort would be needed to safeguard the system's credibility.

The counterparty risk is minimized in gross (or real-time) settlement systems without overdrafts, since an operator's standing is determined immediately; payment orders are issued and settled on a synchronized basis. On the other hand, such a system requires a higher level of intraday liquidity than the systems mentioned above. Operators are exposed to a continuous risk of illiquidity, which may hinder the operation of the settlement system. As a result, central banks need to monitor movements in liquidity and in some cases require operators to hold reserves in their books. Such a system is more secure, but the opportunity costs are correspondingly higher.

The security of payments systems tends to increase as the technology advances (real-time and synchronized gross settlements). However, not all the risks have been eliminated, and the settlement systems of different countries still present a varied picture. In the long run, once settlement systems are secure, the supervisory authority can be confined to a monitoring role. Until this ideal is realized, however, the central bank will still need to act as lender of last resort and in an operational capacity.

Finally, beyond their supervisory role, central banks may find it necessary to retain functional links with the payments system, since they need the latter for the purposes of regulating bank liquidity. Here, too, a potential conflict of objectives can arise if the volume of liquidity required to enable a payments system to function does not necessarily coincide with the volume required for the conduct of monetary policy.

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A second argument against total separation of monetary and supervisory function relates to the central bank's role as lender of last resort. There are two opposing theories regarding the lender-of-last-resort function as a means of eliminating systemic risk. According to orthodox theory, central banks should intervene only to assist banks that are illiquid but solvent and they should charge a penalty rate of interest (above the market rate) for such assistance. This argument was first set forth by Walter Bagehot in his famous book *Lombard Street* (1873) and has been adopted and developed by a number of later writers.7

A more recent approach supported by a growing number of economists, especially Goodhart and Baltensperger, suggests that the role of lender of last resort is necessary because of imperfections in the credit market.8 These mean, first, that the survival of an individual bank may be threatened in the event of a liquidity crisis and, second, that the failure of a bank may have destabilizing effects on the banking system as a whole. The starting point for this argument is the fact (mentioned above) that banks are potentially vulnerable because of the structure of their balance sheets. There is also an asymmetry of information between the bank and its clients. For example, it is difficult for the depositor to assess the quality of the bank's assets. Given such an uncertainty the slightest doubt concerning a bank's solvency could trigger a series of bank runs, and such a process could weaken, via the interbank market, other banks that had no liquidity problems at the outset.

In practice, this orthodox view of the central bank's lender of last resort role is not in all circumstances adhered to. This is illustrated by the results of a recent survey of bank failures in 24 countries in the 1980s and early 1990s.9 Out of the 104 bank failures recorded, 73 were the subject of rescue operations in which the central bank was involved. The remaining 31 went into liquidation, 4 of them after unsuccessful attempts to rescue them.

Central banks see fit to intervene for various reasons. First, the difference between a liquidity crisis and a solvency crisis is difficult

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9Goodhart and Schoenmaker, "Institutional Separation."
to discern in the short term. In principle, solvency is measured by comparing (actual or potential) losses with equity resources. But such an assessment takes time. Central banks usually have to act quickly to maintain the confidence of depositors and to stop any risk of the problem spreading or infecting the banking system as a whole.

Second, issues of moral hazard may motivate central bank intervention. As we have seen, there are two main ways of supplying liquidity to failing banks (excluding direct intervention by the government): intervention by the lender of last resort or a deposit insurance scheme. The latter option, which is often advocated by the orthodox school, is by no means clearly superior to the lender-of-last-resort facility. Deposit insurance schemes are usually slow to pay out compensation, because of complicated bureaucratic and legal procedures involved, and depositor confidence may suffer as a result. Moreover, the knowledge that depositors will be compensated in the long run does not encourage banks to improve their risk management. The lender-of-last-resort option is, it would appear, less subject to such criticisms. Not only can action be mounted very rapidly with the immediate restoration of depositor confidence but the central bank can also apply the doctrine of "constructive ambiguity" by creating a climate of uncertainty over whether or not it will intervene and to what extent. This is one way of discouraging banks from neglecting their responsibilities for sound risk management. Experience seems to show (see the above-mentioned survey) that direct intervention by the government (and hence the use of taxpayers' money) is more frequent where a deposit insurance scheme is in existence. This could be taken as an indication that such a system is less efficient.

**Linking Monetary Policy and Banking Supervision**

The need for a link between monetary policy and banking supervision is thus established.

All in all, there appear no theoretical grounds for claiming the superiority of a banking supervisor that is strictly independent of the monetary authority. The different positions on whether banking supervision should be assigned to an independent body simply reflect differing conceptions of the role of the banks in the economy. Those in favor of an independent institution assume that banks are neutral, in the sense that their behavior has no impact on the functioning of the economy. This view is supported by those who claim to belong to the school of "new classical economics," which dominates at the present
time. Once banks are assumed to be neutral, there is no longer any reason to link banking supervision with the other objectives of economic policy.

If one rejects this assumption of banking neutrality, however, then the question of the links between monetary policy and banking supervision arises, since the smooth operation of the banking system becomes a real economic policy issue. Three lines of argument can be pursued against neutrality.

(1) Monetary stability seems to be closely linked to the stability of the banking system, and this relationship seems to work in both directions. The banking system is the main channel for the transmission of monetary policy and so a poorly functioning banking system diminishes the effectiveness of monetary policy. Likewise, a banking system can work properly only in a stable monetary environment (absence of inflation and relative stability of interest and exchange rates).

(2) Banking crises can have important repercussions on the operation of the real economy. This has been amply demonstrated by the theoretical analyses, often based on the study of historical experience, of, among others, Kindleberger and Minsky.11

(3) The economic and social cost of a banking crisis is usually greater than the macroeconomic cost of an injection of liquidity, especially since central banks have the means of neutralizing this liquidity, at least partially (through offsetting measures to freeze liquidity).

Once it has been accepted, for the reasons above, that the functions of monetary policy and banking supervision should be linked in some way, any institutional arrangements based on the complete independence of the authorities responsible for these two functions appear suboptimal, since independence provides the least favorable conditions for coordination. The chosen organizational structure must prudently divide responsibilities between the monetary and banking authorities, as well as coordinate their two functions and ensure they

10New classical economics is based on two central tenets, namely the theory of general equilibrium and the hypothesis of rational expectations. Its chief advocates were the American economists Robert Lucas, Neil Wallace, and Thomas Sargent. One of the main proponents of the theory of banking "neutrality" is Eugene Fama.

are carried out according to precise rules. Such an approach may take several different forms. For example, the responsibilities may be assigned to two separate departments within the central bank (as in the Banca d'Italia and the Bank of England until the reform) or to two separate but coordinated institutions (as in France, where the Commission Bancaire operates in close conjunction with the Banque de France). An intermediate option was adopted in some recent central bank laws by giving banking supervision a special, semi-independent status while maintaining the function within the central bank.\textsuperscript{12}

The institutional arrangements proposed for the future economic and monetary union (EMU) embody an original approach to this question of separation. The two functions will be carried out at two different levels within the future European System of Central Banks. Monetary policy will be the responsibility of the European Central Bank, while banking supervision will be decentralized at the national level in accordance with the principle of subsidiarity, which does not rule out the most appropriate forms of cooperation: exchanges of information and views among the national banking supervisors, the national central banks (NCBs), and the European Central Bank.

Within this new institutional environment it therefore becomes less important whether or not the national banking supervisory authorities are independent, especially since the institutional process initiated in preparation for EMU has brought independence for the NCBs. In the past, when the NCBs were not independent, there was a danger that governments would put pressure on the monetary authorities to pursue permissive banking policies. Once the NCBs became independent, the danger disappeared. Thus, paradoxically, this new institutional environment creating supervisory bodies that are independent of the NCB could make banking policy more vulnerable to banking pressure groups and to political pressure. The credibility of banking supervision policy depends more on independence with respect to these operators than with respect to the central bank, as is underlined in international surveys.\textsuperscript{13}

Moreover, independence from external pressures—and above all from political pressures—is one of the key requisites for efficient banking supervision. This tenet should be complemented by adequate


\textsuperscript{13}Tuya and Zamalloa, "Issues on Placing Banking Supervision."
coordination of banking supervision and monetary policy and by the appropriate staffing and resources.

All in all, contrary to the prevailing view, there are no conclusive theoretical arguments to support institutional independence between the monetary policy and banking supervision authorities. Instead, the recent trend in banking systems—and particularly payments systems—favors central bank involvement in the management of banking systems in collaboration with the banking supervisory bodies. The variety of experience among the different countries suggests that there is no single all-embracing model.

**How Common Is Institutional Interdependence?**

In practice, institutional independence is more common than might appear to be the case. It is common practice to distinguish between the U.S. and the European models of "universal banking." In reality, there are at least three European models of "universal banking," found respectively in Germany (where all banking activities, including market operations on behalf of clients, are combined in a single balance sheet), the United Kingdom (where market activities are delegated to subsidiaries), and France (where the banking groups are universal). The banking model has important implications for the supervision setup.

**France**

The French system conforms to the principles underlying the more general organization of banking regulation and supervision in France. The French Banking Act of 1984 (which has since been marginally extended) basically applies to the French version of the universal bank. It therefore covers almost all operators in France engaged in financial intermediation. The institutional framework established under the Banking Act is based on a strict separation of functions and bodies. It confers responsibility for supervising credit institutions on the Commission Bancaire, which replaced the former Commission de Contrôle des Banques, which was set up in 1941.

This system thus follows an approach (already 50 years old) embodied in an independent commission acting for the state, without formal legal personality or resources of its own, but fulfilling a quasi-judicial function. The French system of banking supervision is idiosyncratic. It is a three-tiered system, an essential feature of which is the very close relationship between the Commission Bancaire
(responsible for supervision) and the Banque de France. The Commission Bancaire is the main body conducting banking supervision, notably through its general secretariat. Six members serve on the Commission Bancaire: the governor of the Banque de France, or his representative, as chairman; the directeur du trésor, or his or her representative; plus four other members appointed for a term of six years by the minister of economic affairs and finance. Of the latter, one is a member of the Conseil d'Etat, one a judge at the Cour de Cassation (thus representing two of the highest courts in the country), and the remaining two are appointed for their knowledge of banking and finance and are generally retired bankers. The chairman casts the deciding vote in the event of a tie.

The Commission Bancaire meets every two to three weeks. It has three essential tasks: verify compliance with banking laws and regulations and punish any breaches; examine the terms on which banks conduct their business and make sure that their financial situation remains satisfactory; and ensure that the rules of good professional conduct are followed. It thus exercises both administrative and quasi-judicial powers. Its role extends well beyond ensuring that credit institutions comply with the prudential standards.

The Commission Bancaire has a general secretariat (Secrétariat général de la Commission bancaire, SGCB), to which it issues instructions on the supervision of institutions. Generally speaking, the secretariat drafts and implements the directives and decisions issued by the commission. Most of its staff are Banque de France employees seconded under the terms of a joint agreement. This ensures the consistency needed to conduct sound supervision.

There are three levels at which supervision takes place: continuous supervision by “data analysis” (“off-site” control), supervision by inspection visits (“on-site” control), and general oversight of the banking system. The SGCB is thus divided into three departments, which employ approximately 400 people:

- microsupervision—permanent oversight of individual credit institutions and investment companies;
- macrosupervision—legal affairs, European and international affairs, banking analysis, accounting, information technology; and
- on-site inspections—led by Banque de France inspectors.

These arrangements were confirmed in 1993 when the Banque de France’s statutes were revised (to make the French central bank independent). It was felt by parliament that the combination of an independent commission and a general secretariat whose functions were performed by Banque de France secondees was a sound arrangement,
which also maintained the French judicial tradition of separating the functions of investigation and decision making.

The particular characteristic of the French system also derives from the separation of the three functions of regulation, licensing, and practical supervision and the assignment of official responsibility for these functions to bodies that are legally separate from both the central bank and the Ministry of Finance.

But the French system also ensures that there is cooperation between the ministry and the Banque de France in this area. The governor of the Banque de France and the minister of economic affairs and finance, or his representative (the Directeur du Trésor), serve on all three bodies. The Comité de la Réglementation Bancaire et Financière (CRBF, or Banking and Financial Regulatory Committee), whose name is self-explanatory is composed of six members and chaired by the minister’s representative. The body responsible for granting authorizations (to set up a bank or make significant changes to its basic characteristics, such as the majority shareholder structure), namely the Comité des Établissements de Crédit et des Entreprises d’Investissement (CECEI, or Credit Institutions and Investment Companies Committee), is (like the Commission Bancaire) chaired by the governor of the Banque de France. In other words, the Commission Bancaire does not issue regulations or banking licenses but assists the competent authorities in those tasks.

The Commission Bancaire and its general secretariat naturally provide technical assistance to CRBF and CECEI. Moreover, they issue clarifications and elaborate specific regulations to make sure that they are understood and implemented by credit institutions.

The Banque de France is closely involved in the three tiers of banking supervision, particularly through staff links. These three committees are politically independent and formally independent one from the others. However, because of the need for close cooperation among them—after all, they have joint overall responsibility for ensuring that the French banking system is sound—they maintain links at the institutional (or departmental) level so as to operate effectively in tandem and strengthen their relationship with the central bank. Indeed, the catalyst for the permanent collaboration among the committees is the Banque de France. The committees meet to make decisions, but the preparation for these decisions and their implementation are undertaken by Banque de France personnel.

This means that the Banque de France is primarily responsible, on an on-going basis, for staffing the permanent secretariats of these three bodies. In the case of the Commission Bancaire this is stipulated in the Banking Act. Apart from seconding staff, the Banque de
France also provides logistical support to the three bodies and access to some of its electronic data files. The SGCB has access to the qualitative information gathered by the Banque de France’s network of branches. These perform a strategic function in the preparation and conduct of banking supervision, although their role is probably more discreet than that of the land central banks in Germany.

The fact that the seconded staff of these committees are recruited and trained in accordance with the same principles and share the same methods and aims is one of the great strengths of the French system. However, to ensure that those working for the banking supervisory body have an understanding of market practices and to stimulate an exchange of views between supervisors and the supervised, an exchange arrangement has been in operation for some years, allowing temporary job swaps between the main banks and the SGCB. This provides an opportunity for supervisors, released by the SGCB for about two years at a time, to learn more about the outside world and for bankers to gain some insight into banking supervision as well as to contribute some of their own expertise. To exploit the full benefits of this system of staff secondments from the Banque de France to the Commission Bancaire, some additional recruitment takes place for specific purposes.

Finally, thanks to the natural mobility of central banking staff, it is possible, for a Banque de France official to alternate several times between departments concerned with the formulation or conduct of monetary policy and the SGCB or the Banque de France’s Direction des Établissements de Crédit, which acts as secretariat for the CECEI. It should be noted, however, that such career switches do not impair the effectiveness of the “Chinese walls” erected between the central bank and the banking supervisory authority. For example, except in the performance of its statutory duties, the Banque de France has no access to information provided by the SGCB on the quality of a given counterparty. The SGCB is bound by the rules of professional secrecy, under the terms stipulated for the sharing of information between bodies with statutory duties in the fields of banking and finance, not to reveal certain details of a bank’s operation.

The special relationship between the banking supervisory body and the Banque de France is particularly important with regard to on-site inspections, which serve to complement off-site controls. The number of visits conducted directly on banks’ premises is increasing in France, as in most other major countries. In addition to their traditional task of conducting comprehensive examinations of individual bank’s activities, inspectors also undertake across-the-board analyses of particular themes covering the whole banking population and spe-
cially targeted emergency inspections. This last type of inspection is becoming more common, in line with current trends, for example in the United States.

Those engaged in off-site supervision maintain close contacts with all regulated banks and with those who carry out targeted on-site inspections. As a result, it becomes easier to prevent a banking crisis, or, at least limit the extent of its fallout. To this purpose, the Commission Bancaire employs a wide range of suitable sanctions and may rely on numerous options for intervention.

As soon as the Commission Bancaire identifies a problem that is not yet beyond repair (it has not resulted in a net liability position or an overt liquidity crisis), it acts very quickly and discreetly to help restore normality. At the same time, the commission may initiate disciplinary procedures in which the rights of the bank to defend its actions are rigorously protected. The sanctions may range from the issue of a warning to the withdrawal of authorization. (In between these extremes, it may prohibit or limit the conduct of certain operations, levy fines, and temporarily suspend or permanently dismiss senior bank management.) If the Commission Bancaire finds that a bank is no longer adequately managed, it must take appropriate steps by appointing a provisional administrator, who will cooperate with the official receiver. If the situation degenerates to the point where the bank cannot be saved, the commission must withdraw the bank’s authorization and appoint a liquidator. Recommendations to take enforcement action against individual institutions are made by the general secretariat but must be approved by the commission itself. While doing so, the Commission Bancaire acts as an administrative court. Enforcement actions are generally not made public at the time they are taken.

Supervision cannot prevent every bank failure, because, however promptly and effectively the commission acts, its supervision is always carried out after the event and it cannot get involved in the actual management of a bank. Besides, when economic conditions are difficult, the situation of individual banks can deteriorate very

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14For example, the Commission Bancaire does not have the power to issue instructions regarding commercial policy, deposit-taking arrangements, types of lending, and so on. It can do no more than identify, especially in the course of its targeted inspection visits and with the help of precise and rapid reporting, where decisions taken by a bank have led to financial problems. In such cases it will, for example, suggest a more suitable matching of resources to lending or appropriate risk-provisioning measures.
rapidly. This is why the handling of crisis situations forms an integral part of the Commission Bancaire’s work, while preventing them requires it to liaise more closely with the two other parties involved in the monitoring process, namely the external auditors and the persons responsible for exercising internal controls on behalf of the shareholders.

In France, the position of shareholders is not the same as that of U.S. bank shareholders vis-à-vis the Federal Deposit Insurance Corporation (FDIC). In France a bank shareholder’s financial liability is not limited to his or her share of the capital held.\footnote{This is also why an authorization to conduct banking business is, above all, conditional upon there being a “reference shareholder” to which the Commission Bancaire can turn before all other shareholders in the event of a liquidity or solvency crisis.} For this reason, the governor of the Banque de France, under Article 52, first paragraph of the Banking Act, may, in his capacity as chairman of the Commission Bancaire call upon the shareholders to provide the bank with the support it needs. Moreover, in exceptional circumstances the governor of the Banque de France may, under Article 52, second paragraph of the Banking Act, “arrange for the assistance of the credit institutions as a group with a view to taking the measures needed to protect the interests of depositors and third parties, ensure the smooth functioning of the banking system, and safeguard the reputation of the financial center.”

Such emergency measures are always the result of a long period of discreet consultation. Much of the Commission Bancaire’s work toward crisis prevention and resolution is carried out quietly. Nevertheless, while prudent intervention (which does not seek to prolong the life of an institution with no hope of recovery) costs society less than a series of badly managed failures, the moral hazard that can result from such intervention, despite all threats of external sanctions, makes the authorities extremely cautious about implementing these two provisions of Article 52 (especially the appeal for assistance from regulated banks).

It is important that shareholders should be made aware of their responsibility for ensuring full implementation of statutory, regulatory, and legal provisions strengthening corporate governance at banks and the companies that own them. In particular, the CRBF has recently approved a regulation on internal controls at banks, which encourages setting up audit committees and sets the powers of internal control departments; the latter must be independent of the operational areas and report directly to the bank’s board and shareholders, the
banking supervisor in the SGCB, and the external auditors. Moreover, closer cooperation between the latter and the SGCB follows a trend already well established in Europe.

Other Countries

Because they often share the same concerns, banking supervision systems in various countries are developing along similar lines, despite very different institutional traditions. Specifically local elements means, however, that it is not possible to arrive at a single standard “model.” While governments are generally responsible for drafting banking regulations, the authorities responsible for issuing banking licenses vary considerably across countries and a precise classification becomes somewhat irrelevant.

Japan is traditionally cited as an example of a country where regulatory powers are concentrated to a large degree in the Ministry of Finance. Usually the ministry lays down the general principles underlying the regulations, and the supervisory body then operates on the basis of documents that are more technical and specific. As far as the European Union is concerned, Austria, Germany, and, in some respects, France (see above) conform fairly closely to this model. Belgium, Finland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, and the United Kingdom conform to it partially. The Danish Finanstilsynet, whose instructions have the force of regulations, belongs to that country’s Ministry for Industry.

However, when their individual characteristics are taken into account, countries are less easy to categorize. In Germany, for example, under the arrangements governing the drafting of regulations, the Bundesbank, whose consent is required in certain (monetary) matters, must be involved in the regulatory process, and the Federal Banking Supervisory Office (BAK, an independent body) issues instructions that flesh out the regulatory framework laid down by the federal Finance Ministry. In the United Kingdom, because of the flexibility of the legal framework that governs the relationship between the Treasury and the Bank of England (and the latter’s powers), the question of which agency holds the respective powers to issue and to implement regulations becomes less relevant.

The situation regarding the licensing rules (issue of an authorization to conduct banking business) varies quite fundamentally. Leaving aside France, European countries are apparently divided between those in which the supervisory authority, whether it is the central bank or an independent body, is also the licensing authority for the banks (Belgium, Germany, Greece, Italy, the Netherlands, Portugal, and the
United Kingdom) and those in which authorization is granted by the Finance Ministry, often in consultation with the supervisory authority (Austria, Finland, Luxembourg, Norway, and Spain in the case of banks, Portugal in the case of foreign shareholders, and the Irish Republic).

Japan is one of the countries where the dominant role of the Finance Ministry is most marked. Here, too, a detailed study of the various branches of activity that require authorization serves to highlight the inevitable differences between countries.

In nine of the countries of the European Economic Area (Greece, Iceland, the Irish Republic, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom), responsibility for conducting day-to-day banking supervision lies directly with the central bank. In only one European country, namely Austria, is the Finance Ministry directly responsible for supervision. The situation seems more complicated in the Scandinavian countries and in Belgium, France, and Germany, where the authority responsible for banking supervision is an independent body, sometimes with its own legal personality. Moreover, in a few countries this body’s competence extends to the financial sector generally, since it supervises the financial markets (as in Belgium) and even insurance companies (as in the Scandinavian countries). However, despite such legal autonomy, this body is usually linked (except in the case of Belgium) to either the central bank or the Finance Ministry (or the Ministry for Industry in the case of Denmark).

The central bank is usually either solely or jointly responsible for the conduct of day-to-day banking supervision, although the practical arrangements may vary significantly from one institutional setup to another. It is important to avoid being too categorical in such classifications. The dangers of such an approach are illustrated by even a cursory glance at Germany, where several organizations are involved in the task of day-to-day supervision. The central bank, particularly through the land central banks, carries out all the initial tasks of off-site supervision and monitors the general financial situation of banks. The professional associations monitor, by means of off-site and on-site controls, the solvency of their member institutions that enjoy their guarantee. Finally, the Federal Banking Supervisory Office is legally responsible for and administers the individual decisions taken under Germany’s banking laws. This offers a good example of the effectiveness of links between the banking supervisory body and an independent central bank.

The relationship between the banking supervisory authority and the central bank raises the issue of how such arrangements are organized,
and in this regard a number of extremely interesting issues are worth considering: the practical consequences that could result from a radical reform of the Japanese system of banking supervision, the new arrangements for conducting supervision in the United Kingdom, or the extensive program, undertaken over the past few years, to consolidate the complex system of banking and financial supervision in the United States. In particular, whatever the complexity of the institutional debate in the United States, it is quite interesting to consider that the proposal to replace the current framework with a Federal Banking Commission was eventually abandoned, mostly on the grounds that a stand-alone institution might have lacked the vital contacts with the financial industry and the ability to efficiently tackle signals of potential liquidity crises.

A final element of both monetary policy and banking supervision is safeguarding the interests of depositors. The present paper has concentrated on the way that banking supervision impinges directly and immediately on monetary policy, via the monitoring of liquidity. In most countries, however, supervisors are also concerned with safeguarding depositors' interests and those of the deposit insurance scheme—that is, with monitoring solvency.

There is no need to discuss here whether these two aspects of supervision are naturally separable and should be assigned to different sets of auditors. One might simply note two well-known models of deposit insurance and their supervision: in the United States (via a federal organization) and in Germany (via several professional organizations).

Supervision of depositors' interests does not necessarily duplicate the work undertaken by other bodies even when the same risks are being analyzed (solvency, concentration of lending, and so on), since the approach, training, and methods needed for the two areas are different. Nonetheless, the question of the additional cost to the banking and financial sector as a whole cannot be overlooked.

Generally speaking, the need to strengthen and adapt the supervision arrangement should be met in three ways.

First, there should be better coordination between the different types of external controls currently exercised. The existing supervisory arrangements should be fully exploited, such as by improved cooperation between banking supervisors and external auditors. Steps have already been taken to this effect in France.

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16This question was briefly touched on when discussing the emergency action that may be taken at the initiative of the governor of the Banque de France.
Second, continuous improvements are needed in the professional training given to supervisors. This is one of the basic concerns currently felt by all the major central banks and banking supervisory authorities. More focused and more frequent supervision is needed, requiring staff who, except in a few cases, are not career specialists in a narrow field but who can tackle a variety of problems at a very high level of competence.

Third, internal controls need to become more widespread within each institution.

What sort of link can be established between these "intermediate objectives" of banking supervision and the conduct of monetary policy? It could be found in an attempt to maintain the efficiency of the two central functions of the banking and financial system referred to at the beginning of this paper, namely providing information and ensuring liquidity, at a time when some parts of this system are changing at an ever-increasing rate. These functions also lie at the heart of monetary policy.

**Conclusion**

An analysis of the role of the central bank reveals a great diversity of approaches both in theory and practice among various countries. No conclusive argument at the theoretical level appears to support the view, which seems to prevail today, that the banking supervisory authority should be entirely independent of the monetary authority. At the practical and institutional levels, different countries' systems operate according to very different principles but have still proved to be effective.

It should not really surprise anyone to hear that monetary policy cannot afford to ignore the demands of banking supervision. Likewise, if an ever-widening gap seems to be developing between principle, especially in the matter of strict functional separation, and practice, which is often characterized by a more or less officially acknowledged interdependence between institutions, this is probably inevitable. It may be frustrating to be unable to identify an abstract model that is superior to all the others in terms of preventing crises and minimizing the cost of adapting the banking and financial system to the trends in the underlying economy. But, from a practical point of view, there is no denying that, given the cultural and political framework in many countries (especially emerging countries), entrusting banking supervision to a special department of the central bank may be considered, at least in a first stage, as the most efficient way to
address three basic requirements: independence from political pressures, coordination of monetary policy and banking supervision, and logistical reliability.

Most certainly, every national supervisory system is peculiar and cannot be transposed without caution, whatever its own efficiency: for example, the U.S. institutional framework might be extremely complex to manage in a country that lacked the adequate institutional experience of checks and balances and cooperation. The institutional arrangements arising from the EMU represent a new and original response to the question of the relationship between the central bank and banking supervisory authority. While still respecting, in accordance with the principle of subsidiarity and that of efficiency, the differences in the practical arrangements in different countries, the European System of Central Banks aims at a separation between monetary policy (to be decided at the European level) and banking supervision (to be conducted at the national level). The treaty is fairly clear on this point and meets with the political intentions of the economic and monetary authorities in the various countries. However, it is worth noting that the treaty does not rule out exchanges of information and views among national banking supervisors, the national central banks, and the European Central Bank. Nor does it preclude that the European Central Bank should participate in the debates over such general issues as the stability of the financial system and overall banking soundness.

In view of such diversity, there is no one simple answer to the complex question of the relationship between a central bank and the banking supervisory authority. Nor is there a list of criteria to help assess how effective the various countries’ systems of banking supervision are. It is clear, though, that no system places its monetary and banking supervision authorities in watertight compartments, and it is in both their interests to cooperate if they do not already have close institutional or operational ties. Such a pragmatic approach need not necessarily be a source of concern.
Banking crises—and therefore banking system soundness and supervision of banks—have become the “issue du jour”—to use an expression that the First Deputy Managing Director of the IMF, Stanley Fischer, used in a recent roundtable discussion. This has brought the importance of supervision and prudential regulation (of banks) to the forefront of monetary and financial management, as predicted two years ago on the occasion of the Sixth Seminar on Central Banking on *Frameworks for Monetary Stability* with remarkable prescience by Manuel Guitián, Director of the IMF’s Monetary and Exchange Affairs Department.

At this stage in the seminar proceedings—with earlier presentations having established without any doubt the macro/micro linkages of monetary policy and banking supervision—it is fitting that there should be a paper that focuses on the controversial issue of who should be responsible for banking supervision.

Indeed Pierre Duquesne’s paper, which analyzes where the locus of responsibility for banking supervision should lie from the perspective of the overall efficiency of monetary policy and banking supervision—and whether institutional responsibilities for each function should be independent, answerable to some joint authority, or to one body, that is, the central bank—is a thoughtful and well-crafted presentation that is interesting, instructive, and timely. It presents the theory and then the reality. There is not much to disagree with, except to raise a few questions at the end of my comments. In my remarks, I would like to focus on and expand a few issues that underpin Duquesne’s analysis, including reference to an IMF paper prepared two years ago that compliments his work. The following points are worth considering:

- Duquesne’s opening remarks refer to the former Federal Reserve head, Paul Volker, and his comments that some central banks were founded more out of concern about banking stability than ideas of monetary policy as we know them today. Indeed, one could extend this notion to some of the instruments of monetary policy, such as reserve requirements and liquidity ratios, which have their genesis in prudential regulation and concern for the soundness of banks (this was certainly the case in the United States in the early days of the Federal Reserve System).
• The point above and many of Duquesne’s other comments—such as those refuting the assumption of banking neutrality and highlighting the shared task of monetary policy and banking supervision functions in monitoring liquidity in the money market—strengthen his well-marshaled case against the two classic arguments for keeping monetary policy and banking supervision functions separate, that is, concerns about conflict of objectives and the need for market discipline, including constraining moral hazard. On the market discipline issue, a real challenge is to contain systemic risk while minimizing moral hazard. Duquesne’s point on the shortcomings of deposit insurance compared to the lender of last resort in this respect is well taken.

• His justification for central bank involvement in banking supervision based on the necessity to ensure security of the payments system through the management of bank liquidity and the need to prevent systemic risk through the lender-of-last-resort facility are consistent with best practices and recent trends in banking systems. In this case, he recognizes the imperfections of the credit market, particularly, the maturity transformation role of banks and their risk exposure in interbank markets, as well as the growing role that central banks are obliged to exercise in promoting sound and safe payments settlement arrangements. Indeed, these points were also forcefully made by Eddie George in his paper presented earlier in this volume (see Chapter 11) in substantiating why banks are special and in justifying the macro-prudential supervisory role of central banks over banks. This view was also endorsed by Donald Brash in his presentation (see Chapter 16).

• In sum, Duquesne’s line of argument logically supports and leads to his conclusions that no one institutional model of banking supervision is superior to all others, and there are no grounds in theory for claiming the superiority of the argument that the banking supervisory authority should be strictly independent of the monetary authority. I would have little difficulty in agreeing that the case he makes “tips the balance in favor of central bank involvement in the management of the banking system in collaboration with the banking supervisory bodies.”

• Having established his case for central bank involvement in banking supervision, Duquesne seems satisfied to let it rest on the conclusion that there are no theoretical arguments to support institutional independence between the monetary policy and banking supervision authorities.

This latter approach may be wise, especially in light of the fact that there is no single all-embracing institutional model. But his statement
that this conclusion is contrary to the most widely held view nowadays is somewhat surprising given that the majority of the world's central banks are involved in banking supervision. José Tuya and Lorena Zamalloa in their paper, "Issues on Placing Banking Supervision in the Central Bank" show that, in over 60 percent of IMF member countries, banking supervision is conducted by the central bank.¹ This is not a significant point for debate, however, because in comparing the French system of banking supervision with those of a range of other industrial countries in the final section of his paper, Duquesne amply illustrates that institutional interdependence between monetary policy and banking supervision functions is more common than might appear to be the case—a point which Eddie George also makes.

Recognizing these institutional arrangements for monetary policy and prudential supervision functions very often reflect social and political, historical and cultural factors, two broad conclusions can be drawn on the locus of responsibility issue from Duquesne's overall presentation and other literature on this subject.

First, regardless of where formal institutional bank supervisory authority is vested in a country, the central bank has to have a close involvement in prudential supervision and monitoring of the financial system—if only to ensure that monetary management, particularly when conducted through indirect instruments, is based on market discipline and leads to competition and efficiency. If the formal locus of such responsibility, especially the micro-prudential aspect, is outside the central bank, then it need not participate directly in making decisions on troubled institutions. While this may keep the central bank from having to take overt actions that might conflict with its well-recognized policy aim of price stability, substantive participation in macro-prudential supervision aimed at containing systemic risk is nevertheless necessary for the effective discharge of lender-of-last-resort and liquidity management responsibilities, especially to maintain market discipline in lender-of-last-resort arrangements.

Second, the complex institutional arrangements for banking supervision among the list of countries mentioned in Duquesne's presentation highlight the basic importance—whatever the institutional framework is—of establishing good policies to keep the banking system sound. These institutional arrangements involve the relation to

the different concepts of universal banks together with the unevenness of supervision by central banks and other bank regulatory agencies, not to mention the "original" approach to banking supervision responsibilities in the new European central bank. These policies were elaborated in detail in Carl-Johan Lindgren's presentation earlier in this volume (see Chapter 12), and of course many were highlighted in both Duquesne's and Artopoeus's presentations (see Chapter 17).

It is interesting to recall that in the fifth central banking seminar in 1990, which had as its theme the evolving role of central banks, the views on the role of the central bank in prudential supervision and on the locus of this responsibility were somewhat more polarized than nowadays; nevertheless, there was little disagreement between both camps that, when the responsibility for the two functions of monetary policy and prudential supervision on banking is institutionally separate, economies of scale in information gathering and the efficient implementation of monetary and supervisory actions call for close coordination by the supervisory and monetary authorities.

Finally, two questions arose in regard to Duquesne's presentation. First, the natural mobility of Bank of France staff between monetary policy and supervision areas seemed to be a very practical aspect of interdependence and enhancement of collaboration between the two functions. Yet, it is surprising to note that in its financial market intervention area the Bank of France had no access to inside information on the quality of counterparties. (Paradoxically, the Bundesbank—portrayed as a separation model through the information gathered by its regional network—may have access to more information on the condition of counterparties than the Bank of France.) How then does the Bank of France monitor risk in relation to liquidity management and lender-of-last-resort transactions?

Second, although best practices can be drawn from countries with well-developed banking systems in relation to standards and guidelines for prudential supervision and regulation of banks, the question remains of just how to advise developing countries and those in transition on how to build and enhance their financial systems. What advice can be given to those developing countries and those in transition about the best institutional framework or model to adopt for licensing, regulation, and examination in their respective countries, particularly in view of the complexity of models and institutional practices in the countries surveyed?

In those countries in which the IMF has provided technical assistance, invariably central banks have taken on oversight responsibilities for banking supervision and payments system reform. This is the situation especially in countries where banks are the dominant finan-
cial intermediaries. Where there is a need for consolidated supervision of conglomerates, there may be a strong argument for an umbrella-type supervisory organization incorporating all financial supervision under one roof.

Indeed the Tuya-Zamalloa paper in this respect provides a useful background study on the institutional framework for banking supervision that complements Duquesne’s own analysis. One of its conclusions, for example, is that the decision to place banking supervision within the provence of the central bank should be handled on a case-by-case basis. This is particularly true for developing countries and economies in transition where institutions and legal systems are in the process of development and human capital is scarce, making coordination between institutions often difficult.

In conclusion, it is interesting to note that John Maynard Keynes, in his pre-Bretton Woods drafts, had a view that the IMF Board of Directors should be composed of cautious bankers. I am not sure that his wish was realized, but, if he were alive today, he could take some satisfaction from the increasing importance now being attached to banking and financial system soundness in the IMF’s economic surveillance work of member countries.
Mr. Assiga-Ahanda noted that the proposed European arrangements differed markedly from those for the BEAC countries, where there was a monetary union and now an economic union being set up, and where there was supranational rather than national bank supervision. He asked Mr. Duquesne to explain why, in the European Union, supervision would continue to be at the national level. Mr. Škreb asked Mr. Duquesne to explain who was responsible for the failure of Credit Lyonnais; who had decided what regarding policy action; and were press reports of a cost of 100b FF to French taxpayers correct. 

Mr. Khandruyev also enquired about Credit Lyonnais in light of Mr. Khandruyev's own view that French bank supervision was the most sophisticated in the world. Given that the French Banking Commission monitored internal auditing of French banks, was Credit Lyonnais's failure a result of a breakdown of this monitoring or were other factors, such as macroeconomic developments, more important?

Mr. Artopoeus made two points in response to Mr. Talwar's formal discussion of his paper. First, he agreed that credit risk was still the most important risk facing banks. But market risk, and interest rate risk was catching up—especially market risk. Second, past concern of supervisors about excessive disclosure was changing. So far, in Germany at least, banks could build up hidden reserves and use them in a hidden way. But it was increasingly recognized that the use of hidden reserves could lead banks to misbehave in so far as it allowed them to hide the consequences of bad management from the public. Furthermore, once these reserves were depleted without the banks' problems having been solved the public might suffer a worse surprise than by having been fully informed of the banks' situation right from the beginning. The public needed to know about a bank's true situation at all times in order to exercise disciplinary pressure on it.

In response to questions from the floor about Crédit Lyonnais, Mr. Duquesne made five points. First, internal controls at Crédit Lyonnais were inadequate and this was far more important than any failure of external supervision. Second, the shareholder (e.g., the state) did not foresee the problem. Third, the French Banking Commission was the first to see the problem at Crédit Lyonnais. The Commission did not spot the magnitude of the problem at first, but the figures of losses it provided—in retrospect very small—were thought by the public at the time to have been excessively high. Fourth, the bank could be privatized within two to three years. Fifth, the figures quoted by one participant referred to the cost to French taxpayers over
twenty years and represented about 1 ¼ percent of French annual GDP.

In response to Mr. Assiga-Ahanda’s question, Mr. Duquesne said that the decisions made in the European Union concerning the level at which supervision would be carried out were associated with theoretical and practical problems. Supervision would continue to be done at the national level because of the need for supervision to be done “close up”; a single agency could not be expected, for example, to supervise around 3,500 German institutions and around 1,600 French institutions. In any case, there would be close coordination between the various national supervisors and the single market and single monetary policy were important. Mr. Artopoeus added that, during the Maastricht discussions, a number of countries had supported a supervisory role of the future European Central Bank, but Germany and France had opposed it. Nonetheless, he continued, one could never tell what would happen in 20 years’ time.

In response to Mr. Downes formal discussion of his paper, Mr. Duquesne made three points. First, his paper’s conclusions about whether supervision should be inside or outside the central bank reflected objectivity rather than shyness. Second, it was true that the existence of Chinese walls implied that the French central bank did not have detailed information on its own counterparty risk, but: it could be given that information in very special circumstances; provision of that information could be counterproductive, in that it could inappropriately stop lending to the bank and could thereby exacerbate problems; the Governor and Vice Governor were, in any case, on both sides of the Chinese walls. Thirdly, Mr. Duquesne said that, for emerging countries, on balance, supervision should be inside the central bank. But there had been banking crises both in countries with supervision inside the central bank and in countries with supervision outside the central bank.
Part VIII

Responding to Unsoundness in the Banking System
There are many different causes behind bank failures, with losses in the credit portfolio being only one, albeit an important one. The theme for this paper is based on bank problems emanating from substantial loan losses of which a large share stems from the property sector.

In order to present a comprehensive picture of the process to recover loan losses in ailing banks, it is necessary to start at an early stage in the process—even before the bank is certain that a loss has occurred or has determined the size of it. First, one must assess the magnitude of both the individual potential loan losses to a bank and its aggregate potential loss. If several banks have simultaneous loan loss problems—the country is facing a systemic bank crisis—the total effect on the banking sector and the economy as a whole must be considered. The authorities must judge how best to solve the crisis. The closer the situation gets to a systemic crisis, the larger is the likelihood of state intervention, including state financial support. In the process, the state may assume ownership of banks or companies especially

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Figure 1. Bank Restructuring: A Step-by-Step Process

Develop a perspective on the future structure of the banking industry and the potential for efficiency improvements

Assess the strategic importance and viability of individual banks’ operations

Develop general principles and strategies for the handling of bad assets

Classify assets and assign management responsibilities

Evaluate the future earnings-capacity and structure of support for individual banks

Value assets

Capitalize the bank and/or the separate entities responsible for bad assets

Source: Arne Berggren, IMF Workshop on Bank Restructuring, 1996.

established to handle non- or low-performing loans and other assets. Figure 1 describes such a model.

It is important to recognize that, irrespective of what support measures are applied, the loan losses have already occurred or are likely to occur in the immediate future. The first task therefore is to minimize the losses (and later to recoup as much as possible). This task is in itself very important and may save large sums. However, the recovery of losses should be seen in conjunction with the handling of the remaining “good parts” of the banks. Proper treatment of the problem assets will facilitate the future operations of the “good bank” and enable it to create profits again, which could compensate the state for earlier disbursements through future payments of dividends and taxes.
Therefore, solutions to bank problems must encompass both the “good bank” and the “bad bank” (or, more accurately, the bad assets).

A proper valuation of the bad loans and other assets is important not only for the loan recovery process but also for general economic conditions. For instance, one often hears the argument that a bank (or the state, when assuming responsibility for the handling of a problem bank’s bad assets) should not liquidate a company since that would lead to large macroeconomic losses—such as increasing unemployment in an already underemployed geographical region. Thorough assessments of this company’s future development, including cash flow and earnings analyses, would present a fair picture of the financial cost of not liquidating. This could then be compared to the structural gains of keeping the company afloat. The state may still decide not to liquidate the company, for structural reasons, but this should not be considered as a measure within the bank support framework.

When the bad assets are ready for sale the state may face another macroeconomic problem: how will the sale affect the market in general? A typical example can be derived from the Swedish bank crisis. The state assumed ownership of large quantities of real estate holdings, which had formerly been in the banks’ hands as collateral to loans that had become nonperforming. The state aimed at selling these assets as soon as a reasonable price could be obtained. However, there was simultaneously a large overhang of unsold real estate held by the banks or other market participants. The market was very weak and was supposed to remain so for a number of years. The dilemma for the state was whether to maximize its own profits at the risk of ruining the real estate market for several years more.

**Background to a Bank Crisis—The Swedish Case**

This paper is built on the experience of the bank crisis in Sweden from 1991 to 1994. In my view, most of these experiences, including the methods and solutions adopted by the national authorities, are of a general nature and can be applied to other situations and other countries. Nevertheless, it should be noted that Sweden is a small country with a limited number of banks, which facilitated the handling of the crisis.

To better understand some of the choices that the authorities and the banks faced in the crisis a short background is helpful. This description has a sketchy character and covers only the most pertinent points.

During the 1980s, full deregulation of the Swedish financial markets took place. At the same time, there was a protracted economic
boom that lead to high investment, in the real estate sector among others. Prevailing tax rules favored borrowing over saving. Further, because of earlier restrictions on borrowing, there was strong pent-up demand. Bank managers wanted to gain market shares and lowered credit standards, despite the fact they were lacking adequate knowledge and procedures to make proper credit assessments for new borrowers and new loan categories (such as lending to unfamiliar economic and geographical sectors). The volume of bank credits expanded rapidly from 1985 to 1990, and lending from banks and mortgage institutions increased from 85 to 135 percent of GDP (see Figure 2). A large part was lent to investors in housing or commercial real estate. Another part was devoted to other investments, most of it collateralized by real estate. Prices in the real estate market rose by 20 to 30 percent yearly during the latter half of the 1980s.

Around 1990, several factors caused the Swedish economy to deflate, hitting the real estate market particularly hard. Over an eighteen-month period, property prices plummeted by more than 50 percent in some locations. Since the cash flow was insufficient to pay interest on the loans, many property holders went bankrupt.
The situation worsened in 1992. A crisis for the Swedish currency, which was then linked to the European currency unit (ECU) basket of currencies, led to very high interest rates (peaking at 500 percent) and later to a substantial depreciation in the krona when it started to float. Both these events undermined the capability of many borrowers to service their debt. (It should be noted that many borrowers had taken loans in nondomestic currencies to benefit from their lower interest rates.)

The krona crisis also had more general repercussions for the Swedish banking sector and the Swedish economy as a whole. Foreign counterparties questioned the creditworthiness of Swedish banks and were reluctant to prolong existing credit lines necessary for short-term financing. Loans from the central bank could compensate for part of this loss but could not stem the substantial loss of confidence and the shrinkage of credit lines. Without swift and resolute action, there was a risk that the loss of confidence in the banking sector, not least by non-Swedish lenders, could spread to the government's own substantial borrowing abroad. Thus, the government had to handle the double problem of a systemic crisis (five of the six major banks were affected) and a spreading loss of confidence. In response, the government issued a guarantee stating that no depositors, lenders, or other counterparties to Swedish banks—with the exception of equity holders—were to suffer any losses from their transactions with these banks. A few months later, this guarantee was confirmed by the parliament, which also formulated a general plan for the solution of the crisis. This plan provided, among other things, for unlimited use of public funds to finance support agreements between the government and the banks. The plan also included the establishment of a new agency under the Ministry of Finance, the Bank Support Authority (BSA), to handle all matters pertaining to support issues.

Against this background, these were the main considerations for the authorities:

- the need to show resolute and quick action to restore confidence in Sweden and abroad;
- the need to handle a crisis affecting almost all of the major banks; and
- the need to handle substantial amounts of bad debts, a large part stemming from the collapse of the property market.

**Bank Support Authority**

Considering the severity of the problems and the need to restore confidence, it was a priority to start active support to the banking sec-
tor as soon as possible. Preliminary work could be done at the Ministry of Finance, but for such a wide-ranging crisis, its resources—such as staff numbers and skills—were not adequate. It was decided to set up an agency under, but separate from, the ministry. There was no time to build a large organization so the BSA started with a small number of employees and hired many outside consultants—mainly from abroad—with experience managing other crisis situations.

Banks requiring financial support from the BSA were asked to follow a certain procedure. After a preliminary application, the bank had to submit information for an assessment of its current situation (especially financial) and future prospects. Then the BSA would judge whether there was a need for support. If it was needed, more detailed information was required, including a comprehensive valuation of all bank assets—performing and nonperforming—together with a detailed assessment of future cash flows and profits from the bank’s ordinary operations. On this basis the BSA, after considering the views expressed in consultations with the central bank and the supervisory authority, took a preliminary decision, which was forwarded to the Ministry of Finance for final endorsement. The decision stipulated the form and conditions under which support would be provided.

The BSA operated on the basis of a number of general principles, particularly to minimize the use of state (taxpayers’) funds and to assure banks of equal treatment. However, since all banks were affected in different ways, some flexibility in the support measures was also necessary to achieve optimal results.

The Hammock Approach

A fundamental tenet guiding the support operations was the hammock approach (see Figure 3). All financial information obtained from a bank and from other sources, including macroeconomic data and forecasts, was fed into a forecasting model. This model could then produce a likely estimate of the bank’s financial development over the next three to five years.

The result was used for different purposes. First, it was used to decide whether the bank would become profitable again within a reasonable timespan. If this was not the case—see Bank C in the graph—the bank would have to cease operations and be liquidated or merged. On the other hand, if the bank was considered likely to come close to the minimum legal capital ratio for a short period—as with Bank A—this would primarily be a matter for the present owners, maybe with some minor underpinning from the state, perhaps in the form of guar-
Bank B illustrates the case where banks need substantial support to compensate for already incurred losses. However, to qualify as a B-bank the analysis must show that the bank was financially sound in its basic operations and would be profitable again in the medium term and thus had a viable future.

In addition to this analysis for the individual banks, the BSA also considered the structural implications of support for the banking sector as a whole. An explicit goal of the support operations was to forge a strong and competitive banking sector in Sweden (although fully open to access from abroad). This goal came into the forefront when one C-bank was to be merged with another bank. Since the state for financial reasons had been forced to assume ownership of the C-bank it was also responsible for the operation of selling the bank. When choosing the other party of the merger both financial and structural aspects were taken into consideration. Luckily, the solution finally found in this case was judged, by independent consultants, to be the best one on both scores.

As mentioned, the first step in the hammock approach is to decide whether a bank is viable for future profitable operations and thus for financial support. In the next stage the question is to decide how much
financial support is needed. The balance here is between using a minimum of government funds while still providing the bank with adequate capital to enable fair competition with other banks. It should also be borne in mind that too little capital would risk short-term setbacks if the bank has to ask the BSA for more support. This would be politically embarrassing and could reduce confidence in the support operations of the BSA.

One way out of this dilemma is to provide part of the support in the form of guarantees. If the capital ratio falls below a certain threshold, the guarantee is converted into loans or equity capital. Another way of reducing the uncertainty concerning the bank’s future is to place the major part of its bad loans and assets with another company, not owned by the bank. That relieves the “good” bank of the volatility following from the value fluctuations of the bad assets and the costs of financing them. (This separation of assets is discussed later in this chapter.)

The hammock approach was used in a similar manner both when refinancing the good bank and when funding the company handling the bad assets. In both cases the principle of minimal but adequate financing applied. For an asset-managing company, the cash flow is highly negative in the first stages but turns gradually positive when asset sales start. Relatively large funding is necessary to bridge that gap.

The Hole

In order to refinance the problem bank to the level needed for future operations, the magnitude of losses—actual and probable—must be assessed. This quantity was termed “the hole” because the sum of the losses forms a hole in the balance sheet and capital of the bank. It is important to note that the hole is something that has already been incurred. The bank owners and the authorities cannot reduce it by neglecting it, only by acknowledging it and taking measures to contain it. Banks or countries that chose to hide the full extent of the hole have in reality suffered because uncertainty among investors and other counterparties leads to less favorable trading conditions, such as interest premiums on lending to the bank or country concerned.

Of course, the hole cannot be measured with a high degree of precision. It is an aggregate estimate based on a careful valuation of all the bank’s assets, performing and nonperforming. The valuation includes forecasts of the future behavior of borrowers, for instance the likelihood that they will not perform on their obligations to the bank and, if so, what the value of the collateral will be if collected. This
leads to only a rough estimate of the hole and of the need for financial support. However, even a rough estimate is adequate in a crisis situation.

Measuring the Hole

In Sweden, a bank applying for support had to submit a very detailed valuation of all its assets. Special emphasis was placed on nonperforming and otherwise doubtful assets and their corresponding collateral. The aim was to assess the probable total loss amount, the hole. But the bank’s other assets were also valued in order to make an estimate of the bank’s future earning capacity.

Each loan was valued according to a seemingly simple and rather crude method: the risk of loss—within the next twelve months—was multiplied with the calculated value of the loss. For example, if the loss risk is 50 percent and the nominal amount of the loan is 100, the expected loss is 50 on the assumption that the whole loan will be lost. When there is collateral this was included in the calculations in the following way: the loss risk is still 50 percent, the loan amount 100, and the collateral is valued at 80. The calculation is now: “The risk amount” 20 (100 minus 80) multiplied by a risk factor of 50 percent, which results in an expected loss of 10. Since the analysis is built on probabilities, the outcome often will not be correct for each individual loan but should provide a reasonable estimate for the total portfolio.

In practice, however, the valuations were much more difficult and time consuming than indicated above. As a first step each bank had to compile a comprehensive list of all outstanding problem loans and assets. These loans and assets were then categorized and regrouped. (For example, different branches of the bank may have had claims on companies within the same company group. If this company group had financial problems, all claims should be valued together.) Since a major part of all the banks’ claims were related to property loans or loans collateralized by property, the BSA laid special emphasis on a fair and coherent valuation of property. A special property valuation board, composed of independent property experts, was established at the BSA to formulate valuation standards for the banks to apply. In order to ensure that the banks’ valuations conformed with market practices a large sample, about 25 percent, of the assets was also valued by independent market experts to get a “second opinion.” The valuation board at the BSA then further verified the accuracy of the banks’ valuations by duplicating the banks’ valuations on a small sample (approximately 5 percent). If the property valuation board found that a bank either over- or undervalued its assets, it had
the right to inform the BSA which could then adjust the bank’s estimated amounts when assessing its financial situation and support needs.

The basic principle of the property valuation was to assess a market value. It should not reflect a “panic sales value,” which is far below a sales value under nonforced circumstances. Even so, it was often difficult to find a reasonable market value in a situation when the Swedish property market was more or less nonexistent. A supporting method of calculation was then added, based on the present and future cash flow generated by a specific piece of property. As a principle, the net yield (rent revenues less operating costs, including interest payments and taxes) should be in line with comparable properties in the market. The value of the estate was then assessed accordingly (after adding the yield premium an investor in properties will demand for not investing in risk-free assets).

Similar cash flow calculations were also used to value loans to industry and other businesses. Simply put, the valuation was based on calculating which amounts of write-offs and/or capital injections from the bank the borrower needed to return to a positive cash flow after servicing his or her financial obligations.

All the valuations were performed in accordance with a common—for all support-seeking banks—macroeconomic scenario supplied to them by the authorities. To achieve coherence, it was also important that all assessments referred to one specific day. After having “calibrated” the assessments in these ways, the BSA could then use different dates and economic scenarios to make sensitivity analyses of the data. It was also essential that all banks used the same underlying assumptions so support measures could be decided using comparable information.

Filling the Hole

The hole was filled in two ways: by recapitalizing the “good part” of the bank and by funding the separate entity to which the major part of the bad assets were transferred. In order to fulfill statutory capital requirements, a certain part of the state financial support had to be in the form of equity or equity-like instruments. The residual could be in the form of loans or guarantees, although guarantees do not improve the bank’s cash flow and are therefore less helpful. Loans, however, have the disadvantage of not providing a stake in the so-called upside. When the bank becomes profitable again the equity holders benefit from increasing equity values, but a lender will receive only the negotiated interest rate.
It is appropriate that the present equity holders lose their ownership of the bank in relation to the amount of the financial contributions from the state. There is no reason why owners whose bank has failed and who are not willing to make new investments in the bank should benefit from the expected increase in the value of the bank resulting from the state’s support measures. Such behavior would also be difficult to explain to the public-at-large.

The Asset Management Company

An asset management company (AMC) is the entity created to handle the problem loans and assets of a bank. AMCs existed in the United States long before the bank crisis in Sweden. Some specific features of the Swedish AMCs were the large share of property-related loans and assets in conjunction with a less liquid market. The character of the bank crisis as being systemic and having macroeconomic repercussions was also taken into consideration when forming the Swedish AMCs.

Definition of Terms

The term “debt resolution agency” is not always used consistently, and it may be helpful first to use two other terms:

- Bank support authority: This could be operated by the state or by a private organization, such as a deposit guarantee fund. Usually, the task of the authority is to assess needs and to provide support to banks and to depositors. It may also be given the task to solve bank problems by facilitating structural changes such as mergers. But the authority should not, normally, be involved in sales of assets on a piecemeal basis because that might confuse its role and force it to build a large and heterogenous organization. The authority might, however, have the mandate to sell the whole asset portfolio of a bank to facilitate a quick reconstruction or merger.

- Asset management company: This is a company to which the bad loans and assets are transferred from the problem bank. The AMC could be owned and funded by the state or by private owners. When restructuring severe bank problem cases the AMC must be totally separated from the parent bank, but in other cases the AMC might be a subsidiary or even a division within the bank. Irrespective of its organizational character, the AMC has a straightforward work plan. First to convert all loans into assets
(real or financial). Then to restructure ("package") these assets into easily sellable forms, and finally to sell them. The overriding goal of the AMC is to maximize the net sales value, after operational and financial costs, of its assets.

**Arguments for Creating a Separate AMC**

From a funding point of view, there is no restriction on keeping the bad loans and assets in the bank itself. Financial support from the state and other sources could fill the hole of earlier losses to enable the bank to continue its activities and to finance the holding of its bad assets. This is not a practical solution, however, if the amount of bad assets is large, and it may not provide the best economic result for several reasons.

First, the handling of bad loans and assets requires other skills than are normally available in a bank. Real estate specialists, liquidation experts, and people with insights into various industrial sectors may be needed.

Second, managing the bad assets would interfere with the daily running of the bank. One could easily envisage that important decisions regarding bad assets would receive lower priority than incoming new business to the bank. If not separated, the bank's management and board of directors would have to use scarce time to discuss matters relating to bad assets instead of focusing on current business and strategy planning.

Third, both the good bank and the AMC could be given independent and transparent profit goals if separated. That would provide incentives for managers and staff.

Fourth, if the state owns the bank with the aim to sell it, a separation will facilitate a future sale of the bank. It will also probably fetch a higher sales price since the investors will have a clearer picture of the real value of the bank. In effect, the latter also applies when a separate AMC is funded by a bank that has not received state support.

**Private or State-Owned AMC?**

When a substantial amount of bad loans and assets has to be transferred to an AMC over a short period, it is normally impossible to find a private investor willing to own such an AMC without asking for far-reaching state guarantees covering the future value of the asset portfolio. The state is usually in a more favorable position owning the AMC itself rather than providing guarantees since it might then benefit from any future upward price movements (the so-called upside) of
the AMC’s assets. In addition, it is difficult to formulate guarantees that would give a private owner strong incentives to sell the assets at the best prices. This could lead to further losses for the state.

Another option when a single bank has a medium to large amount of bad loans and assets is to remain within a subdivision or subsidiary of the same bank. In doing so, the bank would benefit from its knowledge and close contacts with borrowers. If the state has provided financial support to the bank, it may ask for a share in the “upside” of the AMC subsidiary.

Finally, a reasonable amount of small problem loans should remain in a bank’s ordinary organization, even if the bulk of bad assets are transferred to a separate AMC. Apart from the argument of “equal treatment,” there is a need to maintain the capability within a bank to handle workout procedures. In the Swedish case, all bad loans and assets with an assessed individual value under US$1 million remained in the problem banks and were not transferred to the AMC.

How Much Should Be Transferred to the AMC?

An important question is how large a portion of the bad assets to transfer from the good bank to the AMC. The reasoning here is structural rather than financial. If all bad assets were transferred the good bank would be in excellent condition and would surely have a strong future development. This is probably not an optimal solution, however, considering the competitive situation in the banking sector as a whole. Why should a bank be given this favorable position, especially since the same bank recently proved itself unsuccessful in its credit operations? Preferential treatment would also cause resentment in the other banks and among the public.

The Swedish authorities decided to leave the problem banks with a ratio of bad loans and assets similar to that of other banks in the market. As noted above, the bad assets remaining with the bank were mainly small ones, those that may best be handled in the bank itself since they do not require special expertise.

How Many AMCs?

We have no rigid views as to the number of AMCs. A very large AMC may obtain economies of scale but could also become unwieldy, which might hamper the ability to react swiftly, such as in sales transactions. Thus, while the number of bad loans to be handled by one AMC could be quite large, it should also be remembered that problem loans and assets require far more work than a similar number of ordinary loans.
Another factor to consider is the extent to which the impaired loans have been “processed.” If most of the loans in an AMC have reached a rather advanced stage, such as being close to the final sales, it may not be efficient to transfer to the same AMC a large number of fresh bad loans. Here, a solution might be to set up a parallel AMC and to merge the two AMCs at a later stage.

**Different Stages of an AMC**

AMCs will pass through the following six phases:

1. **Creation:** “In the beginning there was chaos” says the Bible and this holds true in the case of Swedish bank restructuring. The AMC is normally created in a situation of crisis, general mistrust, and despondency. Rapid action is needed to avoid further financial losses, but the assets are not clearly identified and sorted properly, important documentation is lacking, and the organization is not in place.

2. **Start:** At this stage, the authorities identify, document, and sort out the bad loans and assets, which form the basis for the AMC's activities. They also establish an appropriate organizational structure, which will reflect and facilitate the work process.

3. **Construction:** This phase is dominated by the handling of loans and other engagements. If this is found to be the most financially sound solution, negotiations with a borrower may result in a reconstruction. In other cases, loans will be transformed into assets (real estate, equity, or other), which are seized by the AMC. In some cases, bankruptcy is the only solution.

4. **Consolidation:** Almost all holdings are now in the form of assets. Some are financial but most are real, such as industrial companies and real estate. The AMC is now restructuring and reorganizing its holdings to increase sales values.

5. **Dismantling:** Most of the assets are now ready to be sold. The AMC is looking for buyers and is conducting sales negotiations.

6. **Repayment:** The AMC’s outstanding loans and other obligations are honored, and any net worth is repaid to its owner.

These phases are discussed in greater depth below.

**Creation Phase**

Creation is a critical phase because important decisions must be taken under duress; politicians, the general public, and other market participants exert pressures on the process. The decision to establish the AMC, its general organization, activities, and goals must be clear,
yet flexible. Sweden's experience shows that during the life of the AMC shifting external circumstances may motivate changes.

The sole goal of the AMC should be to derive a maximum value out of the resources transferred to it. Such an unambiguous goal facilitates the work of the AMC and sends a clear message to politicians, the public, and market participants.

**Starting the AMC**

As soon as the AMC has started operations, the transfer of assets should begin. In Sweden, a basic principle was that the transfer prices should be set at fair values, reflecting market prices. For this purpose, the earlier careful valuation of a bank's assets when applying for state support was useful, even if it had to be updated and supplemented. Using realistic transfer values fulfills several objectives:

- It provides a better basis for the funding of the AMC. Normally, the funding of the AMC is such that when all assets are sold no money should be left. If the assets are transferred to the AMC at too high values, there will be a need for further write-downs and infusions of capital. This is usually politically inconvenient and may send negative signals to the market—perhaps that there are further losses “hidden” somewhere.
- It provides a clear goal for the management and staff of the AMC. If they can return some of the original equity capital in the AMC, they have done a good job, assuming that market prices do not move in unexpected directions.
- It provides clarity to the “good bank.” The good bank is financially compensated for the write-downs of the assets transferred (as well as for any remaining bad assets). This gives the good bank a fresh start.

It is important to emphasize that there are no financial gains to be derived from setting unrealistic (too high) values on the bad loans. The losses on these loans have already occurred—or are certain to occur—and they must be covered one way or another. By making the valuation fair, the authorities, the public, and other participants in the financial markets obtain a transparent picture of the situation. This helps restore confidence. The amount of support from the state is not dependent in the long run on the valuation of the assets transferred since it must still cover the real losses. Depending on the valuation, however, a larger or smaller portion will be provided to the good bank or to the AMC respectively.

The first handling of the bad loans and assets at the AMC consists of their thorough classification and documentation. Even though
much work was done before the transfer, it is still necessary to sort the
loans/assets into different categories to receive appropriate treatment.
Usually, much of the necessary loan documentation is lacking and
must be supplemented or reconstructed.

In this phase, the detailed organization of the AMC is built and
staffed. It is often useful to shape an organization that reflects the
structure of the various categories of holdings. In one Swedish AMC,
there were subdivisions for industrial holdings and for real estate
holdings. The subdivisions took the legal form of normal limited com­
panies under a common parent company. The remaining loans and
other liquid assets were held in another subsidiary to the parent, in this
case a finance company. By dividing the AMC into independent com­
panies, it was possible to increase efficiency by creating smaller and
more homogenous units with distinct goals.

When organizing the AMC, one must pay special attention to incen­
tives, because the activities of an AMC differ in many respects from
those of other organizations. For instance, the ultimate goal of the
AMC is to sell all its assets and to extinguish itself. Incentives, but
ones not so generous as to upset the public and the political leaders
and thus undermine the credibility of the AMC, must be set so man­
agement and staff strive for this goal instead of unnecessarily pro­
longing the life of the AMC (and their own jobs) by so-called empire
building. Incentives, such as bonus payments, must also be set to
encourage employees to sell or reorganize the assets so as to maxi­
mize net worth. A further category of incentive must be provided to
induce employees, especially key staff, to stay in the organization as
long as they are needed, instead of fleeing to safer jobs when the end
of the AMC is approaching.

**Construction Phase**

The next step is to extract the actual value from the loans. This can
be done in several ways. (In Sweden, this process was termed “to
 crunch” the loans.)

The most common method of transforming a loan is for the AMC to
assume ownership of the collateral. (This method may be combined
with the other two methods mentioned below.) Another option is liq­
uidation or bankruptcy, which may be the only way to recover some
money. Since these proceedings normally lead to a large reduction of
values, they should be used as a last resort. However, the threat of liq­
uidation or bankruptcy may be an effective ingredient in negotiations
between the AMC and the borrower. It should also be noted that the
procedure leading to liquidation or bankruptcy is costly and time con-
assuming, especially in the midst of a banking crisis when administrators tend to be overburdened.

Finally, if the underlying, industrial or other, operations are found to be financially viable, a reconstruction may be negotiated. In theory, the terms of the reconstruction should be such that the borrower is able to generate a net future cash flow from the operation large enough to enable him or her to service the reconstructed and reduced debts. In practice, the negotiations may often result in more favorable terms for the borrower. For instance, when a borrower is leading his or her own company, the value of the company may be sharply reduced if he or she were to leave. To avoid this, the lender is willing "to pay a price."

The negotiations between the AMC and the borrower is usually made much more complicated by the fact that several other counterparties to the borrower are affected simultaneously. Some are better positioned to recover their claims (such as those having more senior claims) than others who are less well positioned. These factors enter strongly into the negotiations and may threaten to destroy values by leading to less than optimal solutions. The AMC should establish a reputation of being fair toward other parties. Trust between negotiating parties will increase the chances of obtaining rational and financially better results.

**Consolidation Phase**

During consolidation, most loans are transformed into assets of different categories. The task is to make the assets financially viable and thus attractive for a buyer. A most common cause why the borrowers ran into financial problems was that the revenue-raising capacity of their assets was reduced for some reason (mismanagement, adverse market conditions, and so on). Thus the AMC has to perform a job similar to that of a "company doctor" who is consulted to identify the root of the problem and to propose—even implement—the necessary measures.

For an industrial company, the AMC may have to sell noncore activities and make other operations more efficient by reorganizing and reducing staff. For commercial property and residential homes, several measures may be adopted. At the outset, the AMC is usually holding geographically scattered pieces of property stemming from different claims. In some cases, the AMC is holding pieces of the same properties as other claimants. To facilitate the handling of a specific piece of property and to make maintenance work and services cheaper and more effective, the AMC should regroup its holdings to
obtain synergies. This is achieved by swapping holdings with other parties and by purchasing complementary property. A simultaneous step is to renovate the properties in order to adapt them to current demand. Reducing the vacancy ratio is one of the most crucial factors in improving cash flow, and a better cash flow is pivotal for the market’s assessment of the value of the property.

In this phase the AMC needs to be staffed with specialists (or may hire outside experts) in various fields, such as particular fields of industry, the service sector, or real estate. Both economists and legal experts, as well as industry and property experts, will be engaged. An efficient method of work may be for each specific cluster of connecting assets to form a project group.

This group should be composed of the specialists needed in the specific case. The same experts could be involved in several different project groups simultaneously. There would also be an independent (nonexpert) chairman of each group to coordinate the work. Only in exceptional cases would disagreements within the groups be referred to higher management.

Dismantling Phase

In this phase, assets have reached a state that makes them suitable for sale. The major issue is when to sell in order to obtain the best possible price. The original goals for the Swedish AMCs were long term. The aim was to disinvest all assets within ten to fifteen years. The reasoning was the dismal state of the property market at the time of the establishment of the AMCs. A huge oversupply of property had developed and forecasts for future demand indicated that many years were necessary to restore balance. The AMC feared that selling property at a pace faster than “highly gradual” would result in another downward spiral of prices.

Two intertwined reasons have lead to a significant shortening of this long-term approach. First, the property market improved faster than expected, at least in some locations. Second, this made possible a change in the calculations consistent with the overriding goal of the AMC—to recover maximum values after including all costs, including financing costs.

The “new” calculations were founded on the following basis: If property prices is expected to climb gradually, what rate of yearly price increases are needed to compensate for the financial and other costs of holding onto the assets? This calculation must be performed on each individual asset, since they have different characteristics both on the price/revenue side and on the cost side. The computations often
lead to clear-cut results—for instance, that the value would have to increase by 44 percent over the next five years to justify holding onto it. A sale at present prices would then be assessed in relation to the prospective price five years hence (gauged by the property market expert).

This highly simple and pedagogical method facilitated taking and explaining many decisions leading to more rapid sales. In practice, it led to a radically altered time frame for the dismantling of the AMC. All assets will now be sold within five years from the start of the AMC. Admittedly, at the bottom of the AMC’s “cesspool,” there may be some assets having very low probabilities of recovering any significant amounts. Such assets could be bundled together and sold to an interested party, such as a debt-collecting agency, at a low price and without any guarantees from the AMC.

Apart from the economic rationale of shortening the lifespan of the AMC and the state’s asset holdings, a faster sales pace also has favorable structural effects by reintroducing the assets into the market. It is also a relief politically for the government not to be further burdened with financial responsibility for the AMC.

In the period of selling its assets, the AMC must endeavor to create trust with other parties in the property market. An AMC financially supported by the government may easily, even if undeservedly, attract a reputation for underselling—at too low prices—since losses will be compensated for. Such a reputation will cause ill will and may destabilize the market by increasing uncertainty about the AMC’s goals. The way to avoid this is to formulate a distinct goal of profit maximization and to give the management and the staff of the AMC incentives to adhere to that goal.

Repayments Phase

During the earlier phase of asset sales, the need for external financing of the AMC was gradually reduced and some loans and other subordinated debt were repaid. The final liquidation of the AMC implies transforming all assets into cash and terminating the organization and all its obligations. It is crucial that all steps be well documented to avoid future lawsuits and claims on the owners of the AMC.

The net worth of the AMC would be returned to its owners. Financially, it should be treated as a balancing item in relation to the original outlay. This means, for instance, that if government support to the banks has been financed out of a separate fund, such as a deposit guarantee fund, an equivalent (maybe with interest added) sum should be repaid to that fund.
Selling the Good Bank

As mentioned earlier, the process of recovering financial support to banks is not limited to recouping loan losses. An integral part of the process is the development of the "good bank." If the support measures have been successful, the restructured and trimmed bank should, after some time, be ready once again to generate profits, taxes, and dividends.

In the case where the state has acquired a share of the bank, corresponding to the extent of its financial contributions, it will benefit. When the equity of the bank rises in value due to its increased capital and improved prospects, the state can sell all or part of its holdings. Although the state may face a political dilemma when deciding whether to receive dividends or to sell its shares, the benefits are equal in economic terms: a rational share price would be based on the discounted future income stream from the bank to the owner. Therefore, the share price and the future stream of dividends would represent similar values.

In principle, the aim of the sale should be only to obtain the best price possible (given that the new owners fulfill the "fit and proper tests" and other prudential criteria). The state may have additional goals, such as promoting structural changes in the banking sector by merging banks that complement each other. If so, the "cost" (the loss of revenue by not choosing the highest sales price) should be presented in a transparent manner to facilitate a comparison to the alleged structural gains.

The state may choose to disinvest its share holdings in gradual steps or to sell the whole bank at one occasion. If the goal is profit maximization, one owner may be willing to pay a premium to gain control over the bank. On the other hand, if a single owner cannot be found, trying to sell a large bank all at once could depress share prices. If the decision has structural implications, the government might sell the whole bank to another financial institution to achieve synergies; note, however, the argument about making the "cost" clear for all to see. If political considerations are important, it may be necessary to obtain a political majority for reducing the state's holdings at faster than a gradual pace.

Irrespective of the arguments and alternatives chosen the sales process should fully conform to market principles, especially openness and access to information for all interested parties. If the state remains a large shareholder, it should not ask any favors not provided to other shareholders.

Actual Loan Loss Recoveries in the Swedish Case

The sum of all forms of state support to the banking sector, excluding guarantees that were not utilized, amounted to SKr 65 billion, or
4 percent of Swedish annual GDP. The latest forecast is that the go-

erment will recover at least SKr 48 billion of this amount. The recov­
eries will take the following forms:

- SKr 6 billion from the sale of 34.5 percent of the equity capital of
  Nordbanken. The state became the sole owner of Nordbanken in
  the crisis;
- SKr 5 billion from the redemption of some 5 percent of the equi­
  ty capital of Nordbanken. The bank used excess funds to buy
  back a part of the government’s shares in order to cancel them;
- SKr 17 billion from the sale of the remaining shares of
  Nordbanken (based on present share values quoted on the
  Stockholm stock exchange);
- SKr 5 billion from dividends on the government’s shares in
  Nordbanken;
- SKr 11 billion from the liquidation of the state-owned AMC,
  when all assets are sold; and
- SKr 4 billion already recovered from the merger of the two origi­
  nal AMCs. At the merger, the first AMC paid SKr 4 billion to the
  state to acquire the assets of the second AMC.

It should be noted that in an economic sense the above calculations
paint too rosy a picture since they do not account for the time value
of money, as measured by the financing cost of the state support.
Partly to compensate for this factor, it would not be appropriate to
count tax revenues to the state from the reborn banks as “funds
recovered.”

The recovery rate for Sweden is only illustrative and not an indi­
cation of a normal recovery ratio. Several developments contributed
to make the ratio better than estimated at the peak of the crisis. First,
the quick upturn of the Swedish economy following the depreciation
of the krona and the fall of interest rates; this led to an improved sit­
uation for most borrowers, thus reducing the amount of nonperform­
ing loans. The AMC could sell many of its industrial holdings more
quickly than expected and receive better-than-expected prices.
Second, the real estate market stabilized and turned upward, espe­
cially in attractive locations. Most of the real estate holdings of the
AMC could be sold at or above their previously assessed values.
Third, confidence in the banking system was rapidly restored, and
banks could resume their ordinary business, which even during the
crisis remained efficient and profitable. The banks also rationalized
their operations and reduced their staff, obtaining significant cost
reductions.
Important Lessons

What are the most important conclusions to be drawn from the Swedish experience with regard to minimizing the cost to the banking system and to the state budget?

- Confidence in the system must be restored rapidly. Distinct decisions must be taken early and quickly transmitted to the market, as well as abroad. Any remaining uncertainty will affect the banks in various ways, leading to increased losses in their operations.
- The solutions should not focus solely on the loan losses. In addition to recovering loan losses, large amounts may be gained or lost by restructuring the “good part” of the bank. A rapid and thorough investigation of the total situation of the bank is necessary. After that, it must be decided whether the bank has a viable future and what support is needed. The bad loans and assets must be taken care of anyway, and a higher price for large quantities of assets will typically be obtained if they are first “processed” and later sold through an AMC. Smaller quantities of assets may remain in the bank or be sold directly to another party.
- The hammock approach was found valuable for deciding on the amount of funding to the good bank and the AMC. State-supported funding should be adequate but not excessive. When choosing between different forms of state financial support, forms that enable the state to benefit from expected future increases in the value of the bank should be given prominence.
- Valuation of loans and other assets should be careful and follow strict and equal rules for all banks. Transferral of assets to an AMC should be at market prices.
- The transfer of assets to separately established AMCs proved appropriate both from an organizational and from a financial point of view.
- The AMC should have a strict profit-maximizing goal. In all its operations, it should act as a normal market participant.

This paper has focused on issues at the “micro level”; the macro aspects have not, purposely, received due attention. It should, however, be made clear that there is a close mutual interdependence between the restoration of stability in the financial sector and a sound macroeconomic development. Costly state intervention to save banks and to stabilize asset values may well be wasted if the banks are not supported by appropriate macroeconomic policy measures. The reverse is also true: problems in the financial sector will undermine overall economic stability and growth.
This paper by Stefan Ingves and Göran Lind makes a detailed presentation of how the Swedish authorities dealt with the banking crisis in the early 1990s and provides an excellent account of the issues involved and the restructuring and support strategy that was implemented by the government. The paper can usefully serve as a manual for formulating and executing a bank restructuring program. This is not to say that there is one single approach to restructuring. Judgment and flexibility are clearly important, particularly because conditions vary across countries, and information does not usually become available all at once.

Given this, I would like to highlight the "best practices" underlying the Swedish effort that contributed to a successful bank restructuring. The authors do this toward the end of their paper, and I would like to add some points as appropriate, including comparable experience in the Philippines. Then I identify aspects of the paper where further elaboration would be helpful in clarifying certain relevant issues.

Overall Strategy

On balance, the strategy used by the Swedish authorities was a comprehensive one, involving both financial and operational restructuring of affected institutions. Financial restructuring focused on improving the balance sheets of troubled banks to improve the flow of income mainly by capital infusion, provision of guarantees, and management of assets. In the case of Sweden, most of the bad assets appear to have been transferred to asset management companies that took care of their disposition. The good assets remained with the banks; these provided the sources of income that would subsequently bring affected institutions back to profitable operations.

At the same time, improvement in internal governance through operational restructuring formed the other important component of the strategy. This was pursued through such measures as changes in management and reduction in the number of staff. It is worth noting that the failure to adopt operational restructuring was a principal reason for the reemergence of financial distress in other countries in the early 1990s.
A parallel of the Swedish approach is the rehabilitation of the two largest government-owned banks in the Philippines during the second half of the 1980s. After being found insolvent, these two banks were rehabilitated by the government and their balance sheets reduced through a write-off of government deposits and other liabilities and the transfer of their nonperforming assets to the national government through the Asset Privatization Trust. The latter was established to provisionally manage and dispose of assets that had been identified for privatization or disposition. In addition, the banks got new management teams; they were prohibited from expanding their branch networks; and significant cost reduction programs were implemented. Moreover, special privileges were withdrawn and they had to compete on a more level playing field with private banks. The rehabilitation program had a successful outcome with the two banks returning to solvency and profitable operations. The bigger of these two banks was subsequently privatized.

**Main Principles**

The experience of Sweden illustrates how certain principles of restructuring were successfully put to work toward a prompt resolution of the crisis, and the authors effectively list the important lessons to be learned from the crisis. In particular, substantial merit can be found in the following:

- The authorities’ swift response to the problem helped to restore confidence in the banking system promptly. This was clearly crucial in preventing the crisis from getting bigger. The restoration of confidence was greatly helped by the support of parliament, which formulated a plan that, according to the authors, provided for “unlimited use of public funds to finance support agreements between the government and the banks.”
- The authorities gave adequate—rather than excessive—support to troubled banks. This minimized the extent of state support while maintaining as much as possible a level playing field for players in the industry, including those that did not require government financial assistance.
- Their uniform use of careful valuation of loans and other assets helped to achieve equal and fair treatment of beneficiaries. The use of experts specialized in asset valuation in different sectors proved crucial in this step of the process.
- In addition, the governing principles of the sales process of the asset management companies (AMCs) were well thought out,
with their emphasis on transparency and ready access to information by interested parties. Such principles were undoubtedly important in generating a broad political consensus for, and facilitating public acceptance of, the restructuring strategy.

The paper also discusses in some detail the advantages and disadvantages of shifting the bad assets of banks to a separate agency with explicit funding sources. Ultimately, the choice between public, private, or joint management of problem assets should depend on which sector is likely to be more efficient in handling the problem assets. This would depend on the nature, number, and size of such assets. At any rate, the paper makes a compelling case for operating an AMC on strictly commercial criteria, and the need to provide it with an incentive structure that rewards efficiency. These would support the authorities’ efforts to maximize the recovery value of loans and collateral, thus helping maximize the cost effectiveness of the government assistance.

The application of these principles proved to be effective in weathering the banking crisis in Sweden. Of course, countries should adopt policies designed to avoid the occurrence of a crisis, but when something goes wrong, and the authorities need to respond to a systemic bank failure, the principles applied in the Swedish case provide valuable lessons for countries that may find themselves in a similar situation.

**Additional Elaboration**

Having said this, there are certain aspects of the paper where further elaboration could help to clarify certain points. The first concerns the issue of moral hazard and the effects on solvent borrowers and banks. To be fair, the hammock approach adopted by the Swedish authorities indicates that government support was not extended indiscriminately. Rather the decision to extend or withhold assistance depended on the ultimate viability of the bank. Apparently, bankruptcy was resorted to in certain cases, thus helping to weed out the inefficient banks.

Nevertheless, a history of central bank intervention to shore up troubled institutions can create the perception of future bailouts, in the eyes of both lenders (the banks) and borrowers. As a result, these entities may behave differently because of this expectation, and their future risk-taking behavior can be affected. It would be interesting to know how the Swedish authorities viewed this issue, and whether the approach that was adopted, including the imposition of costs on shareholders of failed or distressed banks, provided sufficient credibility that future inefficiency would be dealt with promptly and not be condoned.
In any case of banking system failure, a question that begs to be asked, and this is my second point, is why the authorities failed to recognize the problem earlier, and why they apparently failed to establish internal measures to minimize the undue concentration of loans to a particular sector. The authors say that, in order to gain market share, banks lowered their credit standards despite their lack of adequate knowledge and procedures for proper credit assessment in a deregulated banking environment. In the Philippines, during the early part of the 1980s, severe difficulties in the banking system were caused by, aside from the significant macroeconomic problems, weaknesses in bank supervision, regulatory forbearance, and political interference in bank lending. Such difficulties had to be addressed by a comprehensive rehabilitation program for the country’s two largest government-owned banks.

Evidently, there were weaknesses in the prudential regulation and supervision of Swedish banks, since the problem of loan losses arising largely from the collapsed property market seems to have gone unnoticed until the losses had become substantial. There do not appear to have been any early warning indicators, and the authorities apparently were unable to control the volatility in the collateral asset portfolio (for example, by requiring loan loss provisions or recapitalization by existing equity holders).

Admittedly, imposing restrictions on real property lending to avoid overexposure has to be balanced against the possibility that such action may be interpreted as an official signal that the banks are carrying excessive risk and may aggravate the problem. This emphasizes the importance of taking action when the potential difficulty is just beginning to develop. It would be interesting to know what the Swedish authorities were aware of prior to the development of the crisis.

The third point concerns the measures that were taken to avoid the recurrence of such problems in the future. The costs of delayed adjustments to the decline in asset prices could have been prevented, or at least minimized, by frequent surveillance of collateral assets and up-to-date market-based measurement of their values. Up-to-date market-based valuation and frequent inspection are clearly important means of minimizing possible losses. These reforms can help the authorities spot problems in bank management and bank portfolios well before insolvency occurs and compel banks to take timely corrective action. In this regard, it is important to assess both lending to a sector like real estate as well as lending for other purposes that is collateralized by real estate.

In drawing policy lessons from the crisis, the authors could have devoted some discussion to the need to correct deficiencies in bank
regulation and supervision. It would have been instructive to learn whether corrective measures were instituted to foster strong internal governance by the monetary and supervisory authorities, as these would serve as the first line of defense against banking problems in the future.

A fourth point is that the paper deliberately sets aside the monetary and fiscal implications of the bank restructuring. Considering the importance of this aspect of the program, it would have been useful to address it. The recovery rate for government resources spent on the rescue effort is a creditable 74 percent (SKr 48 billion against SKr 65 billion worth of state support, excluding guarantees). While the paper recognizes that the opportunity cost of state support was not considered, it would be instructive to include some measure of this cost.

The paper notes that the financing of the rescue package came from state (taxpayers') funds. It would be interesting to know the fiscal implications of the government's involvement. If the rescue package was financed through the flotation of government securities, it would have been interesting to examine if it had an impact on interest rates. If the rescue package was financed out of existing government resources, it would have been interesting to examine whether it crowded out other government expenditures.

A final point is that the Swedish authorities' success in "picking winners" through the hammock approach—by distinguishing banks that were inherently viable from those that were inefficient—was facilitated by their ability to gather and analyze information about the banks' future financial prospects. Furthermore, their intervention was made easier by the fact that the crisis was limited in scope and that the collateral assets had easily ascertainable values, at least relative to other assets. In other countries, the ability of the authorities to obtain the enormous amount of information necessary to make accurate valuations, as well as to assess the data, may be severely restricted. In addition, countries vary a great deal in their legal frameworks, administrative infrastructures, and political constraints.
Mr. Ingves first responded to Mr. Tetangco's formal comments on the moral hazard of Sweden's restructurings. Swedish bankers had not made bad loans on purpose; their loans reflected ignorance, rather than moral hazard. Nonetheless, there was a degree of moral hazard and the government had to be tough. The Skandinavista Enskilda Bank (S-E Banken), for example, had found the government's conditions too tough and, instead, had made an issue on the stock exchange so as to raise the necessary money. Another bank, which was not totally lost, had guarantees put in place by the government that included convertible bonds which, if the bank's capital ratio fell below a certain percentage, could be converted into shares owned by the government with voting rights ten times the voting rights of normal shares. Hence the bank had an extreme incentive to satisfy its capital requirements; to not do so would have effectively resulted in control being surrendered to the government. In general, the government was willing to talk to any bank but it, not the bank, would perform the asset valuation. Alternatively, the bank could have itself valued by the stock market but, again, it would not be the bank that valued its assets.

In explaining how things went so wrong in Sweden, Mr. Ingves said that the regulatory system had been hospitalized by interest rate ceilings, loan ceilings, foreign exchange controls and placement ratios; there was a whole battery of monetary policy and credit distribution instruments. This meant that the supervisory authorities did not really understand how banks operated in a deregulated market. Nor were the banks adequately prepared for the transition to a deregulated stage, that is, to credit assessment policies and risk control systems. Thus, the corrective measures taken by the Swedish authorities included ensuring that banks put in place such systems.

Mr. Ingves said that the bank restructurings did not increase total liquidity, as all the money came from the National Debt Office, which issued bonds to finance the exercise. It was very hard to tell whether this bond financing caused any crowding out because the overall budget deficit in Sweden at the time was 12-13 percent of GDP; the bond financing of the restructuring involved a far smaller amount than this.

In responding to questions from the floor, Mr. Ingves said it had been possible to start selling the "good bank" (Nordbanken) because all its bad assets were shifted to the asset management company prior to the sale. This shift created a viable bank that was listed on the stock exchange with a view to further privatization—now taking place.
Mr. Ingves stressed that it would have been impossible to privatize the bank without having shifted out the bad assets.

On the question of litigation, Mr. Ingves said that the successful operation of the asset management company (AMC)—sometimes called the Bad Bank—required the AMC to be tough. Unlike a normal bank, which wanted an ongoing business relationship with each customer, the AMC's goal was to seize any collateral as quickly as possible, and to do with it whatever was necessary to recover costs. The AMC did not hesitate to go to court or to take legal measures it thought necessary to achieve its objectives, regardless of what the counterparties might think. There had been newspaper stories about the AMC treating people badly but, at the end of the day, the AMC has lost very few cases in court. Those dealing with the AMC tended to complain to the press of suffering, but the whole idea of the AMC was that it should treat its counterparties professionally aiming at maximum recovery and, generally speaking, given Sweden's legal system, this has not caused a lot of difficulties.
Many of the papers in this volume have identified those factors that contribute to a lack of soundness in financial systems, as well as the actions that can be taken to strengthen these systems. This paper will build on that foundation by putting forward three propositions: first, with the possible exception of massive macroeconomic instability, no one single factor contributes more to institutional problems than the lack of effective governance; second, although "governance" is a broad concept referring to external and internal forces, its core is "ownership"—the concept and identity of an owner, the relationship of the owner to an institution, and the mechanisms through which an owner affects an institution's behavior; and third, improvements in governance should precede any state-funded recapitalization or any regulatory forbearance for an institution whose condition could place depositors at risk.

This paper focuses on the difficulties of translating and applying governance concepts where there is no strong tradition of private ownership. Specifically, how can a country establish effective internal governance of banks that are or were until recently state owned? As Manuel Guitián's comments make clear (see Chapter 3), however, the concepts of governance are key not only in developing and transitional economies but also in the most highly developed markets.

Banking authorities have been struggling for years to improve the quality of financial institutions in developing and transitional economies. Bank restructuring projects have drawn heavily on foreign technical assistance and have often tasked the advisors with delivering improved credit analysis skills. Unfortunately, newly trained cred-
it analysts soon realize that their local environments do not provide
the tools necessary to recover debts and their managers and owners do
not necessarily endorse the philosophy of making loans only to cred-
itableworthy borrowers. Finally, the analysts quickly discover that their
careers are not likely to advance if they continue to recommend cred-
it actions that are inconsistent with their owners' preferences. A basic
problem with these restructuring efforts is that project designers and
technical advisors act pursuant to assumptions based on conditions in
their home countries. Increasingly, it has become obvious that these
assumptions are out of line with reality in transitional environments.
Marko Škreb has pointed out the danger inherent in assuming the
adequacy or accuracy of data available to analyze a bank's condition
or in assuming that the same standards can be applied in widely vary-
ing circumstances. Carl-Johan Lindgren drew further attention to the
quality of data in his discussion on keeping banking systems sound
(see Chapter 12).

This discussion therefore begins by identifying a number of close-
ly interwoven "risky assumptions" that impede efforts to create sound
systems or institutions and explores how attitudes toward evaluating
risk in institutions and relying on governance to assure system sound-
ness have changed. Next, the paper focuses on governance—first
broadly, then more narrowly in the sense of "ownership gover-
nance"—and then concludes by addressing techniques to create
governance.

Among the most serious "risky assumptions" that have impeded
restructuring efforts are the following:

- **Legal infrastructure exists.** Often in transitional economies, the
  laws and institutions do not exist to identify the owner of specific
  assets, enforce contractual obligations, perfect collateral, and
  convert assets into cash through foreclosure or bankruptcy to
  repay unsatisfied debts.

- **Agreement exists on the role of the market and the desirability of
debt recovery.** Beyond an absence of the legal tools for debt
  recovery, there is often a continuing controversy on whether the
  social good is served best by debt recovery, debt renewal, or debt
  forgiveness. There has been an extreme reluctance in many
  economies to accept the short-term pain associated with taking
  assets away from inefficient users. As a result, these economies
  have not yet been able to move toward the longer-term benefits
  associated with placing these assets in the hands of new (perhaps
  more efficient) investors who are able to use the assets to gener-
  ate cash with which to repay loans, engage additional employees,
  and provide investors with a return on their capital.
In the absence of agreement on the benefits of reducing “bad loans,” bank managers still function under incentives that encourage rolling over rather than collecting bad debts.

An understanding of “ownership” exists complete with (a) clear distinctions between public and private ownership and (b) government and owners’ attitudes consistent with sound institutional development. Although it is easy to endorse the benefits associated with an increasingly market-oriented economy, it is not as easy to accept the loss of control that this change in orientation and ownership implies to public sector officials. In many transitional environments, public sector officials are sincerely struggling with the trade-offs and risks inherent in letting the market decide. Similarly, they struggle to understand the extent to which regulation is a precondition for sound market development and at what point the regulation becomes so intrusive that the market is unable to develop.

High margins are explained by a lack of competition. Clearly a lack of competition can lead to monopolistic profits. The existence of wide margins, however, is not always explained by the level of competition. Economists have been too ready to conclude that margins will come down if competition is introduced. High margins, however, may simply reflect the cost of doing business in an environment in which systemic risk is high, debt recovery is expensive, and prudential regulations are absent or ignored. In such an environment, a more liberal entry policy is likely to have minimal effect on margins or to exacerbate the potential for bank failures.

Unsound banks will precipitate a near-term crisis. In a market economy, depositors, creditors, even investors will deny an unsound bank the resources it needs to survive. In transitional economies, the linkage is often not as clear. Many argue that, in a transitional economy, an insolvent state-owned bank can exist for an extended period of time without “failing” and without creating a run on the bank. To say, however, that no direct and near-term linkage exists between insolvency and a crisis is not necessarily good news. A near-term crisis may not be precipitated, but the costs (in terms of lost economic development and ultimate claims on fiscal resources) continue to grow as long as a bank’s insolvency is not recognized and as long as fundamental defects are not eliminated.

Audited statements in accordance with international standards provide an accurate reflection of reality. As Lindgren’s paper shows (see Chapter 12), it is difficult to capture a true picture of a bank in its bal-
Governance Issues and Banking System Soundness

Governance Issues and Banking System Soundness

ance sheet. Even in the most developed markets with good disclosure standards and well-trained accountants and auditors, financial statements often fail to reflect financial reality—just as English words and correct grammar may not accurately reflect the writer’s thoughts. Similarly, numerous enterprise and bank failures, following publication of unqualified financial statements demonstrate that such statements may not reflect the entity’s actual financial condition.

Risk-based capital adequacy of 8 percent implies solvency and viability. Although clear and transparent rules are always preferable, it may be that banking authorities have been too ready to endorse 8 percent as an adequate capital level. First, 8 percent may be achieved based on flawed accounting and provisioning methodologies; second, the static concept of capital fails to reflect the dynamic flows that determine an institution’s viability; and finally, 8 percent may be too low to provide a realistic cushion in changing market conditions. It is interesting to note that in the United States the average capital adequacy for banks with CAMEL ratings\(^1\) of 1–3 is between 16 and 20 percent. This implies that in a fairly stable market with relatively good disclosure private sector owners (concerned with minimizing their investments and maximizing their returns) voluntarily “require” a higher capital adequacy than that suggested by the BIS standard.

Management failure and deficient technical skills “explain” credit losses. Poor management will produce poor credit decisions. In transitional economies, however, poor credit decisions are not always explained by poor management or by lack of credit skills. When incentive systems and owners’ expectations preclude management decisions based on bank profitability and the creditworthiness of borrowers, then management cannot be held accountable for credit quality or capital levels. Many bank managers still operate in environments where they are theoretically given authority and expected to make sound credit decisions; in reality, they are required to implement policy decisions dictated openly or privately by the bank owners. If owners have not confirmed that their goals are profitability, efficient resource allocation, credit quality, and debt recovery, then improving credit skills will not result in improved bank performance.

The “foundation” for a sound bank (or banking system) is the legal and regulatory infrastructure. The “first floor” is the role of (and governance imposed by) the owner. The “second floor” comprises man-

\(^1\)A CAMEL rating measures the relative soundness of a bank on a scale of 1 to 5; 1 being the strongest rating. The term stands for capital, asset, management, earnings, and liquidity.
agement and credit skills. To start construction (or bank restructuring) on the second floor can lead to structural problems and waste of both time and money. This principle is only now being recognized in the evolving attitudes of bankers in both the developed and developing worlds.

**Evolving Attitudes**

The countries represented at this seminar form a continuum in financial sector and regulatory attitudes. Transitional economies, for their part, have shifted from a reliance on policy lending to an increased recognition that market forces may more effectively promote economic development. With this shift, there was an organizational migration from monobanking to a dual banking system, separating central and commercial bank functions. These organizational changes, in turn, created a need for prudential regulation to govern the activities of the newly created commercial banks. In the early stages of this transition, and in the absence of experienced financial sector professionals, it was appropriate to introduce relatively rigid rules—for example, a loan past due by more than ninety days is classified as “substandard” and must be provisioned at a 20 percent level. Many of the transitional economies today stand at a critical threshold trying to move from rigid rules, mechanistically applied, to a philosophy of increased reliance on sound judgment in the application of prudential regulation.

Frederick Musch of the Bank for International Settlements emphasized the need to develop judgment and enumerated the risks associated with relying too heavily on black and white rules to be applied in all circumstances (see Chapter 7). Essentially the philosophy of increased reliance on sound judgment implies far greater use of governance systems internal to commercial banks. Regulators must not allow bankers to view risk-management as placing loans in the “correct” regulatory pigeon hole and then multiplying by the correct provisioning factor. Rather it is the banker’s job to prove to the regulator (1) that the bank has a sound governance structure, (2) that the bank has created and implemented a classification system and provisioning methodology that results in an accurate statement of profits and capital; and (3) that the bank’s resulting capital levels provide sufficient cushion for market volatility under reasonable economic scenarios.

Given the increased need to rely on the internal governance systems of banks, it is appropriate to turn our attention to the meaning of governance and ways in which it can be created and improved. “Governance” broadly defined includes the discipline imposed and
Table 1. Sources of Governance

<table>
<thead>
<tr>
<th>Key Sources of Governance</th>
<th>Primary Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owners</td>
<td>Dividend stream, stock appreciation, and limited downsides with infinite upside.</td>
</tr>
<tr>
<td>Capital markets</td>
<td>Competition for equity funds.</td>
</tr>
<tr>
<td>Monetary authorities</td>
<td>Price stability.</td>
</tr>
<tr>
<td>Prudential regulators</td>
<td>Safety and soundness of the financial system.</td>
</tr>
<tr>
<td>Debt providers (including depositors)</td>
<td>Rates, convenience, and safety.</td>
</tr>
<tr>
<td>Legal system</td>
<td>Adherence to legal standards, sanctions for fraud.</td>
</tr>
<tr>
<td>Business practices</td>
<td>Ethical standards.</td>
</tr>
<tr>
<td>Public opinion</td>
<td>Corporate citizenship and implied civic responsibilities.</td>
</tr>
<tr>
<td>Employees</td>
<td>Compensation and security.</td>
</tr>
<tr>
<td>Competition</td>
<td>Good: narrow margins, high efficiency; bad: lax lending terms, conditions, and underwriting criteria.</td>
</tr>
</tbody>
</table>

incentives provided by a very broad “complex of institutions, laws and regulations, customs and practices that control and influence bank behavior.”

Governance is imposed internally and externally by various parties with different perspectives, each of whom may exert pressure to move an institution in a slightly different direction. Table 1 provides a broad (but not all-inclusive list) of key sources of governance. Although the motivations of the various players are different, they can and should be mutually supportive. If common values are shared within a culture, governance can be far more effective than if the values and goals are so divergent that managers are paralyzed by requirements to move in mutually inconsistent directions.

Ownership as the Cornerstone

Although governance comes from both external and internal sources, ownership (and the resulting system of internal governance) is the cornerstone of a financial institution. The importance of ownership and internal governance cannot be overemphasized. A good bank can exist even under an inadequate regulator; a good bank cannot exist under a bad system of ownership governance. Regulators are constantly trying to chase the horse after it has escaped from the barn.

but it is the owner who really controls the barn and holds the key to its door. Musch underscores this concept well when he writes that "there is something very wrong in a market in which the supervisors know more than the bankers" (see Chapter 7). It is not the supervisor's job to make lending decisions or to impose target markets or strategies on financial institutions. It is their job to hold banks responsible for the banks' decisions, to force the banks to understand and explain their risk profile, to assure that they have themselves instituted good governance and risk management systems, and ultimately to impose if necessary on banks, managers, and owners liability for failure to adhere to prudent standards of operation.

It is not the purpose of this volume or this paper to debate the relative merits of public versus private ownership. For those ideologically committed to private ownership, however, I would argue (a) that privatization is a means to an end and not an end in and of itself and (b) that there are significant prerequisites to privatization (such as accounting and disclosure standards, supervision and regulation, and other legislative infrastructure).

On the other hand, for those still tempted to allow state-owned banks to allocate resources rather than private owners and market forces, there are numerous problems associated with state ownership. Indeed, value has been lost by not moving more rapidly to privatize banks, and resources have been wasted trying to recapitalize and restructure banks as an intended prelude to privatization. Furthermore, conflicts of interest for the state as owner are difficult if not impossible to avoid: when making decisions, should the state owner act as owner, regulator, depositor, largest borrower, monetary authority, tax authority, dispute resolver, employer to insolvent and inviable bank borrowers, or election candidate? Beyond such conflicts of interest, a state-owned bank is also often plagued by a culture and decision process that precludes timely responses to rapidly changing market forces. Also, the skill sets and compensation mechanisms in state-owned banks do not encourage good management, the goal of which is to maximize the return on invested funds. Finally, partly because of the state's conflicting goals as owner, the aims (and the incentives) for state-owned banks are often not clear—for example, is the goal to support the most creditworthy borrowers or to sustain existing employment levels?

To sum up the controversy between state and private ownership, private ownership (that seeks commercial profits) lends itself more easily to good governance than does state ownership. From a regulatory perspective, private ownership also offers a separate potential source of future capital without tapping fiscal resources. By contrast,
state ownership contains significant risks. The central issue, however, is not necessarily whether a bank is owned by the state or by private shareholders, but is the ownership transparent and accountable, what are the owner’s goals and have they been explicitly stated, how do the owners exercise influence, what is the quality of governance, and how can the governance be improved?

Whether state or privately owned, good governance starts with the owner, then extends down through the governance body, the managers, and the employees. Even if the owner is the state, it is necessary to make the owner “transparent and accountable.” Although “ownership by the people” may be an ideologically attractive concept, it is difficult for a bank manager to know who the “people” are, who the “state” is, and therefore who the “boss” is? Is it a specific minister who is requesting preferences for a given sector? Is it the minister of trade when he or she asks for more favorable import and export terms? Is it the prime minister who wants to intervene on behalf of a large employer in his or her home district? Such issues are better debated in parliament than in credit departments. To ensure transparency, it is necessary to vest the state’s ownership in a specific entity: an asset management company, the department of banking within the Ministry of Finance, or some other.

The owner has certain rights—the right to choose which stock to own, to select members of a governance body, to decide strategic issues (merger, for example), to confirm the external auditor, and to receive any residual value in liquidation. Beyond its rights, an owner can also hope for dividends and stock appreciation. Whether state or privately owned, however, if an institution is to collect deposits from the public, the owner cannot be given preferential access to bank products (such as loans) or to preferential terms (rates) on bank products. If the state wishes to finance public works and long-term development goals, appropriate funding mechanisms are available—issuing bonds and collecting taxes. Governments are still tempted, however, to bypass the fiscal budgeting process and market-oriented credit discipline by using depositors funds to finance public needs. To do so confuses fiscal processes and prudent market-oriented commercial banking.

3Throughout this paper, the term “governance body” and “board” are used interchangeably. Neither term is meant to imply a preference for a particular legal form, such as use of a “Board of Directors” pursuant to the U.S. practice or use of a “Supervisory Board” which is more common in Germany and a number of other countries. Whichever model is followed, it is important to recognize which entity is the primary “governance body” and to articulate quite clearly its responsibilities.
The separation of ownership and management, which has been found to be most effective in large corporations, implies the imposition of a “governance body” between the owner and the management. Such a body has long been recognized as critical for economic entities when the ownership is widely disbursed. In state-owned enterprises and banks, however, the value and role of the governance body have largely been overlooked. Not only is it the mechanism through which governance and control can be brought to a bank, it is often the only effective way that bank managers can be buffered from political interference in lending decisions.

In transitional and developing economies and in state-owned banks, a tradition of well-articulated rules to define the responsibilities, structure, composition, and incentives facing directors often does not exist. Improving this is the first step in creating governance.

**Responsibilities**

The basic responsibilities of the board are three-fold. First, they should supervise themselves; in other words, they must clarify their own governance responsibilities, ensure that as a group they have the necessary skills required to perform the board’s governance role, and ensure that as a group and individually they will not be handicapped by a conflict between their fiduciary role of protecting the bank’s best interest and their own personal interests. Second, the board must supervise management—set the agenda and make clear that management reports to the board and not the reverse; establish performance criteria; and select, retain, compensate, and dismiss senior management based on criteria established and monitored by the board. The board is also often given the responsibility of selecting its own chair from among the elected directors. Finally, and most important, the board must ensure the bank’s basic financial soundness by approving plans, policies, and procedures and by monitoring compliance with laws, regulations, and the bank’s own policies and procedures.

The plans, policies, and procedures for which the board has responsibility can be grouped into four categories: (1) the “basic building blocks” (strategy, decision processes, structure, distribution systems, budgeting and planning systems); (2) the “back office” (operations strategy, information technology, and management information systems); (3) “safeguarding assets and liabilities” (credit, treasury, and audit); and (4) human resource development (recruitment, retention, rotation, performance management, compensation, and training).
Structure

To perform the above responsibilities, boards often have different structures. Large and successful banks' boards however, often have subcommittees, which can include: (1) an executive committee; (2) a loan review (or risk management) committee responsible for reviewing and approving credit policies and procedures, loan classification and monitoring systems, provisioning methodologies, underwriting criteria, loans recently approved, loans past due, loans restructured, accounts overdrawn, documentation exceptions, loans to insiders, loan concentrations, classified loans, and action plans for classified borrowers; (3) an audit committee responsible for supervising the internal auditor, approving the terms of reference and engagement letter under which the external auditor will perform, and receiving the audit report and management letter; (4) an asset/liability committee; and (5) a compensation committee.

Composition

To provide an effective link between owners and managers, a board will often include directors from outside and inside the bank. Ideally, the board's membership should have business, financial, and legal skills. The members themselves must be leaders, managers, and strategic thinkers with inquisitive and analytical minds. Their backgrounds should not be limited to academic preparation (as students, professors, and researchers) but should include past practical experience as managers of enterprises and banks. Basically, the board must have sufficient practical experience to know what questions to ask of management and to know when the answers are responsive.

Incentives

Board membership is not simply a reward for or reflection of community status and prestige. It is not a “carrot” for having loyally implemented government policies, a reward or compensation for a past job well done. Rather, the carrots set before valuable directors should be a combination of short- and longer-term compensation and psychological satisfaction and civic recognition for contributing to the efficient allocation of resources, which should result in better communities and stronger economic growth. One cannot, however, look at board incentives focusing only on the “carrots”—the “sticks” are equally important. Directors should be held accountable for their
activities and should be held liable for their neglect, self-enrichment, malfeasance, and failure to assure that an institution follows safe and sound lending practices.

Creating Governance

Creating governance is a matter of agreeing on goals and then providing the necessary incentives and monitoring systems to ensure that the parties strive to achieve those goals. One typical goal is to be an efficient financial institution: one that enhances profitability, mobilizes deposits, allocates credit in a way that strengthens asset quality, ensures prompt and full repayment, and preserves and builds its own capital base. Yet, governmental authorities may not always rank “efficiency” in the financial sector as a high priority; differing development philosophies may make other goals more appropriate. This can be a difficult conflict to resolve—one cannot have one’s cake and eat it too. In fact, by attempting to juggle mutually incompatible goals, neither goal may be achieved.

One of the greatest problems observed in bank restructuring is that the various players do not agree on the goals each is to pursue. In the end, the bank may need to serve multiple bosses and achieve mutually incompatible goals: maximize recoveries and improve loan quality; provide financing for large (often loss-making) state-owned companies on which the government depends for political support; maintain employment (in the bank and in the borrowing enterprises) even when the cash-flow of the borrowers cannot sustain the employment; function as the “owner” in the restructuring of enterprises for long-term viability.

If the goals are agreed upon and are explicit and consistent, then incentives can be structured and performance can be monitored. Many problem banks, however, are given the impossible task of achieving incompatible goals. The managers are then blamed for failure, when, in fact, the impossible tasks and incompatible goals made failure inevitable.

The first step in creating governance is to analyze the players and define explicitly their respective roles. How can the government contribute to the development of good governance? What should the government do and what should the market do? Wang Jun (see Chapter 13) posed the problem that if the market is well developed then the government can take a less intrusive role, but if the market is not well developed, then it may be necessary to place continued reliance on the government. Essentially, this is a variation on the age-old problem of
which comes first, the chicken or the egg. This is the core problem for the government. How can it contribute to, and not impede, market development and ownership governance? It would be nice to find one solution that fits all countries, but it is unlikely. Each country must struggle with this dilemma and, in many ways, create its own unique solutions. There are, however, certain core concepts. The government should lead infrastructure reform, catalyze clarification of roles, require judgment and accountability; and shift to “arm’s-length” relationships with the banks. Perhaps most important, the government must recognize that its intervention is transitional. The government needs to plan for how its intervention will diminish over time as it successfully encourages the growth of the market.

Once the government is prepared to operate at arm’s length and to exercise legitimate ownership governance aimed at preserving and enhancing the value of its invested capital, then a number of techniques are available for improving internal governance: using strategic investors, management contracts, twinning arrangements, training, and “governance contracts.” With each of these techniques, there is a wealth of opportunities for accelerating institutional development—for example, by allowing twinning partners or others to earn equity participation by virtue of their own success in helping an institution achieve quantifiable goals. Training too often connotes sessions for tellers and credit analysts. In fact, training dollars can be most effectively leveraged by focusing them on the owners and on members of the governance body. By starting at the top, new attitudes and techniques can be introduced and passed down through an organization.

**Governance Contracts**

“Governance contracts” are a way to ensure that banks are given “doable,” and not impossible, goals to achieve. These contracts can be extremely difficult to draft but once agreed upon they can provide an effective management roadmap. In this way, inconsistent goals are not targeted, and all players agree to actions that will foster an efficient financial system and an environment in which strong bank management can succeed.

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What is a governance contract? Essentially, it is a formal document that details (1) the respective roles of the government, regulators, owners, directors, and managers; (2) the purpose for which a bank exists and the goals it will pursue; (3) a system of governance and accountability that clarifies how and by whom bank performance will be monitored; (4) quantitative and time-bound targets by which the bank and its management will be measured; and (5) consequences of failure to achieve targets or to comply with established standards.

The concept of a governance contract is extremely flexible as are the “contracts” themselves. A regulator can use contract law to agree upon and then enforce actions that might not be fully envisioned in a regulatory framework. An owner and a bank may use the document to agree on conditions for the infusion of additional equity. The most important point is that it is not the document itself that is of primary importance but rather the process by which it is drafted. There is no one template that can be distributed and used in different institutions and different countries. Rather there is a set of issues that are relevant and that the owners, regulators, and banks must discuss and on which they must agree. They must decide on what is important and what are the primary goals. In the drafting process, the various parties flesh out their assumptions and responsibilities to ensure agreement, thereby avoiding costly and time-consuming misunderstandings. These discussions are invaluable in setting the framework for substantive dialogue among the parties to carry out complex reforms.

It is often argued that this tool is not effective in transitional economies since it is difficult (perhaps impossible) to reach agreement on the basic issues. Even if agreement cannot be reached, however, the unsuccessful attempt to negotiate a document can provide tremendous value. Discussions allow the parties to determine if inconsistent goals are likely to impair the value of newly invested capital or diminish the benefits of funding institutional development programs. Another potential argument against such contracts is that they may not fully be enforceable given the legal infrastructure in transitional economies. Enforceability, however, is less relevant than the fact that the parties have debated the issues and have reached common accords.

In drafting a governance contract, there are a number of threshold issues—the resolution of which will then impact dozens of individual paragraphs. For example, what is the nature of the document, is it “voluntarily” negotiated between multiple parties or unilaterally imposed by a supervising agency, does it provide for recapitalization, who are the parties, and how can the inherent conflicts of interest in the state’s various roles be eliminated or mitigated? The contract itself
can take various forms and impose constraints of varying severity. Such contracts even take different names (each implying a somewhat different focus or different level of severity): a conditional license agreement, a commitment letter, a memorandum of understanding, a formal regulatory agreement, a cease and desist order, a rehabilitation regime, and a recapitalization contract.

Although there is no boilerplate contract that can be adopted without major adjustments in light of a country’s or institution’s unique circumstances, several elements are essential to a well-drafted contract: a recitation of the circumstances motivating the document; the purpose for which the document is prepared; the “consideration” that each party is receiving for the obligations it is assuming; the duties of each party (including the state owner, the members of the board, and so on); qualitative and quantitative goals; restrictions and prohibitions imposed, and on whom; reporting requirements; potential sanctions to be imposed, and on whom; and the process and responsibilities for monitoring and enforcement.

**Conclusion**

In many transitional economies, the expression “bank supervision” was virtually unknown five to ten years ago. Although much progress has been made in recent years in establishing basic bank supervision, these countries are still at a very rudimentary stage in understanding “bank governance.” Eddie George’s analysis of the continuing “special role” of banks (see Chapter 11) implies a greater need for effective governance in banks than in other enterprises. The challenge for a regulator (especially of a state-owned institution) is how to distinguish “governance” from “micro-management” and how to ensure effective governance. Hopefully, this volume and this paper will contribute to an increased understanding both of the importance of governance and of specific techniques to create it.
In most countries, banks are the most important financial institutions for intermediating between savers and borrowers, executing monetary policy, and providing payment services. At the same time, the configuration of their portfolios makes them especially vulnerable to illiquidity and insolvency. In particular, they are highly leveraged and maintain liquid assets that are intended principally to be sufficient to meet withdrawals in normal times.

Banks' liabilities are composed of short-term, par-valued instruments that often can be called on demand. Moreover, their loans tend to be longer-term and, although they also are par-valued, they are opaque and so have little or no secondary market; moreover, loans are not always repaid. Banks also make investments, for example, in government securities, but these can also carry credit risk. While such very short-term instruments provide liquidity, the prices of longer-term securities can be highly volatile. Thus, banks are subject, in particular, to credit, market, and interest rate risks that explain their exposure to illiquidity and insolvency. Because of their sequential-servicing (first-come-first-served) practices, bank customers are likely to run if they doubt their bank's ability to repay on demand.

There is concern that the demise of one bank, if handled poorly, can spill over to others creating negative externalities and causing a more general problem. For these reasons, many governments consider interceding in the functioning of the free markets to provide a safety net for banks that includes a lender of last resort and a system of deposit protection in addition to a system of bank regulation and supervision.
The objective of this intervention is primarily to promote financial stability and to develop a banking sector that is capable of financing economic growth on a sustainable basis. However, both the lender of last resort and the system of deposit protection have other goals that are particular to them. While each can be beneficial if well configured, they are not without drawbacks. In particular, if poorly designed, they can disrupt the economy's incentive structure and so weaken, rather than strengthen, the banking system in the longer term. This paper examines best practices for the deposit protection and violations of them.

The System of Deposit Protection

Countries often have several objectives when they establish a system of deposit insurance. Some of these objectives are achievable; others are not. One of the most common, but regrettably unrealistic, goals is to avoid a potential crisis or resolve an existing one. The incompatibility arises because doing so will, most probably, require a full guarantee, which conflicts with the incentives needed to keep the banking system sound in the long run.¹

Goals for the Insurance System

An achievable goal is the protection of small deposits, which makes sense, because it is not cost-effective for small depositors to monitor their respective bank's condition. Deposit protection will reduce the household sector's urge to withdraw funds when banking problems occur and also help to protect the retail payments system. By guaranteeing small transactions and savings balances, the deposit protection system will reduce (but not eliminate) the impact of a recession on the financial system. Protecting deposits will also help small and newly established banks compete with larger and already well-established institutions that are the beneficiaries of an implicit "too-big-to-fail" guarantee. Thus, it will counteract tendencies toward heavy concentration in the banking industry and make the banking system more open to competition through the possibility of entry by new banks.²

¹Garcia (1996) discusses the trade-off between short-term assurances and long-term stability and issues relating to deposit insurance in greater depth.
²When entry is feasible, banking is "contestable" in the parlance of microeconomics.
While many developing countries and even industrial countries lack laws or regulations for resolving insolvent banks, the initiation of deposit protection not only makes it essential to have such instruments in place, but it also offers an opportunity to establish them and the other needed elements of bank legislation, regulation and supervision. Further, a formal system of deposit protection that offers limited coverage can reduce government outlays when political considerations compel it to protect the depositors of failed banks. When citizens believe that they have an implicit guarantee, governments often feel compelled to cover a much more substantial proportion of failed bank deposits. Deposit insurance can not only reduce the total cost of covering depositors but also get banks to contribute toward meeting this cost. In addition, deposit protection can legitimately promote economic growth to some extent by encouraging savings and allowing its efficient intermediation. However, deposit protection is also sometimes used, inadvisably, to subsidize preferred industries by providing underpriced guarantees to chosen industries, such as housing in the United States until recently, or agriculture. (It is preferable to undertake any attempt at subsidization through the budget.)

**Tools of Deposit Insurance**

Protecting deposits is best accomplished by an independent agency that is free from political interference. The deposit insurer may be a separate department of the central bank, which may also be the supervisory agency, especially in small countries with limited financial expertise. Elsewhere, it may constitute a separate agency. The deposit insurance system needs to be well funded. Sometimes the government shares the initial cost of capitalizing the fund with the banking system. Thereafter, ongoing resources can be obtained by having banks contribute to a fund that accumulates to a target level or by imposing a levy on banks as the need arises. A deposit insurance system should aim to have sufficient financial resources to cope with the normal run of bank failures and even to deal with most periods of multiple failures.

However, a workable system cannot be expected to handle the costs of a systemic crisis involving pervasive failures. In such a situation, the government will need to provide financial assistance. Such support is appropriate when widespread failures are the result of errors in macroeconomic policy or natural or political disasters of various sorts, because the private sector cannot adequately protect itself against such events.
Pitfalls of a Poorly Designed Insurance System

There are numerous pitfalls to a poorly designed deposit protection system, but moral hazard and adverse selection can create particular problems if a system is not "incentive compatible." Deposit insurance is unlike most other forms (life, health, property, and casualty) of insurance in several respects. "Regular insurance" involves just two parties—the guarantor and the entity protected. There are, however, three parties to a deposit insurance contract—the guarantor, the depositor, and his bank. Both of the latter benefit from the guarantee because the (small) depositor's accounts are protected, while the bank receives a credit enhancement that enables it to raise funds at a lower rate, and shields it from widespread withdrawals by retail depositors. Further, while regular insurance usually protects against the adverse effects of independent events, particularly "acts of God," bank failures are often not independent events but occur in waves and frequently result from mistakes made by one of the beneficiaries; that is, the bank itself.

Many different groups are affected, directly or indirectly, by the deposit protection contract and they may become subject to moral hazard. The most evident danger is that the protection extended to depositors will make them less careful initially in the selection of their bank and later will deter them from moving their funds to a safer haven. Furthermore, bank owners and managers, knowing that runs are unlikely, will take on additional risk in their asset portfolios while, at the same time, reducing the amount of capital and liquid reserves they hold to enable them to weather shocks. Further, the reduced fear of runs enables other entities that are not formally part of the insurance contract to change their behavior, sometimes in regrettable ways. For example, regulators may be reluctant to require unsound banks to take remedial action because there is no threat of market discipline to force the regulators to act. And the guarantee may provide "cover" for politicians to enable them to demand such forbearance.

Adverse selection can occur when a voluntary system of deposit protection charges premiums that are not adjusted for the risk that the bank places on the guarantee fund. In this situation the strongest banks are likely to remain outside the system or to withdraw from it if they are already members. When strong banks withdraw from a deposit insurance system, the premiums charged to remaining members have to be raised to cover the costs of paying the depositors of failed banks. The increase may induce the next strata of stronger banks to withdraw until only the weakest banks remain in the system. Such a system is unlikely to remain solvent. In short, a poorly designed insurance system can cause a deterioration in the condition of the banking system.
Best Practices

Insights from modern finance theory regarding the importance of the incentive structure for sound banking, together with experience gained by the IMF staff during the years, suggest certain elements of best practices for the creation of an incentive-compatible system of deposit protection. They are summarized in Table 1.

Best Practices in Normal Times

First, the system needs to be clearly defined in law and regulation to reduce moral hazard. With transparency, all members of society know the rules under which they are operating; otherwise they cannot protect their interests. Such transparency is reinforced when the authorities move to discipline problem banks promptly to restore them to health. If deterioration continues despite remedial actions, the authorities need to close troubled banks expeditiously when (or preferably just before) they become insolvent. Prompt action also reduces the costs of resolving failed banks that gamble for redemption if they are allowed to continue in business. The supervisor needs good information on bank condition to take appropriate action. Nonproprietary information should be released to the public to support market discipline.

To reduce the problem of adverse selection, ideally a deposit protection system should charge premiums that adequately reflect the risk that each bank places on the insurance guarantee fund. While it is difficult to accurately measure such risk, several countries, including Argentina, Bulgaria, Portugal, Sweden, and the United States, currently risk-adjust their insurance premiums. In the absence of such risk-adjustment, it is essential that the protection system be compulsory. Otherwise, the best banks will refrain from joining the system or will withdraw from it. A system that includes only the weakest banks will have difficulty in meeting its obligations.

Coverage should be low enough to allow large depositors and sophisticated creditors to discipline their bank by demanding higher risk premiums from weaker banks or refusing to provide funds to these banks outright. Some countries use a system of coinsurance to reduce the incentive to run while maintaining market discipline. Small depositors at failed banks typically need access to their funds rapidly;

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3Coverage that extends to one or two times per capita GDP is a suitable rule of thumb.
## Table 1. Best Practices for the Deposit Insurance System in Normal Times and Departures from Them

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Departures from Best Practice</th>
<th>Issues to Be Discussed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid incentive problems.</td>
<td>Create additional moral hazard and adverse selection.</td>
<td>A poorly designed deposit insurance system can weaken the banking system.</td>
</tr>
<tr>
<td>System explicitly laid out in law and regulation.</td>
<td>The system is implicit and ambiguous.</td>
<td>Transparency.</td>
</tr>
<tr>
<td>Supervisor should have a system of prompt remedial actions.</td>
<td>There are no or late remedial actions.</td>
<td>Should these remedial powers be mandatory or discretionary?</td>
</tr>
<tr>
<td>Resolve failed depository institutions promptly.</td>
<td>Keep open banks that should be closed.</td>
<td>The importance of closure policies.</td>
</tr>
<tr>
<td>Coverage should be low.</td>
<td>There is high, even full coverage.</td>
<td>The appropriate level and the use of coinsurance.</td>
</tr>
<tr>
<td>Membership should be compulsory.</td>
<td>The scheme is voluntary.</td>
<td>How to avoid adverse selection.</td>
</tr>
<tr>
<td>Deposits should be paid quickly.</td>
<td>There are delays in payment.</td>
<td>How to effect prompt payment.</td>
</tr>
<tr>
<td>Adequate sources of funding to avoid insolvency.</td>
<td>The scheme is an underfunded or insolvent scheme.</td>
<td>Underfunding can prevent the insurance system from closing banks and protecting deposits.</td>
</tr>
<tr>
<td>Risk-adjusted premiums.</td>
<td>Flat rate premiums.</td>
<td>How to set premiums according to risk.</td>
</tr>
<tr>
<td>Good information.</td>
<td>Bad information.</td>
<td>Good data are needed for supervisory discipline.</td>
</tr>
<tr>
<td>Information disclosure.</td>
<td>Little or misleading disclosure.</td>
<td>Accurate disclosure is needed for market discipline.</td>
</tr>
<tr>
<td>Independent agency.</td>
<td>Political interference.</td>
<td>How to prevent political interference but promote accountability.</td>
</tr>
<tr>
<td>Bankers on advisory, not the main board.</td>
<td>Bankers are in control.</td>
<td>Conflict of interests.</td>
</tr>
<tr>
<td>Close relations with lender of last resort and supervisor.</td>
<td>Relationships are weak.</td>
<td>Poor lender of last resort policies can raise costs to the deposit protection system.</td>
</tr>
</tbody>
</table>
thus, it behooves the system to compensate insured depositors imme-
mediately, but certainly within 30 days.

The insurance system will need funding that is adequate to meet the
demands being placed on it. An underfunded scheme will prove to be
an obstacle to closing failed banks and so may lead to costly forbear-
ance.\(^4\) A scheme that relies on an accumulated fund will need to
charge premiums that are adequate to build a fund sufficient to meet
these demands in both normal and adverse circumstances. In the lat-
ter case, it may need to borrow temporarily to cover its needs, how-
ever. The government should either provide these funds for the
deposit insurance system itself or guarantee their repayment. The sys-
tem can then make a special levy on banks or raise premiums until the
debt is repaid.

The insurance system should be independent from political inter-
ference, but accountable for its mistakes. Accountability can be
achieved by having the deposit protection system's report financial
statements independently audited, and by requiring it to report peri-
odically to the respective government agency involved and the public.
Achieving the balance between independence and accountability will
require a careful consideration of the particular political and institu-
tional arrangements in the country designing the scheme. The sys-
tem’s board of directors should not be composed of bankers, who may
suffer conflicts of interest with the taxpayer. Bankers can form an
advisory committee to the board, however. In small, developing coun-
tries, the insurance system may be a separately funded and adminis-
tered department of the central bank; larger, developed countries may
prefer to create a separate agency. This agency will not have the
power to grant or withdraw bank licenses or to provide lender-of-last-
resort credit to failing banks; therefore, it will need to have close and
cooperative working relations with the bank supervisor and with the
lender of last resort.

The objectives of the deposit protection agency can be either broad-
ly or narrowly construed. Under a narrow interpretation, it would
merely manage the fund and pay out funds due to depositors. With a
broader mandate, it would also act as the receiver of banks whose
licenses have been withdrawn, determine the method of their resolu-
tion, and undertake their sale or liquidation.

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\(^4\)The best-known example of an insolvent insurance scheme is perhaps the
Federal Savings and Loan Insurance Corporation in the United States, which
practiced forbearance for a number of years with costly consequences for U.S.
taxpayers.
Departures from Best Practices

Regrettably, departures from best practices are common, and a poor incentive structure gives rise to moral hazard and adverse selection. Systems are frequently implicit and ambiguous, rather than being clearly and transparently defined. Coverage is high, leading to moral hazard. Membership is sometimes voluntary and flat-rate premiums disregard the risk a bank places on the system. When the premium level is set too low, the fund itself may become bankrupt, leading to a lack of prompt corrective action and a reluctance to close failed banks. There may be political interference that impedes supervisory action, and the insurance system’s relations with the supervisor and the lender of last resort may be impaired so that non-viable banks continue in business. Allowing weak banks to continue to deteriorate and insolvent banks to continue to operate places burdens on sound banks and typically results in a deterioration in the condition of the banking system.

Departures from best practices can occur in other areas. Insured depositors may receive their funds only after an extended delay so that the retail payments system is disrupted. Depositors, finding themselves without their transactions and savings balances, may curtail their expenditure, which can cause or exacerbate a recession. The information on which the supervisors rely when considering disciplining or closing a bank may be misleading, so that appropriate actions are not taken. The information that is released to the public may be inadequate or misleading, so that market discipline is absent. A deposit insurance system with such problems is unlikely to strengthen the financial system and can contribute to weakening it.

Adjustments to Best Practices During a Systemic Crisis

Once a widespread crisis is in progress, the government may deem it necessary to institute a full guarantee, either by creating an entirely new instrument or by overriding an existing scheme with limited coverage (Table 2). However, it should do so only for a limited period. Lindgren and Garcia (1996) discuss comprehensive coverage during a crisis and methods for removing it in due course.

The best practice for crisis coverage is to make it clear that comprehensive coverage is a temporary measure that is distinct from the regular deposit insurance system. The government should provide the funding for such coverage. These best practices are sometimes violated by having comprehensive coverage that is extended too readily and
Table 2. Best Practices for Deposit Guarantees in Times of Crisis

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Departures from Best Practice</th>
<th>Issues to Be Discussed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extend full coverage.</td>
<td>Full coverage offered too readily.</td>
<td>When does full coverage become necessary?</td>
</tr>
<tr>
<td>It should be known that coverage is only temporary.</td>
<td>High or full coverage is available continuously.</td>
<td>How to remove a full guarantee?</td>
</tr>
<tr>
<td>Government backing for the fund.</td>
<td>The fund becomes insolvent.</td>
<td>Reconciling interests of bankers and taxpayers.</td>
</tr>
</tbody>
</table>

for an unnecessarily long period of time. In addition, the government may fail to provide crisis backing for the fund, which then becomes insolvent. When the insurance system is insolvent, the authorities may be reluctant to close failed banks and the situation worsens.

Summary and Conclusions

While banks are important to the economy, they are vulnerable to illiquidity and insolvency. For these reasons, most governments have chosen to implement a financial safety net to deal with these contingencies. A system of depositor protection that guards the holders of small deposits when their bank fails has in recent years become part of this safety net in a growing number of countries. A well-designed deposit protection scheme can strengthen incentives for good governance for banks (via internal governance from owners and managers, discipline from the markets, and oversight from bank regulation and supervision), but a poorly designed system will impair all three strands of discipline and lead to a deterioration in the banking system. Consequently, good design is essential.

An insurance system faces problems of incentive compatibility for owners, managers, depositors, borrowers, regulators, and politicians. It promotes good internal governance by forcing the closure of critically undercapitalized institutions, making membership compulsory, and charging risk-adjusted premiums. It encourages sophisticated creditors to exert market discipline by providing only low coverage and disclosing good information about the condition of individual banks. Such a system and the supervisory authority both rely on political independence to limit political encouragement for forbearance. Nevertheless, both authorities need to be held accountable to avoid regulatory capture and to ensure that their actions serve the public interest.
References


It is a pleasure to address this group of seasoned bankers and eminent scholars in the field of soundness in the banking industry. My comments are based on experience witnessing the sickness, eventual death, and burial of a number of banks in Kenya.

From the other papers in this volume, one comes to the conclusion that the banking sector has a number of safety nets or safety systems to promote bank soundness. These include the lender of last resort facilitated by central banks, deposit guarantees of various forms, active and routine supervision by a supervising authority, strict disclosure regimes, such as that of New Zealand, and good management. Good management is a safety system in the sense that banks that come close to the grave can be turned around by new managers.

**Deposit Guarantees**

The main focus of these comments is deposit protection. There are two types of deposit protection and guarantees: explicit and implicit. Explicit systems are characterized by precise and documented guarantees with deposit protection arrangements. They tend to vary in design depending on funding arrangements, the structure of the banking system and banking supervision. Typically, deposit protection arrangements are established by the central bank law or banking laws, which usually specify the types of institutions and deposits covered, coverage limits, membership and management of the funds, funding arrangements, and procedures for the resolution of bank failures. Explicit systems are prevalent in the developed countries of Europe and North America.

Implicit systems, on the other hand, are not backed by banking laws or government or other official sector rules. Rather, bank management and depositors assume that the government will protect the banking system in case of a bank failure and will ensure that the public receives at least some of its deposits after a bank has failed.

However, there is no legal obligation on the part of the government, central bank, or other agency to come to the assistance of depositors or the financial system. Bank managers and the public can only expect assistance on the basis of precedent or government tradition. As a result of the lack of rules regarding coverage limits, form of compen-
sation, or funding in the event of failure, there are many gray areas in this type of system. For example, payments by the government are discretionary. Implicit deposit guarantees are prevalent in developing countries, particularly in Africa, where most banks are government owned.

**Deposit Protection in Kenya**

In Kenya, there is an explicit deposit protection arrangement. Between 1896, when the first bank was established, and 1984, depositors’ confidence in the banking system was high and well founded, as there were no bank problems over this long period. Toward the end of this period, however, the seeds of bank insolvency were sown. During the late 1970s and early 1980s, there was a rush to establish new banks and nonbanking financial institutions, and a lot of banks came onto the scene. The potential for failure, stemming from this expansion, was increased by the enactment of an ill-defined banking law that overlooked aspects like insider lending, unsecured loan portfolios, credit concentration, undercapitalization, and a lack of internal controls, compounded by ineffective boards of directors.

The rapid expansion of the financial sector led to aggressive competition for deposits as well as shortage of well-qualified banking personnel. Insufficient internal controls allowed for the establishment of politically connected banks, which were established, in part, to take deposits from parastatals without competition from other banks.

Problems started to show up in the system in 1984, with Kenya’s first bank failure. Since then, 29 others have failed. In addition to the reasons for failure cited above, poor asset quality and overreliance on high-cost funds contributed to problems in the Kenyan banking industry.

The Banking Act was revised in 1985 to address these failures. Its main features are a higher paid-up capital requirement, enhanced supervision powers of the Central Bank of Kenya, establishment of the Deposit Protection Fund Board, and introduction of statutory reserves and gearing ratios for unimpaired capital vis-à-vis deposit liabilities. The establishment of the Deposit Protection Fund Board was perhaps the most important structural change in the banking system to emerge after the 1984 bank failure. It translated a deposit protection arrangement from an implicit to an explicit one, thus adding transparency to the system.

The Chairman of the Deposit Protection Fund Board is the governor of the Central Bank of Kenya, and the other members include four
representatives from licensed banking institutions and the permanent secretary of the Ministry of Finance. Institutional membership is compulsory by virtue of carrying on banking business in Kenya; members pay annual contribution fees equal to 0.15 percent of the average deposits held in a period of 12 months or K Sh 300,000, whichever is higher. These contributions constitute the main source of income for the Deposit Protection Fund Board and are supplemented by interest income mainly from assets that are invested in treasury bills and, if necessary, loans from the central bank.

The key functions of the Deposit Protection Fund Board include surveillance of members' institutions, insurance of deposits, and responsibility for liquidation of insolvent banks. In its surveillance role, the board supervises banks on an off-site basis in conjunction with the Department of Bank Supervision at the Central Bank of Kenya. The board receives reports from commercial banks and non-bank financial institutions for analysis; if it detects an element of stress or any other problem, it alerts the central bank, which in turn orders an on-site inspection.

All types of deposits are insured to a maximum of K Sh 100,000 (about US$1,700). This ceiling protects small depositors because when it was established, 96 percent of depositors had balances under K Sh 100,000. Interbank placements are treated as credits, and claims on these are paid when specified institutions declare dividends.

The Deposit Protection Fund Board is usually appointed by the central bank as liquidator of insolvent banks or nonbanking financial institutions. Liquidation involves selling the institution's assets, paying off protected deposits, debt recovery, paying dividends to eligible creditors and shareholders, and finally, closing institutions. Currently, 16 institutions are under liquidation by the board.

A notable experience under the current explicit deposit protection arrangement in Kenya is that a systematic procedure has been developed for use before any institution is declared insolvent and placed under liquidation. A four-step procedure comes into play when a bank is managed in a manner that is detrimental to the interests of the depositors or members of the public or in a manner that contravenes the Banking Act. The central bank first gives advice and makes remedial recommendations through its bank supervision department. These recommendations are written and the bank is given a deadline for implementing them and the department monitors progress.

The second step is taken if the situation does not improve. The central bank issues directives for further remedial measures to be taken or appoints an advisor to help the institution implement the prescribed corrective measures. This advisor might be from the central bank or
the industry and works with the bank's management. The third step is taken if there is continued deterioration in the conditions of the institution. The central bank appoints a statutory manager who takes full control of the bank and is expected to discharge his duties in accordance with sound banking principles. Statutory managers trace and preserve all the property and assets of the institution, recover all the debts due, and evaluate the capital structure and management of the institution. The purpose of this step is to recommend a restructuring program. The statutory manager may declare a moratorium on payments to depositors and creditors of the institution and may limit the minimum rate of interest that may accrue on deposits or other debts payable by the institution during the moratorium.

The fourth and final step, if necessary, is a liquidation in which the operation of the bank is closed. The Deposit Protection Fund Board is normally appointed as the liquidator by the Central Bank of Kenya. Once this is done, there is no reversal, and the process of liquidation must continue.

Kenya's Experience

Following the collapse of a number of small indigenous banks and financial institutions in the 1980s, there was a marked shift of depositors to well-established banks, which were mainly foreign banks. These banks raised their requirements for minimum balances and imposed other conditions to safeguard their interests. As a result some depositors were unable to open and operate deposit accounts.

Before the four-step procedure outlined above was fully in place, the government formed the Consolidated Bank of Kenya, which amalgamated 14 failed institutions. A new management team took over all the assets and liabilities of these distressed institutions. The Consolidated Bank of Kenya is still in operation today, although it has not been very successful in meeting the intended objectives. On realizing the various limitations associated with the grouping of problematic institutions under a consolidated bank, the Central Bank resorted to restructuring problem institutions. Some banks were successfully restructured and are now functioning, while others were declared insolvent and placed under liquidation as they could not be turned around.

The Deposit Protection Fund Board has created a lot of confidence in the market. Most people know that if banks have problems, the majority of the depositors are protected, and about 90 percent of the depositors will get their money. The credibility of this type of deposit
protection depends on the speed with which protected depositors are paid. If they are paid after three years, they lose confidence; however, if they are paid within a short time, there will be confidence in the protection system. Following the amendment of Kenya's Banking Act, legal provisions have been incorporated to facilitate legal actions against the management and board of directors of failing institutions. The speed with which actions are taken against management and directors is also important. As soon as the institution is placed under management, the irresponsible officers must be prosecuted, an action that enhances confidence. The problem is that legal systems in developing countries are complex, and a case may take a long time to be concluded.

There is no simple universal answer to any of the depositor protection questions. There are only pragmatic answers to deposit protection arrangements. Payout should be swift to bolster confidence, while limits and rules should be established explicitly in advance. Limiting insured amounts can help to limit moral hazard problems, as can the promise of prompt action against management and directors. Bank management, the deposit insurance scheme, and bank supervisors must pay careful attention to coordinate appropriate deposit arrangements.
Part IX

Bank Restructuring
Restructuring the Banking Sector: The Case of the Czech Republic

JOSEF TOŠOVSKÝ

In a market-oriented economy, the banking sector plays an essential role in facilitating payments and intermediating between savers and investors and in allocating credits by relative risk and return to efficient economic agents. A sound banking sector thus contributes to the smooth operation of the economy and to economic welfare. According to some authors the maintenance of a sound and properly functioning banking system could be considered in part a public good.¹

In the case of the Czech banking sector, economic reforms were put in operation in 1991, and banks have had to cope with a number of shocks since the reform. The first stage of economic transformation comprised simultaneous price liberalization, limited currency convertibility, and a rapid wide-ranging privatization of state-owned companies, including a few existing banks. The underdeveloped banking sector was faced with a dramatic increase in the demand for financial intermediation as the number of new companies grew exponentially, and no stock exchange yet existed. At the same time, the “old banks” had to be cleansed of the bad loans inherited from the former regime, and new private banks were established. The split of Czechoslovakia at the beginning of 1993 implied adjustments both for the central bank and the commercial banks.

In 1994, the central bank launched a consolidation program targeting small banks. Some of them had to be closed, others restructured, and others merged. As a consequence, some erosion of credibility has occurred in the banking sector, and together with the government the banking authorities are striving to reestablish it. Extending and upgrading the supervisory department of the Czech National Bank is just one of the institutional changes that has brought about positive outcomes.

**Stages of Development in the Banking Sector**

In the course of transition, the Czech banking system passed through three stages of development:

- An initial period of a rapid growth of banking institutions occurred in the years 1990–93. This development reflected the dramatic increase in the demand for financial services in the initial period of transition, given that the monobank system of the centrally planned economy was maintained in the former Czechoslovakia as late as 1989.

- A period of consolidation followed, marked by an almost entire cessation in the granting of new licenses for general banking activities, although some were allowed for the start of mortgage banks and building societies. This stage was intended to enhance the stability of the emerging two-tier banking sector, to secure the implementation of prudential rules, and to improve the system of banking supervision. The consolidation, particularly of small banks, was expected to be supported by mergers and takeovers, as well as by the entry of new investors and the injection of fresh capital. In that respect, the process is still under way.

- The follow-up period overlaps somewhat with the consolidation and is linked to the adjustment to EU standards. This implies a further upgrading of the efficiency and competitiveness of the domestic banking sector, as well as making the prudential rules and legal framework compatible with the conditions in the European Union.

As follows from Table 1, the time pattern of banking sector development in the Czech Republic resembles that in other transition economies. A rapid increase in new entries into the banking business during the first transition period of 1990–93 (53 new banks) was followed by the period of the “closed shop” in 1994–95. As a result, four bank failures in the latter period implied a corresponding decrease in the number of operating banks. Moreover, the lessons learned showed
that most small private banks founded in 1990–92 experienced substantial difficulties later.

Although large banks still dominate Czech banking, their share in total assets has been decreasing gradually since 1990. In the first transition years, it was due to the entry of new small private banks; more recently, the intensification of the role and activities of foreign banks and foreign bank branches has been the primary cause.

Whereas at the beginning of 1990 the operating banks in the Czech Republic were state owned, there remained only one bank, Konsolidacni banka, that was entirely state owned, apart from the central bank, at the start of 1993. Most banks took the form of joint-stock companies. However, the National Property Fund has retained a significant stake of 30 to 43 percent in the “old” banks (the “big four”) privatized through the voucher scheme. The other banks, newly created ones, are owned either by domestic or foreign capital.

The Law on Banks (No. 21/1992) provided for a liberal regime for the entry of foreign banks, and at mid–1993 half of all licensed banks in the Czech Republic were either partly or wholly foreign owned. In

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One exception was the Czechoslovak Trade Bank, which was constituted as a joint-stock company, with 51 percent of equity capital owned by the State Bank of Czechoslovakia and the remainder by specialized foreign trade corporations.
accordance with the law, foreign banks can establish not only joint-venture banks and wholly owned subsidiaries as before, but also branches.

Most banks have developed as universal banks, a trend also seen in the Polish solution. By contrast, the Hungarian legislation encourages a more pronounced separation of commercial and investment banking. Along with universal banks, a number of specialized banking institutions started their activities, including the Czech-Moravian Guarantee and Development Bank (to promote small and medium firms), and savings banks for housing construction and mortgages.

**Stabilization of the Banking Sector**

In the first phase of economic transformation, the central bank and the government had to address a legacy of the past—nonperforming loans in the portfolios of large banks. Within the adopted stabilization program, they could write off or restructure a part of bad loans. The costs of the clean-up operations were covered by the privatization proceeds; a part was passed over to the banks' clients via the interest rate spread. This partial stabilization had a positive effect on those banks that could intermediate more efficiently between depositors and debtors and respond to rising demand for banking services. The first tranche of the costs of partial stabilization of the banking sector could be thus viewed as a part of the social cost of economic transformation.

The second tranche of the restructuring costs arose when the stabilization of small private banks was launched by the central bank. Unlike those of large banks, the problems of several small banks were rooted in the economic transformation itself, when the newly established private banks (lacking prior experience and qualified personnel) extended credits to finance privatization and restructuring projects as well as investment projects in the nonfinancial sector. Since the state-owned companies were not restructured before privatization and the new companies had no real credit histories, the banks were exposed to extremely high risks. Indeed, a number of the projects failed to meet high expectations as to their rate of return, and the banks became captives of the nonviable indebted companies facing insolvency, default, and in some cases liquidation.

The second tranche was borne by the central bank, the insurance fund for deposits, and banks' shareholders, including in the cases of mergers. Again, at least a large part these costs is attributable to and inseparable from the economic reforms taken since 1991.
Excess Demand for Banking Intermediation

The two-tier banking structure was created in 1990 through the transfer of portfolios from a monobank system. Only five banks were operating in the former Czechoslovakia at the start of banking reform. Leaving aside the special case of Živnostenská banka, they all were severely undercapitalized and at the same time burdened with inherited nonperforming loans and credits extended at artificially low interest rates.3

The economic transformation in the real sector implied a rapid expansion of registered business firms (see Table 2). Given the initial low capacity and low level of banking sector development, the demand for banking services after reform, let alone payment transactions, surpassed the capacities of the existing banks. The degree of monetization increased quickly and reached a level comparable with Austria (see Table 3). High demand for bank credits originated in the en masse privatization program, a part of it effected through direct sales to new owners who lacked capital. The underdeveloped banking sector was exposed to a type of intermediation burdened with a high risk usually taken by venture capital.

New firms, including privatized state enterprises, did not initially have easy access to banking services, particularly credits. The general public and the government exerted pressure on the banks to increase their exposure in the privatization and restructuring processes in the real economy.

The banks became subject to criticism because of their “uncooperative” approach in extending credits to the corporate sector. When the operating banks were unable to meet the high demand for banking services, entry of new banks to the banking sector became necessary. Another reason to encourage entry was to increase competitiveness and support banking product differentiation. Otherwise banking credits would have been replaced by interenterprise debt—in fact, enforced trade credits. Also of concern were the risks inherent in the transition from transfer to cash payments and finally to barter trade. The threat of demonetization was met with accelerated growth of banking sector capacity, granting banking licenses to new banks including foreign ones.

3According to available sources, after start of the transition in 1991, about one-quarter to one-third of the outstanding loans were evaluated as bad, nonperforming, or high risk.
Table 2. Registered Firms and Employees in the Finance and Insurance Sector

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Number of registered units</td>
<td>18,837</td>
<td>178,993</td>
<td>955,647</td>
<td>1,118,637</td>
</tr>
<tr>
<td>Number of employees in finance and insurance</td>
<td>27,697</td>
<td>37,409</td>
<td>50,932</td>
<td>64,621</td>
</tr>
</tbody>
</table>

Source: Czech National Bank.

Consolidation Program I

One legacy of central planning was a substantial volume of bad loans in the portfolios of operating banks and their initial undercapitalization. The Consolidation Program I was implemented in the period 1991–93 to prevent a systemic crisis with potentially serious destabilizing effects on the real economy in the first phase of its transformation. Compared to the international standard of capital adequacy (at least 8 percent capital to asset ratio), the major Czech banks were operating at or below 1 percent. In technical terms, all banks were insolvent.

The conception, consolidation and recapitalization of banks can be carried out either in a centralized or decentralized way. The two approaches can also be combined. The former means that all bad loans are transferred to a special institution. In the Czech Republic, this was Konsolidační banka (KOB). The latter is based on the prerequisite that individual banks “handle” these credits themselves. Both methods require capital injections, particularly if the banks are heavily undercapitalized in the initial period.

The clean-up operation reduced the bad loan burdens of the big banks. Initially Kč 22.2 billion and through recapitalization of the banks Kč 7.8 billion of new capital was injected into the banks’ balance sheets. Both were covered from the privatization proceeds of the National Property Fund (NPF). On top of those operations, KOB purchased from the commercial banks credits worth Kč 15.1 billion at 80 percent of their nominal value. The remaining 20 percent was covered from the reserves of the respective banks.

The most important outcome of the Consolidation Program I was its effect on the real economy. Because of recapitalization and partial consolidation of the major banks during the first phase of economic transformation, these banks could fulfill their intermediating function between depositors and credit recipients more efficiently and service financial transactions during the critical period of privatization and
Restructuring the Banking Sector: The Case of the Czech Republic

Table 3. Monetization of Selected Economies

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<tbody>
<tr>
<td><strong>Czech Republic</strong>¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M2</td>
<td>546.6</td>
<td>695.1</td>
<td>588.1</td>
<td>704.6</td>
<td>845.1</td>
<td>1,012.3</td>
<td>1,102.7</td>
</tr>
<tr>
<td>GDP</td>
<td>811.3</td>
<td>977.8</td>
<td>840.1</td>
<td>967.1</td>
<td>1,101.9</td>
<td>1,252.1</td>
<td>1,411.6²</td>
</tr>
<tr>
<td>M2/GDP</td>
<td>0.67</td>
<td>0.71</td>
<td>0.70</td>
<td>0.73</td>
<td>0.77</td>
<td>0.81</td>
<td>0.78²</td>
</tr>
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<tbody>
<tr>
<td><strong>Germany</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M3</td>
<td>1,503.0</td>
<td>1,597.7</td>
<td>1,718.7</td>
<td>1,906.7</td>
<td>1,937</td>
<td>2,007.4</td>
<td>...</td>
</tr>
<tr>
<td>GDP</td>
<td>2,426.0</td>
<td>2,853.6</td>
<td>3,075.6</td>
<td>3,158.1</td>
<td>3,320.4</td>
<td>3,457.4</td>
<td>...</td>
</tr>
<tr>
<td>M3/GDP</td>
<td>0.62</td>
<td>0.56</td>
<td>0.56</td>
<td>0.60</td>
<td>0.58</td>
<td>0.58</td>
<td>...</td>
</tr>
</tbody>
</table>

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<tbody>
<tr>
<td><strong>Austria</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M3</td>
<td>1,458.3</td>
<td>1,600.0</td>
<td>1,664.5</td>
<td>1,729.6</td>
<td>1,822.3</td>
<td>1,910.5</td>
<td>...</td>
</tr>
<tr>
<td>GDP</td>
<td>1,794.0</td>
<td>1,913.0</td>
<td>2,037.6</td>
<td>2,114.6</td>
<td>2,255.4</td>
<td>2,345.1</td>
<td>...</td>
</tr>
<tr>
<td>M3/GDP</td>
<td>0.83</td>
<td>0.84</td>
<td>0.82</td>
<td>0.82</td>
<td>0.81</td>
<td>0.81</td>
<td>...</td>
</tr>
</tbody>
</table>

¹For 1990–91, Czechoslovak data; data for M2 aggregate in 1990–91 are based on a constant exchange rate of US$1 = Kč 28, nonresident deposits included.
²Forecast.

the entry of new firms to the market. Despite some problems, the risk of a systemic crisis in the banking sector and destabilizing effects of such a crisis on the real economy was avoided. Compared to the experience of other transition economies, this effect cannot be overemphasized. Several economies (Bulgaria, Latvia, Hungary, Ukraine, and others) have undergone a full systemic crisis in the banking sector. One of the reasons seems to be hesitation with respect to the major banks' consolidation.

The consolidation and recapitalization of the banking sector was costly and would not have been possible if the government and the National Property Fund had not shared the costs. During the subsequent transformation, the costs of banks' consolidation and recapitalization yielded returns to the NPF. Following privatization of the companies whose bad debts were restructured or written off, the NPF could collect higher revenues than would otherwise have been the case.

The prevention of a systemic crisis seems to have its own value, however: "The possibility of contagion means that a single bank failure carries with it larger impact to the extent that it leads to or is associated with other bank failures and a shutting down of the payment
system." The costs borne in preventing it—especially in the period of transition from a centrally planned to a market-type economy—are therefore intrinsically social ones.

Consolidation Program II

Consolidation Program II, in contrast with the consolidation of the major banks in the first phase of economic transformation, focused on small and medium-sized banks established as new private banks after 1990 (Table 4). Although the first partial consolidation of some small banks was worked out as early as 1993, a more comprehensive approach was implemented by the Czech National Bank and its banking supervision arm only later. For this reason the central bank prepared a comprehensive program of small-bank consolidation in order to prevent a domino effect, following the default of some of them. This would have led to a loss of confidence in all small banks, a reduction in their access to the interbank market, and a transfer of deposits to major banks.

The small banks differ from the major banks in two basic characteristics: they lack the more substantial base of primary deposits and are disproportionately exposed to risky businesses. Small banks, which at the start of their existence had to build up a branch network and cope with the traditional inclination of depositors to prefer established major banks, first became dependent on central bank refinancing and later on the interbank deposit market. As interest rates in this market were high, the assets of small banks became concentrated in credits and other claims with high risk.

When the first small bank failed, the small banks as a group faced a slowdown and then a decline in the growth of deposits. At the beginning of 1996, several small banks were unable to cope with the diminishing deposits; the composition of their liabilities and the poor quality of credit portfolios created heavy pressure on their liquidity. Despite stabilization efforts made on behalf of these banks, the authorities were largely unsuccessful in stopping this unfavorable development. Banking supervision at the Czech National Bank sometimes even encountered unwillingness on the part of bank owners to attempt radical solutions to the problems.

Restructuring the Banking Sector: The Case of the Czech Republic

Table 4. Small Banks Under Liquidation, Conservatorship, and Prepared for Merger

<table>
<thead>
<tr>
<th>Name of Bank</th>
<th>Method</th>
<th>Total Assets (in billions of koruny)</th>
<th>Total Assets as a Percent of the Banking Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>První slezská banka</td>
<td>License revocation, liquidation</td>
<td>1.31</td>
<td>0.07</td>
</tr>
<tr>
<td>Kreditní banka Plzeñ</td>
<td>License revocation, liquidation</td>
<td>22.55</td>
<td>1.17</td>
</tr>
<tr>
<td>Podnikatelská banka</td>
<td>Conservatorship</td>
<td>5.16</td>
<td>0.26</td>
</tr>
<tr>
<td>Realitbanka</td>
<td>Conservatorship</td>
<td>1.40</td>
<td>0.07</td>
</tr>
<tr>
<td>Velkomoravská banka</td>
<td>Conservatorship</td>
<td>4.50</td>
<td>0.23</td>
</tr>
<tr>
<td><strong>Subtotal, conservatorship or license revocation</strong></td>
<td></td>
<td>35.22</td>
<td>1.8</td>
</tr>
<tr>
<td>COOP banka</td>
<td>Conservatorship, takeover by Foresbanka</td>
<td>5.70</td>
<td>0.29</td>
</tr>
<tr>
<td>Ekoagrobanka</td>
<td>Conservatorship, takeover by Union banka</td>
<td>15.42</td>
<td>0.79</td>
</tr>
<tr>
<td>Bankovní dům Skala</td>
<td>Takeover by Union banka</td>
<td>7.04</td>
<td>0.36</td>
</tr>
<tr>
<td>Evrobanka</td>
<td>Takeover by Union banka</td>
<td>9.97</td>
<td>0.51</td>
</tr>
<tr>
<td><strong>Subtotal, prepared for merger with another bank</strong></td>
<td></td>
<td>38.13</td>
<td>1.95</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>73.35</td>
<td>3.75</td>
</tr>
</tbody>
</table>

Source: Czech National Bank.

The culmination of several small-bank failures in 1996 is explained by the identical lifecycle of their portfolios. Credits granted in the 1992–93 period “matured” in 1995–96, and many of them turned out to be loss making. An overview is given in Tables 3 and 4.

The basic and common cause of the problems facing small banks was the rapid credit expansion at the start of their activities. All banks with solvency problems created the major part of their credit portfolios in the period of 1992 to 1993. Yet the highest credit risk exposures also originated in this period.
Identification by banking supervision of the quality of these credits was significantly complicated by the absence of a uniform system for classification of credit portfolios. Only after 1994, when the central bank introduced strict principles of classification of credits and creation of reserves and provisions against classified credits, was it possible to identify poor-quality credits in bank portfolios. This led to a significant, once-and-for-all increase in recorded classified credits, and their share in total credits roughly tripled to reach about one-third of credits in the banks' portfolios by 1996. It is interesting to note that auditors' reports did not signal any major problem in these banks until the end of 1994.

The main reason for adopting the measures within Consolidation Program II was to prevent a loss of confidence in banking institutions. Although small banks have only about 10 percent of the bank market, the continuing bankruptcies of small banks might gradually undermine public confidence in the banking sector as a whole.

The basic approach adopted by banking supervisors with respect to the small banks was to make existing shareholders and new investors adequately increase the bank's capital and actively participate in the process of restructuring the bank. If these measures were successful, the deposits would be safe, and there would be no need for public funds to stabilize and rehabilitate the bank (see Table 5). An example of bank stabilization by means of new capital is Universal banka. A merger with partial participation of public funds also might prove less costly than closing a bank and compensating depositors; the latter was employed in Evrobanka, Bankovní dům Skala, Ekoagrobanka, and COOP banka (see Table 4). Liquidation of a bank was initiated only if the above methods failed.

To prevent a subsystem crisis, the Czech National Bank, in individual cases, provided guarantees for deposits above the limit of the deposit insurance fund. Within this context, the issue of moral hazard often arises. The Czech banking system did not face moral hazard in the standard sense. Rather, the failures of small banks, where deposits were insured only in small amounts, caused an erosion of confidence in the whole banking sector, and depositors started to shift deposits to large banks and later to withdraw them altogether. The banking authorities had to provide extra guarantees to the depositors to stem the flight, and consequently the costs of stabilization were higher than if a wider deposit insurance scheme had been introduced from the beginning.

**Role of Banking Supervision**

The incidence of bank failures highlights the role of banking supervision. The crucial objective of banking supervision is often the miti-
Restructuring the Banking Sector: The Case of the Czech Republic

Table 5. Small Banks Recapitalized by Shareholders and New Investors

<table>
<thead>
<tr>
<th>Name of Bank</th>
<th>Source of Capital</th>
<th>Total Assets (in billions of koruny)</th>
<th>Total Assets as a Percent of the Banking Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal banka</td>
<td>New investors</td>
<td>4.59</td>
<td>0.23</td>
</tr>
<tr>
<td>Moravia banka</td>
<td>Existing shareholders</td>
<td>11.8</td>
<td>0.60</td>
</tr>
<tr>
<td>Banka Haná</td>
<td>Multiple increase capital under way</td>
<td>24.13</td>
<td>1.23</td>
</tr>
<tr>
<td>Pragobanka</td>
<td>Shareholders</td>
<td>21.56</td>
<td>1.10</td>
</tr>
<tr>
<td>Zemská banka</td>
<td>Bank under restructuring, limited activities</td>
<td>1.96</td>
<td>0.10</td>
</tr>
<tr>
<td>Plzeňská banka</td>
<td>Existing shareholders</td>
<td>3.37</td>
<td>0.17</td>
</tr>
<tr>
<td>Foresbanka</td>
<td>Existing shareholders</td>
<td>12.40</td>
<td>0.63</td>
</tr>
<tr>
<td>První městská</td>
<td>Capital increase unnecessary</td>
<td>6.18</td>
<td>0.32</td>
</tr>
<tr>
<td>Union banka</td>
<td>Bank will increase capital to effect a merger</td>
<td>13.89</td>
<td>0.71</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>99.88</td>
<td>5.09</td>
</tr>
</tbody>
</table>

Source: Czech National Bank.

Systemic risk can be classified according to the potential causes:6

- vulnerability of banks to depositor runs;
- risk to the payment system, as when a large participant fails to meet clearing obligations; and
- destabilizing trading practices arising from "procyclical" trading practices.

If the role of banking supervision is to reduce or limit systemic risk, then this target can be achieved in part through a high degree of pub-

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lice confidence in banks, since in a climate of uncertainty even a solvent bank could easily lose the confidence of depositors. An important reduction of this risk can be achieved by attempts at controlling banks' solvency and liquidity. A further step is the imposition of a minimal capital requirement and, at the same time, the limitation of risk exposures to individual borrowers and limits for credit exposure.

Banking supervision as a regulatory body was established as part of the central bank in 1991. Like enterprises in the nonfinancial and the banking sectors, banking supervision has had to deal with rapid changes in the real economy. Those changes, for a time, outpaced the capacities of the institutional and legislative framework; property rights were often enforced de facto rather than de jure; and, last but not least, the pool of qualified personnel for the financial sector was very limited initially. The first phase of banking supervision development was marked by a lack of experience. Regulatory and supervisory activities lagged behind banking sector development.

Banking supervision's capacity to act effectively increased gradually. New regulatory rules clarifying existing provisions and initiating amendments to legal norms were introduced. When the first serious problems were identified, roughly in 1993, a comprehensive analysis of the situation in the banking sector and in banking supervision was carried out. This evaluation led to two principal provisions, the first of which was a temporary licensing moratorium and the second a substantial strengthening of banking supervision personnel. It is necessary to emphasize that hardly any other central bank activity saw such an expansion as the inspection and analytical activities of banking supervision.

In 1995, banking supervision arrived at a stage where it was able, based on consistent monitoring of banks' situations, to identify problems in time to find adequate responses, and enforce them. In principle, by the end of 1995, a more sophisticated regulatory system for the Czech banking sector was completed. This system has enabled legal procedures to be taken and radical solutions found for the accumulated problems in the banking sector. More and more a need for broader supervision of the financial sector is surfacing, however.

Banking supervision as regulator of the banking industry will now focus more on competition and efficiency. The Czech banking sector lags considerably behind neighboring Austria and Slovenia (see Table 6). The latter country has experienced similar transition issues to the Czech Republic. Although the interest rate spreads that the Czech banks operate fell dramatically in 1994 and 1995, they were still roughly twice those of foreign banks operating in the domestic market.
Table 6. Profitability and Effectiveness of Czech, Slovenian, and Austrian Banking Sector, 1995

<table>
<thead>
<tr>
<th></th>
<th>Czech Republic</th>
<th>Slovenia</th>
<th>Austria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on equity (in percent)</td>
<td>5.5</td>
<td>7.7</td>
<td>7.8</td>
</tr>
<tr>
<td>Return on assets (in percent)</td>
<td>0.19</td>
<td>1.0</td>
<td>0.34</td>
</tr>
<tr>
<td>Interest rate spread (in percent)</td>
<td>4.66</td>
<td>6.54</td>
<td>2.77</td>
</tr>
<tr>
<td>Inhabitants per branch</td>
<td>3,052.00</td>
<td>3,460.00</td>
<td>1,350.00</td>
</tr>
<tr>
<td>Banking assets (in billions of dollars)</td>
<td>65.51</td>
<td>18.50</td>
<td>233.20</td>
</tr>
</tbody>
</table>

Source: Czech National Bank.

In order to stabilize the segment of small banks further and regain the confidence of the general public, the Czech National Bank launched a new scheme in 1996 within which the banks have been invited to temporarily clean their loan portfolios and use the breathing room to build up reserves and upgrade know-how with the help of the central bank. The aim of the scheme is not only to buy time for addressing the issue of bad loans but also to prevent or minimize new nonperforming credits. The funding is provided by the central bank and guaranteed by the government.

**Anticipated Developments**

Because of the above measures, the Czech banking sector has been generally cleaned up and stabilized and, in financial terms, is in much better shape now than at any time since the start of economic reforms. Therefore, the future supervision of banks will focus on monitoring changes in the financial “soundness” of banks rather than on solving their bankruptcies. The banking sector is likely to be more influenced now by other phases of ownership restructuring in the area of the real economy and by completing the privatization of major banks. In addition, capital market development will generate greater competition in the banking sector, and the integration of Czech banks into European structures will expose Czech banks more substantially to the influence of strong banks from the EU countries.

Experience shows, however, that banking crises are frequent even in developed market economies. It is thought that the main reason lies in the discrepancy between the speed and scope of financial operations on the one hand and the lesser flexibility and adjustment of the real economy on the other. In the case of the Czech banking sector, the character of the economic transformation—including still inadequate
regulation of the environment in which the banks operate—have amplified these factors. I have in mind both the business legislature and the regulation of domestic financial markets, where banks are undoubtedly the most strictly regulated entities. However, banks are affected by the inadequate regulation of other parts of the financial markets, like capital and insurance markets and investment and pension funds. The banking sector still needs to adopt standard principles of business ethics and make other segments of the financial sector follow.

Obviously, the development of the Czech banking sector is proceeding fast and the know-how acquired is currently at an incomparably higher level than several years ago. Nevertheless, the banks still have a way to go before they approach the strength and sophistication of banks in advanced countries.

**Final Remarks**

An analysis of problems in the Czech banking sector points to many causes that were difficult or impossible to avoid. The banking sector as well as its regulators had to learn by doing, and mistakes inevitably happened. One must dismiss the naive idea that a functional market environment can be created overnight and then the next day be staffed by educated economic agents.

In fact, the same sort of problems can be observed in other segments of the financial sector: capital market institutions, commercial and health insurance companies, and pension funds. One can go even further and point to similar banking and financial sector failures in other central and eastern European countries. From this perspective, the cost of consolidation should be seen as a “transition tax” paid by the whole society.

It would be unfair, however, to blame only objective reasons for the above transition tax. Part of the consolidation cost should be attributed to a misperception of the role of markets in the economy. Proper regard was not paid to the fact that while some reform measures can and should be done quickly, others, like forming market institutions, changing the legislative framework, or cultivating new behavior, are of a gradual nature. This institutional dimension of the transition process seems to lag behind the growth of the financial sector. Therefore, the measures directed toward overcoming the problems should concentrate predominantly on it.
This candid and complete paper made by Josef Tošovský on the recent evolution of the Czech banking sector made me reconsider the general issue of restructuring the banking sector. In my comments, I will therefore share some thoughts both on the specific case of the Czech Republic and on the process of restructuring the Argentine financial system that occurred during the same period.

Some very important issues appear in Tošovský’s paper. Specifically, the paper rightly gives great importance to the need for banking sector liberalization, for privatizing public banks, and for opening the sector to foreign banks. These are fundamental themes, which should not be lost in the specifics of banking sector restructuring.

But, in addition, the paper presents important thoughts on the process of bank restructuring, including the need to take into consideration the legal infrastructure, the problems that rise from the shortage of human capital, and the problems of restructuring the financial system at the same time that the economy is undergoing general reform.

In the Czech case, the appearance of new private banks, facing a shortage of human capital, in an underdeveloped institutional framework posed additional challenges. Further, on top of the severe information problems related to the structural reform process, there was significant uncertainty at the individual firm level owing to the lack of credit histories, since most firms were newcomers. These features complicate even the most expert credit analysis.

The paper also emphasizes the need for an appropriate set of incentives for the private sector to recapitalize and restructure troubled banks, as part of a broader theme of minimizing the cost of restructuring.

Last, but definitely not least, Tošovský also effectively addresses the essential need to develop a well-designed prudential regulatory framework and a strong supervisory body to help in the transition and prevent future problems.

The Argentine Banking System in 1991

The Czech experience shares many similarities with the developments in the banking sector in Argentina, which occurred at the same time. In 1990, Argentina embarked on a program to end 50 years of economic policy based on government intervention, which had led to
a highly regulated economy closed to foreign competition and which had resulted in the government's direct involvement in the production of many goods and services, including banking services. High inflation, low productivity growth, and permanent external imbalances were the legacy of this economic policy.

As a result, Argentina, which had ranked tenth in the world in 1900 in per capita GDP, achieved the dubious honor of falling to forty-ninth in that ranking by 1989. This period ended with hyperinflation, a painful experience but one that gave the government the political support it needed to overhaul the economic system.

The new policy implemented in 1991 was based on ensuring price stability to investors, opening the economy to trade (both in the goods and capital accounts), reducing government intervention, and eliminating regulations. This program came to be known as the convertibility plan.

All economic sectors reacted favorably to the new policy environment and made the changes needed to increase productivity to compete internationally, an outcome that produced an annual rate of growth of 6 percent for the period 1991–96. The financial sector was no exception. This sector had developed the same shortcomings as the rest of the private economy.

First, the public banking sector was a significant force; in 1991, it included 6 national banks and 29 provincial banks, accounted for 46 percent of the nation's deposits, and set the standard for efficiency, even for the 132 private sector banks. The structure of the financial system, with this very large number of banks, was therefore highly inefficient. The average cost of intermediation in 1991 was 10.1 percent of assets. One explanation for this inefficiency is the fact that—in the aggregate—the banks had very little business: the level of monetization of the Argentine economy plummeted from 45 percent of GDP in the 1940s to a mere 5 percent in 1989, basically owing to the high negative real interest rates that existed during most of the period. On the other hand, the public sector banks received permanent subsidies through the sharing of the inflationary tax, via rediscounts again, at negative rates.

The private sector banks were no less protected since their main competition was from the public banks. They also received frequent bailouts through devaluation and rapid changes in the rate of inflation—policies that reduced periodically the value of their liabilities—and also through some specific policies, such as special rediscounts from the central bank.

The incentives, even for the private banks, to conduct high-quality credit evaluations were weak. For many years, the real interest rate
was negative, so that the credit officer had a very easy job: that of granting subsidies. Moreover, in the latter part of the 1980s, the external debt crisis led the national government to finance fiscal deficits in the banking system, and so the banks lent very little to the private sector of the economy. If this was not enough to produce a weak management structure, the high volatility of relative prices, owing to inflation and devaluation, did the rest, making it almost impossible to screen good from bad projects.

At this time, the work of Argentina's Superintendency of Banks (the main supervisory body) was concentrated on controlling some important policy objectives, namely compliance with foreign exchange controls and lending to the government, through the reserve requirements. Little attention was placed on the proper supervision of prudential regulations.

The restructuring of the banking sector, which occurred during the period 1991–96, first aimed to change the regulatory and supervisory system and then to address the more specific issues of restructuring the public and private banks.

**Regulatory and Supervisory System**

Reform of the regulatory and supervisory system was of the utmost importance. Prudential regulations had to be put into effect, and a restructuring of the role of the superintendency was needed, to shift from supervising whether exchange rate controls and reserve requirements were met, to determining whether banks were meeting prudential regulations.

Emphasis was given to five regulations: (1) capital requirements, (2) credit quality, (3) liquidity requirements, (4) loans to associates, and (5) loan concentration. With respect to capital requirements, the recommendations of the 1988 Basle Accord were introduced in 1991, but with higher numbers. Instead of adopting the 8 percent risk-weighted capital-asset ratio, Argentina uses an 11.5 percent requirement, to take into consideration the higher need for capital in a banking system subject to restructuring and operating in an economy in the process of general reform. In addition, the capital requirements increase with the interest rate charged on each specific loan, to take into consideration the higher risk present in credits extended at very high interest rates.

However, it is not enough to have a good capital-to-asset ratio, since capital itself is the difference between credits outstanding and liabilities. It is also of the utmost importance to have a good measure
of the quality of the loan portfolio. The regulation concerning provision was completely overhauled, moving to an analysis of cash flows for commercial credits (arbitrarily defined as those larger than $200,000) and leaving a quantitatively oriented method for analyzing the quality of consumer credit.

The liquidity policy was based on the reserve requirements imposed on banks, which, given the convertibility plan, implied that the banks held internationally liquid assets in proportion to their deposits. This policy, which was very useful in dealing with the 1995 liquidity crisis, had one problem. Since reserve requirements, being nonremunerated, were imposed on the more inelastic liabilities of the banks—namely, checking and saving accounts—the amount of systemic liquidity that a bank had depended on the proportion of liabilities held as sight deposits, a variable that proved to be inversely related to the run on the bank.

A general overhaul of the system was completed at the end of 1995, substituting reserve requirements for liquidity requirements. The banks now have to hold internationally liquid assets in their portfolios in common proportion to all of their liabilities, the proportion changing from zero percent to 17 percent according to the time remaining to maturity of the liability. Today, the level of liquidity requirements of the financial system is on the order of 17 percent of deposits and will rise to 20 percent by the beginning of 1997. This policy has been complemented by a strict surveillance of the liquidity gap, and by a $6.1 billion contingent line of credit that will provide liquidity against Argentine public bonds that banks already have in their portfolios and that amount to more than 10 percent of total deposits. So, if one takes systemic liquidity as a whole, the system will be operating at a level of liquidity of some 30 percent of deposits.

Another issue to which special attention has been given is associated or “connected” lending (to insiders or others associated with the bank). In Argentina—as in many other countries—bank failures have occurred largely because of poor lending practices or outright fraud. Even though it is very difficult to prevent fraud, the Argentine authorities have established severe limits to connected lending and also have monitored this regulation. Last, but not least, standard international limits for the concentration of the loan portfolio were adopted.

With these prudential regulations in place, the next step was to reorganize the Superintendency of Banks, so as to give this agency the precise powers necessary to be effective in controlling banks. The new charter for the central bank established, first, the independence of the central bank in matters related to monetary policy. Additionally, it created the Superintendency of Banks, which is within the central
bank but retains a certain degree of autonomy to pursue its objectives. There have also been changes in methods and in the qualifications of the personnel. In particular, the supervisory method adopted resembles that used in the United States, being based on "on-site inspection" leading to a CAMEL rating.

Restructuring the Public Banks

The solvency problems of public banks had, as their source, the incentives of the authorities in the past. These led to lending policies that were at best arbitrary and at worst driven by clear noneconomic motives. In addition, a lack of adjustment at the national and provincial levels contributed to the problem, as governments saw their banks as a financing tool. The inflationary tax was crucial to maintaining these inefficiencies.

The restructuring of a provincial bank is the decision of the provincial government, so that a set of incentives had to be put into place to protect the privatization process. The price stability that resulted from the convertibility plan eliminated the inflationary tax as a source of funding and so changed the political economy of the public banks. On the one hand, the banks could no longer be used as a financing tool by the government, and the inefficiencies of the banks caused losses that had to be covered. Provincial banks, which up to then were regarded by the provincial governments as a source of income, became a source of expenditure, and hence the incentives to dispose of them started to work actively.

With the incentives in place, what was required were the instruments to achieve their ends. The scheme developed consisted of removing some nonperforming credits from the balance sheet of the bank, leaving them in a residual bank, and replacing them on the asset side with support provided by a special fund: the Provincial Development Fiduciary Fund, which was created to aid in the recapitalization and privatization of provincial banks. Funds from the Inter-American Development Bank ($750 million) and the World Bank ($500 million) and a $1 billion contribution from the state yielded the resources.

The fund could directly lend to banks in the process of privatization or buy assets from them. More generally, it could also lend to the provincial governments, which were privatizing provincial enterprises.

In practice, when a bank was being privatized the provincial authorities created a business unit, to be sold, comprising selected assets and liabilities from the former provincial bank. The remaining assets, typ-
ically of dubious quality, were allocated to a residual bank through which the fund provided assistance to the province. The provincial government would then seek a third party to manage that residual portfolio, which could be the newly created bank or another party.

The loans are disbursed in two tranches. The first is one-third of the total amount and is paid when the provincial authorities agree to a privatization program (which includes assuming part of the bank’s liabilities and guaranteeing the loan with its resources). The second tranche, the remaining two-thirds, is paid when the privatization process is completed (including the creation of a residual bank). The amount now committed is $1,217 million, with 79.3 percent already disbursed ($965.4 million).

Specifically, the fund has lent to help in the restructuring and privatization of 16 provincial banks, of which 14 are already privatized and the rest are in the process of privatization. Seven provinces still maintain public banks. Table 1 includes some details regarding bank restructuring in Argentina in both the public and the private sector. The privatizations lie behind the significant reduction in the number of public banks.

**Restructuring of the Private Banks**

The restructuring process of private banks stemmed from a much more general transformation process, involving the comprehensive structural reforms implemented since the convertibility plan in 1991 and which eventually implied that the banking sector had to adjust to the new environment: price stability, the disappearance of the government as the main borrower, the growth of the financial system, the strong investment boom that boosted private credit demand, and the adjustment to the upgrading of prudential regulations to international standards, among others.

The restructuring of troubled private banks was conducted using two main instruments, to which a third has recently been added. The first two were (1) the new powers granted to the Superintendency of Banks, which allowed it to order a bank to provision bad loans, so as to increase capital to meet capital deficiencies, and, if those efforts failed, to sell the shares or to close the bank; and (2) a bank Capitalization Fiduciary Fund, which was funded with government resources coming from a bond issue of $2 billion and a contribution from the World Bank of $500 million.

The fund can directly inject capital into the restructuring bank, buy and sell its shares, buy part of its assets, or simply lend to it. The cen-
Comment 501

Table 1. Bank Restructuring in Argentina

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<tbody>
<tr>
<td>Total number of financial institutions</td>
<td>214</td>
<td>206</td>
<td>158</td>
<td>148</td>
</tr>
<tr>
<td>Public banks</td>
<td>35</td>
<td>34</td>
<td>29</td>
<td>20</td>
</tr>
<tr>
<td>Private banks and financial institutions</td>
<td>179</td>
<td>172</td>
<td>129</td>
<td>128</td>
</tr>
<tr>
<td>Deposit concentration in the private sector</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of small institutions with 20 percent of the deposits</td>
<td>138</td>
<td>129</td>
<td>103</td>
<td>100</td>
</tr>
<tr>
<td>Deposits held by 20 largest institutions (in percent)</td>
<td>66</td>
<td>65</td>
<td>78</td>
<td>74</td>
</tr>
</tbody>
</table>

The central bank can request from the fund the arrangement and transfer of assets and liabilities of restructuring banks. In practice, the fund has used two instruments to help in the restructuring process of troubled banks: long-term bonds that can be guaranteed or subordinated. These operations have backed mergers, acquisitions, purchases of branches, and transfers of assets and liabilities of restructuring banks. The fund has lent to 17 banks, for a total amount of $654.2 million of which $350 million is subordinated debt. In total, there were some 37 institutions involved in mergers and acquisitions.

Table 1 above also details the number of private financial institutions in Argentina over the period of convertibility and illustrates how deposit concentration has increased. In 1991, there were no fewer than 179 banks and other financial institutions. This number stood at 128 at the end of 1996, reflecting the considerable amount of restructuring that has already occurred in this sector in Argentina. Note that 20 banks accounted for 66 percent of the deposits in the private banking system in Argentina, whereas this figure had risen to 74 percent in 1996 reflecting increased concentration of deposits in the larger banks. Perhaps more telling, however, is the change in concentration at the other end of the distribution. In 1991, 20 percent of the deposits were accounted for by 138 of the smallest banks. By 1996, however, only 100 of the smaller institutions accounted for 20 percent of the deposits. There has then been a marked change in concentration within the small banks over this period.

The third instrument introduced in 1995 was a limited deposit insurance scheme. It is fully funded by banks paying a premium into an independent institution and creates no obligation on the part of the
central bank. The premium is proportional to the degree of risk attached to each bank.

Recently, the deposit insurance agency, Sedesa, has been granted powers to inject capital, to lend, or to grant a put option on certain assets of a restructuring bank, with the objective of minimizing costs. Its funds can be used only if the direct cost of an operation is lower than paying the deposit guarantee, if the license of the bank to operate is to be revoked.

Since the start of this new role, Sedesa has been involved in just one case: it granted a put option to a solvent bank that was acquiring a set of assets and liabilities of a troubled institution. The nominal value of the assets was $74 million. This put has a lower potential cost for Sedesa than paying the deposit guarantee if the license had been revoked. Furthermore, it provided the right incentives to the acquiring bank to value as accurately as possible the assets of the troubled bank.

It should be emphasized that a guiding principle of Argentine policies, each time that public funds have been directly or indirectly committed in the restructuring of a troubled bank, is to minimize potential losses. The procedure has been that any offer to acquire a bank requiring assistance from the Capitalization Fiduciary Fund or Sedesa has to be subject to a bidding process, in which both national and international banks are granted the chance to improve on the initial bids. In addition, careful evaluations are made of the acquiring bank’s soundness to ensure that the new shareholders would not use the assistance to embark on a business that could end badly. In this sense, there was a clear consciousness on the part of the authorities to heal the banking system rather than create potential future problems.

**Similarities Between the Two Processes**

There are striking similarities between the Czech and Argentine restructuring processes. Both were conducted in the middle of a larger restructuring process, which included convertibility, privatization, deregulation, and the opening of the economy and the banking sector to competition. The structural changes in the economy led to a rapid growth of the financial system. In Argentina, the financial system more than quadrupled in both countries in relative size in just four years, from 5 percent to 20 percent of GDP.

These changes implied a considerable degree of uncertainty with respect to the final set of relative prices, and it is inevitable that lending to the private sector in that environment would entail some mistakes. Those mistakes were even larger owing to the lack of good
information and shortages of good credit officers; in the Czech case, the large privatization effort and the appearance of new firms were especially to blame, while in Argentina hyperinflation made past experience almost worthless.

The need to establish prudential regulations and to rebuild bank supervision is another similarity between the two countries. In the Czech Republic, a regulatory body for banking supervision was established in 1991; in Argentina, the Superintendency of Banks and the related prudential regulations were subject to a general overhaul at that time. The experience with the restructuring of the public banks was very similar, in the sense that the nonperforming loans had to be set aside and assumed by the central or provincial government, and the performing loans had to be transferred to a new bank to be privatized or to an existing private bank.

**Restructuring: A Continuous Process**

I agree with Tošovský that restructuring is not a once-and-for-all action, especially in this fast-changing world. In particular, financial sector restructuring is an ongoing process. Furthermore, it is not a process dictated or even driven by the authorities, but driven by the market and dependent on technological advances and changes in the demand for different and ever-more sophisticated financial services. Inevitably in such processes there are winners and losers.

What is needed, on the part of authorities, is to build institutions that can reduce banking problems and mitigate their cost when they occur. A set of good prudential regulations and a strong supervisory system are essential institutions to prevent problems, and a limited, privately funded, and risk-related system of deposit guarantees, together with some mechanism for providing capital to help in the process of restructuring, are institutions that may help to solve any problems that occur.

In sum, Argentina and the Czech Republic most differ in their respective starting points: their market environments, the depths of development of their private sector banking, the existence of know-how and human capital in their banking sectors, and the presence of well-designed regulatory frameworks and supervisory bodies to minimize moral hazard problems. In all of these areas, Argentina had an advantage. Nonetheless, there is a shared concern by both countries of the need to pursue all possible avenues to minimize the cost of bank restructuring to the government and depositors, and the need for careful monitoring to avoid potential fiscal costs in the future.
Josef Tošovský has given a very interesting and comprehensive picture of the issues of bank restructuring in a transition economy. Although the Czech case is not necessarily representative of transition—as it is usually considered among the best situated of the transition economies—the paper covers some important ground. More specifically, it is sometimes argued that the Czechs have done “everything right,” and their case deserves special attention; this is a special stimulus for discussion.

My discussion will concentrate on three main subjects. First, having in mind my comparative advantage in macroeconomics, I would like to recall the necessary conditions for bank restructuring. Second, in an issue that touches on political economy, I will address why, in spite of repeated statements on the need of speedy action, bank restructuring is often delayed or neglected. Third, I switch to a topic in industrial organization: can one define an optimal banking industry structure? The need for a numeraire, a standard against which to compare the number of banks, seems obvious for taking adequate policy measures.

**Necessity of Price Stability**

It seems clear that in the area of macroeconomic policy there is a broad consensus on the issue of inflation. It is usually maintained that low inflation is a necessary condition not only for higher and sustained growth but also for effective bank restructuring. After achieving a relatively low inflation, however, complacency can set in, and stability sometimes slips down the list of economic priorities. This might be dangerous in the long run. One often hears: “Why worry now? Wait for inflation to reappear and then deal with it.” Yet inflation must be dealt with before it appears, and not be “shot at” only after it has been spotted. Once inflation is revived, it is usually too late to avoid significant inflationary costs for the economy.

It is worth repeating as well that without stability efficient financial intermediation through banks is not possible. It is equally true that stability per se is not enough to deliver increasing welfare (growth and equity), and there is an obvious need to link macroeconomic policies with structural measures to achieve sustainable economic growth.
The Czech Republic is still in transition, although the focus of discussion has moved from macroeconomic issues (stability), which were the primary problem at the beginning of transition, to structural ones, such as micro-oriented questions (primarily banking and enterprise reform). But both cases deal with conditions for sustained and high economic growth (prosperity) and income distribution. Without economic growth, policymakers are basically playing a constant-sum game, or something that was usually called "redistribution" under socialism. Therefore, inflation fighting should be always on the minds of central bankers.

**Bank Rehabilitation in Transition**

Joseph Schumpeter once said that the only important institution in capitalism is the bank. In other words, banks should collect savings in the economy and be responsible for the efficient allocation of resources. This applies even more to transition economies. But, most transition economies are faced with both shallow and narrow financial markets. With underdeveloped capital markets and relatively high country risks, raising equity capital either on the stock exchange or through direct foreign investments seems more difficult than in developed market economies. Thus, enterprises willing to grow must rely on self-financing or bank lending. Banks play a very important role in the overall financial system in almost all transition countries.

As discussed with regard to Poland (see Chapter 14) and the Czech Republic, banking in transition countries needs restructuring. After institutional changes (moving from monobanking to multitier systems), banks in transition economies need, first, to increase the efficiency of resource allocation and, second, to encourage national saving (which is a separate subject not be dealt with here).

In almost all transition economies, banks cannot fully play their role of efficient allocators of economic resources. Starting in most cases from monobanking, old (usually state-controlled) banks are not prepared to measure risks adequately, and they are overstaffed and burdened with bad loans. Their decisionmaking is often influenced more by political considerations and less by sound banking principles. New, emerging private banks are usually so small that their influence is not

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enough to create a competitive banking environment. Thorough rehabilitation and restructuring of banks are essential to create sound banks. Proper allocation of resources will consequently increase macroeconomic efficiency. Therefore, after stabilizing the economy, bank rehabilitation and restructuring (linked with enterprise restructuring) seem to be the highest priorities for policymakers.

Those issues are well known and analyzed, and a lot of significant work exists on this subject. In other words, the normative approach to the needs of a well-functioning banking system in a transition economy has received significant attention in the professional literature. But, the main questions, like why the best policies are or are not chosen, when they are chosen, and why they are or are not implemented, have been much less analyzed.

The writings in this volume repeatedly stress that if banking problems appear it is essential to act quickly and decisively. In reality, bank rehabilitation (in transition) proves to be a very slow process, which, if neglected, may lead to serious banking sector problems and ultimately a banking crisis. For example, it was known that Albania and Bulgaria were heading toward crisis, but nothing was done to prevent it. Needless to say, banking sector problems are not restricted to transition economies. Since 1980, about 130 countries have experienced significant banking sector problems, while 36 have had banking crisis.² So, the real question is: Why is it difficult to rehabilitate banks, preferably before a full-blown banking crisis with high costs erupts, if this process is so important?

The usual answer is that bank rehabilitation (including isolating bad loans, as well as recapitalizing and restructuring banks) is very costly, and budgetary resources are scarce. Double-digit numbers on the ratio of costs to GDP are not rare. Yet the “high cost” argument is only partially true, given that, among other things, bank rehabilitation appears to be a redistribution problem. With budgetary expenditures of about 50 percent of GDP, as is the case in most transition economies, devoting a couple of percentage points to bank rehabilitation does not look like an unattainable objective. If one realizes this redistributional dimension, then the argument of lack of finance is no longer valid. It is just an issue of realizing the importance of this process. Deciding which budgetary expenditures must be lowered and which population should be “hurt” today—deciding how to handle the intertemporal distribution of restructuring costs, such as whether the

present generation or future generations should pay for this effort and to what extent—falls into the domain of public choice and not of raising additional budgetary revenues for bank rehabilitation.

It is essential that bank rehabilitation and recapitalization be done in a transparent way: through the employment of budgetary resources (taxes) with clearly stated rules and realistic estimates of costs of this “rescue operation.” Financing through an inflation tax—by monetizing the budgetary deficit—should be avoided at any cost.

If financing is not a problem (at least not the main one), why then is bank rehabilitation postponed? Without clear political support, banking sector reforms (including rehabilitation) can hardly be effected. Note that any budgetary allocation of public resources cannot be achieved without the political approval of the parliament. Therefore, political and economic goals may diverge. Ultimately good economic policy is good politics. But, in the short run, their goals can conflict. Therefore, it is essential that the political economy of policymaking be well understood and that the goals and consequences of bank rehabilitation be well explained to politicians and the general public. The question is why are optimal decisions in bank rehabilitation not taken?

Bank rehabilitation is usually faced with significant resistance from various constituencies. Resolving systemic banking problems is a practical exercise in multiple enterprise restructuring. This again means substantial redistribution, with some interest groups worse off after the restructuring. Micro-reforms involve real names and social security numbers: they hurt very real people. Besides, a large number of qualified people are required to work on rehabilitation and restructuring plans for banks, and in transition economies experienced financial experts are usually in short supply. Therefore, it might be argued that in bank rehabilitation in transition economies the lack of human capital represents a much bigger problem than the lack of financial resources.

This is not typically the case with macroeconomic stabilization programs, which are more glamorous (occasionally being announced on TV or trumpeted by a dramatic drop in inflation) and can be planned and implemented by few specialists and affect the society as a whole (usually by increasing their welfare).

In transition economies, banks need restructuring because their past loans were granted mostly on the basis of political criteria (without

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adequate measurement of the risks involved) and not on the basis of sound banking practices; otherwise their assets would not have turned sour at such a high rate. These banks were usually state controlled and overstaffed, and politicians could easily influence the decision-making process. Banks were managed by people closely linked to the political elite and were expected to fulfill certain duties ("support the economy") and not necessarily to protect bank liabilities (deposits and capital). Therefore, resistance to bank rehabilitation may come from several quarters:

- Politicians often strongly resist thorough bank rehabilitation. Under central planning, bank managers were appointed by the political elite, not regular shareholders whose interest would have been profit maximization. If this political elite has not withdrawn from the scene (or has reemerged as is the case in some transition countries), it may be difficult to change the management of a bank during the process of rehabilitation. Politicians are aware that they will have much less power if new management, over which they have little influence, is appointed. Friendly management can grant loans for wages to workers on strike, finance local sports teams, support certain newspapers, and so forth.

- Bank managers have clear vested interests within the existing power structure (the very structure that caused banking problems). High wages and political influence are strong enough motives for their active opposition to any change that implies the loss of their position. They may go along with rehabilitation plans as long as they themselves bear no consequences on the account of previous behavior. However, having the same management in supposedly rehabilitated banks entails a clear moral hazard problem.

- Personnel of a bank resist rehabilitation and restructuring because these processes create uncertainty and engender a fear of layoffs; most of the old banks are overstaffed and need serious downsizing.

- State-controlled enterprises more often than not based their existence on soft loans from state-controlled banks. It was common that the largest debtors of a bank were sitting on that bank's supervisory board, creating interlocking relationships and conflicts of interest. Those firms would rather engage their resources in rent-seeking activities to retain the status quo than do the arduous task of restructuring a company to be profitable in a competitive environment. Thus, the management of those enterprises as well as their employees can be expected to resist bank rehabilitation.

In short, use of sound banking principles in decision making would significantly hurt large groups of people. Therefore, one should
expect various interest groups (managers of banks, employees of banks, enterprises whose existence depends on soft loans, groups of politicians, and so on) to offer strong resistance to banking reform. Private interests are put before social goals. Thus, obstacles to bank rehabilitation are again more in the domain of political economy (power struggle and redistribution) and much less in that of strict financing issues.

If banks are not rehabilitated, if they continue to extend loans based on political criteria, in short if insolvent banks remain in the system, severe banking problems or even banking crises will emerge sooner or later. The costs of banking problems are frequently huge, sometimes in double-digit percentage points of GDP over a couple of years (like in the cases of Chile, Hungary, or the Czech Republic), and can severely affect the overall fiscal position. That is why it is extremely important to reach a nationwide political consensus on the necessity of bank restructuring before a crisis erupts. Without this consensus, bank rehabilitation cannot proceed.

Even if this consensus is reached, the problems are not eliminated. Governments seldom act quickly and decisively, and once political decisions have been taken their full implementation can be postponed for various reasons: lobbying to overturn the decision, forthcoming political elections and fear of rehabilitation costs, simple corruption, obstruction from various levels of bureaucracy, and lack of qualified staff to implement radical banking sector reforms, among others. Two results may arise from these impediments:

- Delay: The government realizes and announces bank rehabilitation but does not take immediate measures (owing to the lack of human capital, funds—because of improper budgetary planning—or broad political support). Implementation is as important as taking the optimal decision.
- Dilution: Measures undertaken to rehabilitate banks are not radical enough. In this case, bank rehabilitation has to be repeated again and again.

If delay or dilution happens, future bank rehabilitation will be needed and it may be more difficult and more costly. Arguably, the only thing worse for the economy than doing nothing about warranted bank rehabilitation (and thus increasing the risk of the collapse of the financial system) is improper rehabilitation, because the latter substantially decreases the credibility of the authorities and increases the costs of future bank rehabilitation.

In that regard bank privatization is the area where transition economies should pay additional attention. Starting from monobanking, then moving to state-owned two-tier systems, transition
economies need to privatize their banking industries. Private ownership definitely improves efficiency, and without privatization it is difficult to change the decision-making process in banks.

To summarize, commercial banks play a significant role in the transition process. But to fulfill this demanding task, the banking sector must be restructured and depoliticized. In the long run, privatization of banks, increasing competition in the banking industry, and integration into world financial markets are the best remedies for ailing banking sectors in transition economies, but the state must institute immediate action. Financial stability (in the form of a sound banking sector) is a public good, and the state must work to promote it.

One big lesson from the existing transition experience is that transition is not a short-lived, one-shot effort, but a long-standing battle, a marathon for which a country has to be well prepared both psychologically and physically. As transition has no alternatives (at least no reasonable ones), it is best to face this truth. Much has been achieved, but formidable obstacles still lie ahead. It is therefore important to remember that economic reforms will be rewarded in the future with the increased well-being of the population at large in the increasingly global world economy.

Can One Define Optimal Banking Structure?

Finally, I would like to say a few words about the normative approach to bank rehabilitation. By end-December 1996, Croatia had licensed 60 commercial banks (or Deposit Money Banks). The usual reaction to this fact is, “This is too big a number. You have to close down some banks and strengthen licensing procedure. Why don’t you consolidate?” This situation raises a couple of questions.

Are there scale economies in the banking industry? Most probably there are, especially in data processing technologies. But, if so, what is the slope of the long-run average cost curve, or where is the minimum of the cost function (meaning equality of marginal and average costs)?

An additional unknown relates to the larger theme of bank soundness. On one hand, if Croatia truly has too many banks, not all of them can be sound. Thus, too large a number would imply a potential banking crisis and an unsound banking industry. That automatically puts all the mentioned goals (efficient intermediation and sustained growth) in jeopardy. Further, if we analyze the banking industry from the viewpoint of contestability theory, then the number of banks does not say anything about the competitiveness of the market. But anoth-
er problem appears: How contestable is the banking industry? Can we define sunk costs for banks? Does potential entry from big foreign banks force domestic banks to act competitively?

Under the traditional approach, one could infer that sunk costs are relatively high, and thus the market is not contestable (high exit costs). But the development of new technologies might change this view. Assume that in a monopolistic domestic market there are barriers to entry for foreign banks. According to the American Bankers Association, the cost per transaction in a banking branch averages $1.07, through an automated teller machine (ATM) $0.27, and through the Internet only $0.01, or a hundred times less than through the branch. In an increasingly interconnected world, with wider access to computers (network stations) and the Internet, it is not unimaginable to manage one’s account in New York from Prague. Even cash transactions can be easily handled via e-money or ATM. Of course, this is only an additional speculation, but, definitely, cost curves for banks are not only very difficult to measure but also shifting dynamically.

Finally, if scale economies are strong, a couple of financial giants are likely to dominate the field—in which case even five banks for countries like Croatia or the Czech Republic might be too many. For example, a recently announced privatization of Creditanstalt by BankAustria will create a bank with the same number of employees as in the overall Croatian banking industry (about 18,000), but the assets of the new bank will be ten times as large. Does that mean that Croatian banks (compared with banks in Central Europe) are too small? Niche markets might be a counterargument, but again complexities arise when one wants to have operational rules of thumb. As such, this remains an area where a lot of work should be done.

### Importance of Public Support for Bank Rehabilitation

Lastly, having in mind all the obstacles to bank rehabilitation, it is important to keep in mind public support for this process. Policymakers—those who restructure banks—must constantly educate both the population and politicians. They have to make sure that goals are well defined. The public’s high expectations, especially in transition economies, must be dealt with, or else those carrying out the needed reforms, the costs of which have to be borne in the present for the sake of future benefits, might be ousted from office. The public and politicians have displayed a surprisingly poor knowledge of modern economic principles. Thus policymakers must educate on a
daily basis. What exactly should they say? Expect only hardship? Or prepare for immediate benefits? Both politicians and economists will be expected to supply adequate answers to those questions.

This is not only the case in transition economies. An American economist described his work in the following way: "It's mostly a matter of getting rid of bad ideas but, it's like flushing cockroaches down a toilet—sooner or later they just come back." 4

It seems clear that transition economies have no alternative but to pursue sound, credible, transparent, and prudent long-term policies. The banking sector plays a crucial role in those policies. "Right" economic policies may not always be popular with voters or politicians, but the marginal rate of substitution for the alternative scenario is such that no professional economist should accept it. It is our duty to send this message urbi et orbi. The moral would be: Never neglect public opinion, but sound economic principles in both macro and microreforms must be respected and never compromised in the long term. There is no substitute for market discipline.

As Eddie Gorse so eloquently showed (see Chapter 5), banking is still very special. Prudence, honesty, and adequate regulation should be the guiding principles in protection of the public interest. In transition economies (and others as well), it seems realistic to expect problems in the financial system. Thus, banking failure can be (relatively) easily predicted. If a bank fails, the main problem is that—because of asymmetric information—it is not possible to say whether "an honest banker has honestly failed, or a dishonest banker has dishonestly failed." 5 Perhaps this shall continue to be a bigger secret than Swiss bank accounts.

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Mr. Iltchev noted that in Bulgaria, in a number of cases, the initial capital for formation of new private banks was raised through credits advanced by large state banks to entrepreneurs. This process had been ultimately unhealthy for the banking sector because some of the newly established banks had engaged in significant connected lending. He asked whether the Czech Republic had experienced the same phenomenon, and if not, how the initial capital for the newly formed private banks had been raised. Mr. Tošovský responded that the explosion of applications for bank licenses in the Czech Republic had caused the authorities to raise the minimum capital requirement from less than $2 million in 1990 to $17 million now. A number of companies and municipalities had pooled their funds to raise the necessary capital, and individuals with small deposits had become minority shareholders. Only in a few cases was capital raised on borrowed money from other banks. In these cases, shareholders obtained credit from their own banks to repay their loans, which resulted in a significant increase in insider lending. By the time the problems became apparent, it was already too late. The Central Bank, however, had placed large penalties on the banks not observing insider lending restrictions and, in some cases, had replaced the management.

Mr. Iltchev asked about the relationship between the Central Bank and the courts in the Czech Republic. He noted that in Bulgaria the courts had been second guessing the decisions of the central bank. In fact, as of that date, none of the banks that the central bank had declared insolvent was closed. Mr. Tošovský answered that nine banks were closed in the first half of 1995 with the cooperation of the courts. However, several prior steps had been taken. First, amendments to the Banking Act had increased the central bank’s powers in changing the capital of a bank in cases where reserves were not adequate to cover the size of the nonperforming loans. Second, the central bank had engaged in intensive communication with judges to quicken the process of liquidation. Third, the central bank had organized seminars to provide technical assistance to judges and prosecutors. This was the result of a problem with one small bank. Judges, in that case, had blocked the bank’s clearing system account. Had this been done in case of a large bank, the results would have been disastrous for the payment system as a whole.

In response to a question regarding the structure of ownership of the four largest commercial banks, Mr. Tošovský noted that the government, through the National Property Fund (NPF), maintained 33–45
percent of these banks' shares, while the rest of the shares were dis- 
bursed to the public through the voucher privatization program. As a 
result of the restructuring process, these banks were now owned by 
large investment funds, companies, individual shareholders, and for-

eign investors. The Government had decided to fully privatize one 
bank; this project will be finalized in the next six months. The 
Government was seeking foreign partners for privatizing this bank to 
avoid raising capital from domestic banks, and also to avoid problems 
of nontransparency.

In response to a question regarding hyperinflation in Argentina, Mr. 
Pou stated that hyperinflation was politically a favorable event in the 
sense that, finally, people understood that it was important to provide 
political support to more prudent approaches to monetary matters. In 
Argentina, hyperinflation had significantly reduced the role of both 
the financial system and the capital markets. The financial sector was 
reduced from 40 percent of GDP in 1940 to only 5 percent by the early 
1990s because of a shift in financial assets abroad. Given the return of 
confidence, people would likely be willing to trust the domestic finan-
cial system and bring the funds back to the country. Hyperinflation 
had been the best way to end the 40-year of inflation in Argentina by 
ultimately enforcing a rigid convertibility system.

Mr. Marino asked about the regulatory framework in Croatia. Mr. Škreb replied that, when the National Bank was granted the func-
tion of issuing licences in the early 1990s, there had been only a cou-
ple of banks functioning in Croatia. To change this oligopolistic 
environment and reduce the spread between lending and deposit rates, 
the Government had decided to increase the presence of foreign 
banks. However, no clear targets were set regarding the number of 
banks that would be sought. One proposed measure was to increase 
the minimum equity capital to prevent the proliferation of unhealthy 
banks. In fact, Slovenia increased the minimum capital for banks with 
a full international license to $30 million, despite complaints by some 
foreign banks regarding low levels of return and the underdeveloped 
financial markets.
Part X

Conclusions
We have now come to the end of the Seventh Central Banking Seminar. In this wrap-up session, I would like to summarize the main themes that have surfaced and to draw a few conclusions that follow from them. But first, I would like to thank all of you for participating in this seminar. As speakers, discussants, and most important, as participants raising probing questions, providing insightful comments, and engaging in informal discussions, all of you have added greatly to the richness and depth of these proceedings. By sharing experiences in your own countries, it will be possible to hone our thinking into practical solutions for the benefit of all.

At the beginning of the seminar, I prefaced my remarks by referring to the closing remarks made at the end of the Sixth Central Banking Seminar. That seminar centered on monetary policy frameworks, but the discussion pointed to a need for further investigation of the role of the monetary authority in promoting sound and efficient financial markets. Experience in the intervening period has proved this conclusion quite appropriate—in some ways unfortunately so, in view of the events that took place soon afterward. There have been a number of well-publicized banking problems that ranged from the crisis in Mexico to the well-contained Barings failure that have demanded our attention. At the same time, much progress has been made toward price stability, thus allowing policymakers to shift some attention toward soundness issues in a natural progression. Since the last seminar, we have gained considerable practical experience and also made progress on the theoretical front; this seminar has offered us the opportunity to discuss what we have learned and to share ideas on
how to face new challenges stemming from globalization and technological innovation. Against this background, four basic themes emerged at the seminar discussions:

- the interaction of banking soundness with monetary policy;
- the boundary between the public and the private sectors and the risk of moral hazard;
- harmonization of banking supervision practices and prudential standards and procedures; and
- the consequences of technological innovation and advances.

**Bank Soundness and Monetary Policy**

Bank soundness could once have been described as the “neglected dimension” of monetary management, but as this seminar has demonstrated, this description no longer applies. Clearly one factor behind the increased attention devoted to this subject is the high incidence of banking sector problems in recent years. But I would like to think more positively, and I believe that another factor is the growing consensus on the importance of the price stability objective of monetary policy and the considerable progress that has been made toward achieving it. It is only natural that when one problem appears to be under control, more time can be devoted to other issues—in this case, bank soundness.

During the seminar, Tommaso Padoa-Schioppa placed this shift in emphasis into its proper historical perspective (see Chapter 6). Abstracting from other reasons that governments possibly had in mind and that conform to public choice theory motivations, central banks were first organized to provide for an efficient system of payments and then to ensure the safety of the banking sector. In fact, it is only in this century that they were given the mandate of guardians of price stability, which speaks forcefully about the quality of price performance of this most recent period of history. As has often been pointed out, the twentieth century provides a historically poor example of commitment to, and performance in terms of, price stability.1 Yet, as I have just noted, the record of inflation control has markedly improved in recent years. In this context, the increasing recognition of

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1See, for example, International Monetary Fund, *World Economic Outlook: A Survey by the Staff of the International Monetary Fund* (Washington: International Monetary Fund, October 1996), where experience with the process of inflation is amply documented in a long-term context.
financial system soundness as a policy objective represents a return to the original purposes of central banks.

Another factor contributing to this renewed interest is the two-way relationship between price stability and bank soundness as objectives of monetary management. As covered in depth in Bank Soundness and Macroeconomic Policy, an unbalanced monetary environment can fuel banking instability because banking activity in inflationary environments is not very conducive to efficiency, and inefficient banks tend to be unsound. And conversely, a sound banking system is necessary for an efficient transmission of monetary policy signals to the economy.

The Boundaries Between the Public and Private Sectors

Delineating the boundaries between the public and private sectors in policy design and implementation will likely be one of the most critical questions facing economic policymakers in the years ahead. The area of bank soundness is no exception. During the seminar, a consensus emerged that market forces have a key role in a modern framework for bank soundness. Viewpoints differed, however, on where the balance should lie between the three pillars of banking sector stability—market discipline, internal governance, and official prudential regulation and supervision. Some participants favored giving the largest weight to market forces; others, though willing to rely heavily on market discipline, still believed that the supervisory authorities—whether at central bank or elsewhere—should retain an important share of responsibility for the protection of banking system soundness through the exercise of official oversight. In this context, Donald Brash explained that while New Zealand relies primarily on market discipline, the new approach to banking supervision should not be interpreted to mean that the Reserve Bank is not concerned about conditions in the banking system (see Chapter 16). A measure of official oversight is necessary, and possibly the central point made on this front was that, as suggested by Tommaso Padoa-Schioppa, it should complement market forces (see Chapter 6).

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There is always a tendency toward overinvolvement by official bodies and thus a risk of moral hazard. On this topic, I firmly agree with Eddie George when he pointed out that there had been no evidence of systemic problems or repercussions in the Barings episode, and thus the best course for the Bank of England was to see that the Barings ownership and management were responsible for the consequences of their decisions (see Chapter 11). I would add that any other course of action would have risked moral hazard, not only in the United Kingdom, but elsewhere.

Essential to all three pillars of the above framework (market forces, internal bank governance, and official oversight) is the timely availability of good data and information. They are essential for bank executives to make loans and manage their portfolios, that is, for proper internal bank control as well as for both market participants and official supervisors to make appropriate assessments of these portfolios and the resulting financial position of the bank. There was, of course, agreement on this general point, and the main area of discussion among the participants in this area was on the relative merits of quantitative versus qualitative standards, both of which were seen as important. It was felt that balance sheet analysis, typically quantitative in nature, would need to be supplemented by assessments of a bank management's ability to evaluate risk, clearly a qualitative exercise involving a large measure of judgment.

Quantitative factors have a certain appeal because of their apparent objectivity and concreteness as well as because of the seeming ease with which standard quantitative measures can be applied across countries. This is certainly true, but benchmarks such as the capital adequacy ratio (whether measured to include one or several types of risk) must be underpinned by a well-developed infrastructure, for example, accounting, loan valuation, classification, provisioning, and legal standards. These elements are not always in place in many countries. In addition, quantitative factors are not forward-looking and are not easily adapted to new situations. They focus on what happened yesterday, and as Donald Brash observed, they are becoming increasingly obsolete in the current fast-changing world where what matters most is what will happen tomorrow (see Chapter 16).

Wolfgang Artopoeus stressed that qualitative assessment is vital in bank supervision (see Chapter 17). I would add that supervisors and regulators will need to judge not only whether an individual bank is vulnerable, but also whether an ongoing problem exhibits potential systemic risk. Judgment will be necessary in such situations to determine how much of the problem is the responsibility of the public sector and how much lies with private agents. This will entail, inter alia,
assessing how the resulting costs are to be shared between the government and the private sector, an assessment the quality of which will be critical to contain moral hazard. These conclusions on the importance of qualitative assessment call for the exercise of judgment, not only by those charged with official oversight, but also by economic policymakers. Such judgment will inevitably entail a measure of discretion, which of course would be quite compatible with the adoption and implementation of a rule-based prudential and supervisory regime for bank soundness.

Harmonization

Two basic dimensions of harmonization were identified at the seminar: that of national standards across borders and within national settings; and that of the rules applied to banks and those that are applicable to other financial institutions increasingly engaged in banking activities, such as finance and insurance companies, as well as security firms.

The liberalization and globalization of financial activities have made inevitable the need to coordinate the supervisory efforts of individual countries at the international level. Indeed, it was the prospect of serious banking crises that could place cross-border financial stability at risk that led to the establishment of the Basle Committee on Banking Supervision in 1974 by the Governors of the Group of Ten (G-10) industrial countries. The Basle Committee is a clear example of an attempt to address issues posed by the international dimension of bank supervision. Much has been achieved by this Committee since then, as illustrated by the widespread observance of norms such as the Basle Capital Accord or the Basle Concordat to which we have often referred in our discussions. Their effectiveness will be enhanced by the efforts underway to develop a broad supervisory framework that can be adopted or adapted by countries beyond the original group of industrial economies. A common set of standards will be of clear benefit to international investors, although care must be exercised in their implementation in settings where the supporting legal and accounting infrastructure is lacking.  

4Soon after the seminar, the Basle Committee issued its Core Principles for Effective Supervision (Basle, 1997), as well as a three-volume Compendium of Documents by the Basle Committee on Banking Supervision (Basle, April 1997), which gathered all the Basle Committee’s previously published papers regarding various aspects of banking supervision.
Harmonization of national rules and standards across financial institutions is also important now that these institutions are branching out into each other's business. Commercial banks are becoming increasingly involved in investment banking, securities trading, and life insurance activities that were once the province of those other financial institutions, while the latter are increasingly taking on activities previously undertaken only by banks—particularly deposit taking. As the traditional distinctions between banks and other financial intermediaries become increasingly blurred, the question arises of whether banks are still special and, from an operational point of view, whether they are still essential to the economy and therefore merit the continuing concern of central banks. We have heard Eddie George on the subject and his conclusion that banks remain special and therefore warrant special treatment, a view for which there was broad support (see Chapter 11). This said, though, there are open questions in this regard: for how long will banks remain special? And, if the trend toward further erosion of their distinct nature continues, how can the authorities best adapt the safety nets that currently protect the banking sector?

New Technologies

The issue of technological advance and its implications for the financial sector came up in a number of sessions. Its emergence as a major theme points to the importance of innovation and of its implications for prudential supervision and official oversight. In brief, the proliferation of new and sophisticated financial products, such as derivatives, and the growing complexity—geographically, technically, and institutionally—of business relationships in the financial industry make it critical for supervisors to update their knowledge and expertise on an ongoing basis. Unless they keep abreast of new technologies, the official oversight pillar of bank soundness will not be able to check excessive risk taking. In this connection, Federal Reserve Chairman Alan Greenspan recently said, "If it is technology that has imparted occasional stress to markets, technology can be employed to contain it."5 This is clearly true, but to ensure that this in effect occurs, we need to work hard to provide the resources and incentives for supervisors to keep up with developments in markets where changes are constant and rapid.

Role of the IMF

In the area of banking system soundness, the IMF's focus falls more on the prevention than on the correction of problems. Thus, from the IMF's perspective, a critical element of its work is how to ensure that the macroeconomic environment is conducive to sound banking—that is, to ensure that the macroeconomy does not contribute to bank difficulties. A second area of interest for the IMF is to foster the existence of an appropriate incentive structure, not only in the banking sector but in the economy at large. As far as the latter is concerned, these are issues that have been discussed with member countries ever since the beginning of the institution.

On the banking front, we have to add another element, the supervisory framework prevailing in the economy. Although the role of the IMF is not that of a bank supervisor or an auditor, there is a clear interaction between the banking sector, its soundness, and the effectiveness of monetary and macroeconomic policy. Therefore, it makes sense for the IMF to include these sectoral and microeconomic issues and their interaction with macroeconomic performance as part of its regular surveillance activities and consultations with member countries. In this context, it also makes sense for the IMF to contribute to the efforts that the international community is making to improve prudential supervision and banking practices by regularly disseminating to IMF members those that have proven their effectiveness by experiences in advanced systems. Important work in this area has been and is being done by the Basle Committee and in the European Union. As I noted previously, of particular relevance are the Basle Committee's efforts in conjunction with supervisors from emerging and other economies to broaden the guidelines for sound banking practices originally devised for the G-10 industrial countries and making them applicable to developing and transition countries. The IMF seeks to support the efforts of the Basle Committee, as well as the efforts made by national supervisors in their regional forums.

Final Observations

What lessons can be drawn from this seminar? The first is the interaction between the objective of price stability and the aim of banking soundness, which I believe does not pose the conflict of policy goals that is often brought up. Durable price stability cannot be pursued at the cost of a vulnerable banking sector, nor can the banking sector be strengthened by relaxing the commitment to price stability. The two objectives are mutually supporting and warrant being pursued together.
Policymakers have to think not only of what actions are needed to attain *price stability now*, but also of what it will take to maintain *price stability in the future*. Clearly, for monetary policy to be effective and efficient, a sound and competitive banking sector is required: sound money goes together with sound banking.

The second conclusion is that we must recognize and strengthen the trend toward market-friendly supervision. By market-friendly supervision I mean supervision that takes both account and advantage of market forces. This is not friendly supervision in the sense of forbearance with shortcomings in internal bank governance or in official oversight. On the contrary, it is supervision that buttresses market forces and allows them to exercise discipline on banks and their owners and managers. A market-based approach to bank soundness encompasses the three essential pillars, as noted previously—internal bank governance, official oversight, and market discipline. All three are necessary, and they must be allowed to exert their respective influences: bank governance to ensure efficiency, official oversight to safeguard systemic stability, and market discipline to contain moral hazard.
Part XI

Luncheon Addresses
Good afternoon. It is a pleasure to be here today to discuss a topic that has become more important in a world of global financial markets—the matter of coordinating and harmonizing our national regulatory systems. On the conference agenda, the topic was phrased as a question, that is, whether we should harmonize our systems. In a sense, the question is somewhat moot—the globalization of the markets and the breadth of international conglomerate financial institutions are forcing us in that direction. But I would quickly add that one definition of “harmony” is “a pleasing combination of elements.” We can sing compatible and pleasant-sounding notes, without singing the same note. It is in that sense that I believe harmonization of our regulatory systems will develop.

In my comments this afternoon, I will mention some of the efforts under way in which the United States is working with other countries to develop more consistent supervisory and regulatory systems, particularly for large financial conglomerates. That experience may provide others with ideas about how they might pursue similar efforts, either on a bilateral or multilateral basis. Perhaps more importantly, though, I will also offer my views on where our interests are likely to be most similar and why and how regulators around the world are likely to continue working toward compatible or “harmonized” systems. Let me begin with those thoughts.
Importance of Compatible Regulatory Regimes

One cannot have dealt with U.S. and world financial markets during the past few decades without being thoroughly impressed with the rapid pace of change and the manner in which technology and financial innovation have affected market practice. The improvements in communications and transportation and, importantly, the gains from technology and the miniaturization of the goods we produce have fueled a growing volume of international trade. Our financial institutions, in turn, have sought constantly to find more effective and efficient ways to facilitate and finance these activities, and at the same time manage the related risks. As a result, we have seen dramatic growth in financial derivatives, strong support within the industry for new clearinghouses and netting procedures to reduce counterparty credit risk, a growing need to clarify our laws and regulations regarding financial contracts, and financial markets that are far more closely linked today than they were even a decade ago.

In the area of bank regulation and supervision, substantial progress has been made in developing capital standards that help to ensure the financial strength of internationally active banks and that promote greater competition. Simply put, firms in need of international financial services will utilize domestic or foreign financial institutions to the extent their prices are competitive and their financial stability can be assured. As a result, regulators are recognizing the need to harmonize laws and regulations in order to promote economic growth and to deal with important and oftentimes increasingly complex matters that are of common interest to us all.

We are recognizing also the need to enhance financial systems—including supervision and regulation—in the emerging market economies, primarily for the sake of those economies, themselves, but also because of their increasing importance in international financial markets. Indeed, G-7 leaders at their summit meeting in Lyon last summer identified this goal as an important element in efforts to promote international financial stability.

That we need some level of conformity seems, I'm sure, quite clear. Otherwise, the inconsistency and incompatibility of rules and regulations across countries may make it difficult, if not impossible, for some firms to engage in global business activities. Such barriers are detrimental to the efficiency of international trade and finance, generally.

The difficulty, of course, is the precise nature and level of conformity that is necessary to maintain an efficient and equitable world financial system. Here I submit that it may be less important that we standardize particular banking laws and regulations, than it is for us to
pursue similar goals, as we independently develop our domestic regulation and supervisory structures. Specifically, if we apply market-based incentives in our regulatory structures, that, alone, should keep our rules sufficiently similar and compatible.

We must also recognize that technology and financial innovation are permitting banks today to become ever-more adept at avoiding regulatory barriers and other restrictions that artificially constrain their activities. Moreover, to the extent they are effective, such restrictions can work against local institutions, businesses, or consumers by making banks less competitive internationally or by withholding from their customers the benefits that competition can bring. Regulatory regimes are likely to be more effective in the long run for financial institutions and for domestic economic growth if they are market-compatible.

**Areas of Common Interests**

In our roles as central bankers, bank supervisors, and regulators, what are the areas of greatest common interest to us for which we should develop compatible rules and regulations? To keep it simple, let me suggest two. First, maintaining a healthy, responsive, and financially strong banking and financial system will facilitate the growing needs of our domestic economies. Second, building and maintain an adequate legal and regulatory structure will permit our institutions to compete safely on an equal and nondiscriminatory basis, both domestically and abroad. These thoughts may not sound original; they’re not. They are essentially the two reasons the Basle Committee on Supervision exists, and they underpin most other international efforts to coordinate banking issues.

When I consider the past successes in coordinating international bank supervisory or regulatory policies, I think first of the Bank for International Settlements and the work of the supervisors’ committee. After all, the BIS has been the principal forum for developing international supervisory standards for banks in industrialized countries and, by their voluntary adoption, for banks and bank supervisors in other countries throughout the world. Bilateral discussions can also serve useful functions either where particular issues are of concern or as a basis for subsequent broader dissemination.

Nearly a decade ago, such bilateral and—through the BIS—multilateral efforts produced the risk-based capital standard, known as the Basle Accord. Since then, we have produced numerous other policy statements dealing with sound risk management practices for banks. These statements related first to derivatives activities and most recent-
ly involve the management of interest rate risk. Dr. Padoa-Schioppa, chairman of the supervisors' committee, has probably already discussed these initiatives with you.

One of the Committee's most recent accomplishments, however, is the development of new capital standards for market risk in trading activities. That standard is notable because it reflects a new approach for constructing international banking standards. In particular, the internal models approach contained within that standard builds on leading industry practices and helps supervisors to promote risk management in banks.

Promoting sound risk management is a goal we should all pursue more aggressively in considering new banking policies and regulations. It is also the type of approach I had in mind when I said earlier that our laws and regulations should be compatible with underlying economics and market demands. To the extent we can continue building on "best" or sound banking practices in designing our rules and regulations, we will be working toward a common end. As we work together identifying those practices and deciding how to apply them as supervisory or regulatory standards, we will also be strengthening relations among ourselves that can prove invaluable in times of market stress.

Not to over-use the example of the market risk standard, but it illustrates another useful point, as well. Reliance on a bank's own risk measurement and modeling process in determining regulatory capital standards also acknowledges that no single or specific technique is best for everyone. Each institution should tailor its risk measurement and management process to its own needs. While adhering to basic principles, each institution must determine for itself the proper incentives and techniques for managing its affairs. No two banks or banking markets are identical in their operations, structure, or historical development. Permitting a range of compatible responses to similar situations encourages experimentation, innovation, and growth. Accommodating a certain level of flexibility is necessary for banks, and it is necessary for regulators, too.

Indeed, flexibility may be even more important for non-G-10 countries than it is for those of us with large, developed financial systems because of the greater range of capital market and economic infrastructures among developing countries. Materially different situations typically require different solutions. Accommodating differences, though, does not reduce the need for minimum regulatory or supervisory standards based upon well-known principles of sound banking.

It is up to supervisors and, if necessary, legislators to craft regulations and laws consistent with internationally recognized standards, but accommodative to local customs and economic needs.
In developing sufficiently flexible, market-compatible regulations, I believe we should rely as much as prudently possible on market discipline and on banks' internal incentives to perform well. This approach requires that the public have information about the risk exposures of banks and about their procedures for managing those risks. As regulators, we can encourage this process by requiring or prodding banks to disclose information to the markets that is both relevant and comparable among institutions.

Whether such disclosures are imposed by official regulations or evolve through more subtle efforts, supervisors can help guide the process by considering carefully the kinds of information the private sector needs and that banks use—or should use—to manage risk. Even in the United States, where surveys show disclosure is relatively good, supervisors make available to the public data collected on Call Reports.

In countries where disclosure practices are minimal at best, bank regulators may be able to perform a particularly important role by publicly disclosing some, if not much, of the information banks report to them. By fueling market information in this way, regulators may stimulate greater investor interest in banks and the growth of local capital markets. Improved disclosure practices by banks may, in turn, also spill over to other industries. One thing we know for sure is that investors dislike uncertainty. By shedding light on a bank’s condition and future prospects, some of that uncertainty should disappear.

While it is important that key prudential standards be sufficiently robust and consistent among countries, certain variations in the details and applications of these standards can be useful. As with private markets, some level of competition among regulators can stimulate improvements and change. I will grant that the United States may take regulatory competition to an extreme, but it also demonstrates, I believe, the advantages that derive from accommodating different views and permitting financial institutions alternative ways to do business. In my view, and considering the political difficulties we have faced in trying to change U.S. banking laws, our current regulatory structure, offering some choice in charter that is administered by multiple regulators, has provided financial institutions with more freedom and expanded powers than they would likely have received with a single regulator.

Supervisors must be careful, however, as they try new or different techniques, that they not impair their oversight efforts or relax them beyond prudent bounds. In such global markets as we have today, weak or ineffective supervision in either large or small countries can have far reaching consequences. Those concerns were at the heart of
early work of the Basle Committee and its efforts to identify the respective roles and responsibilities of home and host authorities for internationally active banks. It is important for supervisors to be able to rely on their counterparts in other countries to administer agreed-upon standards of financial institution safety and soundness.

Whether we conduct our own on-site examinations, rely on external auditors, or use combinations of other supervisory techniques, we need to assure ourselves that all banking offices are adequately managed and supervised. I would note here that among G-10 countries a more consistent approach may begin to emerge. We in the United States are making greater use of the findings of a bank’s internal and external auditors to guide or supplement our on-site examinations, while some of our counterparts abroad are recognizing more the benefits of on-site exams.

**Financial Conglomerates**

Some of the greatest challenges to bank supervisors may arise when organizations link banking activities with other financial or nonfinancial businesses. Such financial conglomerates, which often combine banking, insurance, and securities activities, are not currently allowed to provide a full array of financial services in the United States, but they may do so abroad.

The existence of such firms—and the fact that some of them are headquartered in this country—have required regulators and supervisors in the United States to work with counterparts abroad to discuss oversight arrangements and develop ways to deal with matters in times of crises. This very issue is one of our current challenges. I have to say that this is not a particularly quick or easy process and is further complicated by the diverse regulatory structures, both here and abroad, involving banking, securities, and sometimes insurance regulators.

These discussions often raise difficult issues, since they tend to break new ground in supervision. For example, what approach should be taken regarding nonbank—or even nonfinancial—activities of companies that own banks? In the context of these conglomerates, what does or should “consolidated supervision” mean? Within the context of consolidated supervision, how can the traditional safety-and-soundness approach used by bank supervisors be reconciled with the disclosure/self-regulatory approach used by many securities regulators? Moreover, do the diverse operating structures of conglomerates imply an extension of the safety net that virtually all governments
currently extend to banks? One thing is clear: as we address the challenges of promoting a more consistent bank supervisory and regulatory process worldwide, we cannot always take official descriptions of regulatory and oversight regimes at face value. We need to dig deeper to understand how laws are interpreted and how individual banking agencies monitor and enforce safe banking.

Different countries necessarily have different banking and financial systems that face unique combinations of exposures and business risks. Even within the United States, for example, we have a relatively uniform supervisory approach for all banks and a risk-based capital standard that applies to them all. In practice, however, the activities of our banks, their capital levels, and their operating practices are quite diverse, and our oversight efforts take those differences into account. Small banks, themselves, recognize the greater risks they face from their lack of size and diversity, and have consistently maintained higher capital ratios than do money center banks. But they also have less formal procedures and internal controls, simply because their staffing and operations are so much smaller. The point is that even a uniform set of rules within a given country can and should be implemented differently as conditions demand.

Conclusion

It seems clear that as financial markets become more and more integrated, bank regulators around the world will be seeing more of each other than they have in the past. Even in countries that have no internationally active domestic banks, authorities need to ensure that the banks operating in their markets are sound and subject to adequate supervision, whether by home or host authorities. Banks operating imprudently and without proper supervision are the ones most likely to mismeasure their risks, misprice their products, and disrupt the markets. Detecting and deterring such institutions does not require us to have uniform regulatory or supervisory systems, but it does require a certain level of cooperation and coordination and a material level of consistency in our regulatory regimes. Our experience in the United States suggests that achieving an appropriate convergence takes time, not only to develop but to maintain. Progress we have seen through the European Union and the BIS goes far in coordinating, or harmonizing, banking laws, regulations, and operating standards, but that’s just a start. As managers of large financial institutions develop more sophisticated and more comprehensive risk management systems, they are paying less attention every day to the peculiar legal structure
of their organizations. As regulators, we need to understand how banking organizations manage and control risks and the full implications of their practices for the financial safety of depository institutions. By doing so, we can do much to protect our own interests while still recognizing and accommodating the business needs of banks.

In developing our laws and regulations we need to work together, for sure. But perhaps more importantly, we need to understand the market forces and incentives that banks face. If we keep those factors in mind in developing our individual rules, we may go far in developing regulatory systems that are both compatible among countries and less intrusive to the institutions we oversee.
Everyone here is well aware of the importance of bank soundness—and more broadly, of financial sector soundness—for general economic performance. This much, I am sure, has been agreed in the discussions you have held this week. One of the challenges ahead, then, is to ensure that banking and financial systems, domestic and international, are—and indeed remain—sound. Given the macroeconomic fallout and other negative externalities of banking system problems, efforts to keep national and international financial systems sound are very much part of the Fund’s mandate. You will recall that I referred to this in my opening remarks. I now want to take the opportunity to focus on what needs to be done to promote bank soundness around the world and how the Fund can be involved in, and assist in, that process.

But in order to assess what needs to be done, we must first understand the causes of the problem. One fundamental cause of banking problems is poor management, and more broadly, weak internal governance by owners and managers. These weaknesses are frequently brought to light by adverse macroeconomic developments, which have a negative impact on all banks, but tend to affect poorly managed ones most heavily. Normally, we would expect the market to help discipline poorly managed banks. But the fact is, the market is often not in a position to do so—in part, because it lacks information. Sometimes this is because of a lack of data disclosure, but often it also has to do with the difficulties that surround the valuation of bank assets for which there are no objective values—particularly when loans become nonperforming. Rules for loan classification, loan loss
provisioning, and income recognition seek to correct this information problem, but we all know that such rules are difficult to enforce. Moreover, the problem is compounded by the development of new types of financial instruments, and the organization of banks into financial conglomerates, whose scope is often hard to grasp and whose operations may be impossible for outside observers—even banking supervisors—to monitor.

What is the role of the authorities in the face of such problems? Many governments are concerned about protecting the central role of the banking system and guarding against the negative externalities associated with bank failures, especially when such failures are widespread. Accordingly, they have introduced various types of safeguards to foster proper internal governance, compensate for failures in market discipline, and help protect the banking system in the event of adverse macroeconomic shocks. These safeguards include not only financial safety nets, such as deposit guarantee schemes and lender-of-last-resort facilities, but also the entire framework of prudential regulation and supervisory practices.

But if official safety nets are to bolster incentives for prudent banking and proper internal governance, as well as market discipline, they have to be properly designed. In particular, they must not create moral hazard. Indeed, even the existence of official supervision can lead to this, if market participants expect supervisors to guarantee the safety and soundness of every bank. Thus, the authorities must make clear what official action can and cannot do.

In particular, they need to clarify what prudential regulation and supervision can and should be expected to do. Having been in charge of supervision for some time, I have some views on this. Of course, supervisors should be expected to maintain a sound and efficient banking system. They should make sure that banks are operated in a prudent manner by fit and proper owners and managers; that risks are managed professionally; that prudential norms regarding self-dealing and risk exposures are adhered to; that deviations from sound banking practices are promptly corrected; and that failing banks exit the market before their capital has been exhausted. Indeed, the objective of supervisors should not be to keep every problem bank alive, but rather to initiate an early, orderly, and efficient exit when banks become severely undercapitalized. Only in such a manner can supervisors make sure that bank creditors will lose as little as possible, that the confidence of savers will be maintained, that claims on the financial safety nets will be minimized, and that the banking system as a whole will remain sound.

But supervisors cannot do all of this singlehandedly. The authorities need to put in place proper banking and other financial legislation, as
well as an adequate set of prudential regulations. The authorities must also ensure that supervisors have the capacity to assess bank owners and management, their internal risk-management systems, the adequacy of their loan provisioning and accounting practices, and the reliability of the data they report. I wish to stress that without proper loan classification and provisioning, prudential ratios and, in particular, capital adequacy ratios, which are the principal focus of supervisors, generally prove meaningless.

In order to make these complicated assessments, there must be a highly skilled professional staff of banking supervisors who have thorough training and adequate equipment to perform their demanding tasks. None of this will be sufficient, however, if the supervisors lack the institutional and professional authority to carry out their duties free from political interference. When supervisors identify a problem, they must be able to require remedial measures and to enforce penalties if these measures are not taken.

One important challenge for supervisors in many countries is the increasing complexity of the organizational structures that they are expected to supervise—that is, conglomerates that deal with all types of financial and nonfinancial operations—often not just within one country, but around the globe. Meeting this challenge will require enormous efforts to harmonize regulations and practices among supervisors of different categories of financial institutions, both nationally and internationally. Many such efforts are already under way, and some headway has been made. However, it is not clear that the progress has been commensurate in all respects with the speed with which financial markets are evolving today.

In this connection, I would like to return to the problem I emphasized earlier: the quality of data on banks’ loan portfolios and other assets. As I am sure you have discussed this week, a lack of accurate data undermines not only internal governance in banks, but also market discipline and official oversight. Increasing the availability of reliable information and data will require a truly massive international effort to improve accounting and auditing standards and especially to get common rules and practices on loan classification and provisioning.

Clearly, the major role in ensuring banking system soundness belongs to the national authorities. But the Fund can continue to make an important contribution also. We can help maintain sound and stable financial systems through our traditional work of encouraging appropriate and sound macroeconomic policies. To this end, we will continue to adapt our surveillance work in the context of Article IV consultations; we will also continue to expand our technical assistance in key areas.
What will this entail? In particular, we shall be paying closer attention to the linkages between banking system soundness and macroeconomic policy, both in terms of the policy mix and the instruments used. We will also press for transparent fiscal treatment of losses and of contingent costs that may be building up in the banking sector, and for fiscal and monetary policy to take these costs fully into account. And whenever macroeconomic or market signals of likely future trouble in the banking system loom ahead, the Fund will seek to focus the authorities’ attention on those signals and encourage them to undertake policies to address them before the situation deteriorates. We will also be incorporating these factors into our program design and technical assistance.

In addition, the Fund will pay increased attention to the overall institutional and regulatory framework of national financial sectors. This will include assessing whether incentive structures conducive for sound banking are in place; to what extent official safety nets are properly designed; whether the proper legal and regulatory framework is in place; whether the supervisory capacity and integrity exist to maintain a prudent system; and, finally, whether market forces and prudential oversight are mutually reinforcing. We will help countries to address these issues through our technical assistance.

In order to make judgments in all these areas, we need to gain a better understanding of the issues involved and become familiar with the best principles and practices in banking and financial activities. To this end, we are in the process of preparing a paper for discussion in our Executive Board toward the end of March that will lay out a broad framework for sound banking, and include a supplement with a list of existing best principles and practices. To compile this list, we will use standards, guidelines, principles, and practices developed by other institutions, such as the Basle Committee on Banking Supervision, the Commission of the European Union, and the World Bank—where available. In this context, we look forward in particular to the work under way in the Basle Committee. We will also draw on practices that have proven successful in various of our member countries. It is important to note here that we envisage that these best practices will be subject to continued revision and adaptation to ensure that they remain abreast of, and consistent with, market developments.

Initially, our work will focus on banking systems, but we will eventually need to include other financial intermediaries, as well. In this connection, our work should complement the ongoing efforts of banking, securities, insurance, and pension funds supervisors to harmonize rules, regulations, and practices in individual countries, as well as internationally. Among the important discussions presently under way
in this area, I look forward in particular to seeing the recommenda-
tions of the G-10 Working Party on Financial Sector Fragilities in

In concluding, let me return once again to what I see as the central
issue: namely, the problem of reliable information and data upon
which the success of our endeavors ultimately depends. I hope that a
serious international effort will be undertaken to improve the quality
and timeliness of data and that, as we gather experience, the Fund will
be able to expand its recently launched Data Dissemination Standard
to include banking and other financial statistics, as needed.

To be sure, improvements in data and the strengthening of pruden-
tial frameworks worldwide will require efforts on many fronts. To
bear fruit, these efforts will have to involve international cooperation
on a large scale and on an ambitious timetable. The Fund looks for-
ward to cooperating with all other institutions involved. I also envis-
age a major role in this domain for the private sector, including, for
example, international credit rating agencies, auditing firms, and mar-
ket analysts.

Last year I said that I suspected the next international economic cri-
sis would begin with a banking crisis or almost certainly be com-
pounded by one. Let us hope that all of our efforts to increase the
awareness of financial sector problems and to seek solutions to them
will lead to serious reforms—both nationally and internationally—that
promote sound banking and market discipline. Through these efforts,
including events such as this Seminar, we can substantially reduce the
possibility of my suspicions becoming reality.
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