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Managing Systemic Banking Crises

By a Staff Team Led by
David S. Hoelscher and Marc Quintyn

INTERNATIONAL MONETARY FUND
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The following symbols have been used throughout this paper:

. . . to indicate that data are not available;

— to indicate that the figure is zero or less than half the final digit shown, or that the item does not exist;

– between years or months (e.g., 2001–02 or January–June) to indicate the years or months covered, including the beginning and ending years or months;

/ between years (e.g., 2001/02) to indicate a fiscal (financial) year.

"n.a." means not applicable.

"Billion" means a thousand million.

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

The term "country," as used in this paper, does not in all cases refer to a territorial entity that is a state as understood by international law and practice; the term also covers some territorial entities that are not states, but for which statistical data are maintained and provided internationally on a separate and independent basis.

Preface

This paper updates the International Monetary Fund's work on general principles, strategies, and techniques for managing systemic banking crises in light of the new challenges faced in recent financial sector crises.

The project was carried out in the Monetary and Financial Systems Department (MFD) under the supervision of Stefan Ingves, Director of MFD, and Carl-Johan Lindgren. Both gave intellectual direction and clarity to the department's work, drawing from their significant experiences in the field.

The material in this paper was originally prepared in late 2002 for the IMF's Executive Board and was subsequently discussed by the Core Principles Liaison Group of the Basel Committee on Banking Supervision in April 2003. The final paper has further benefited from comments by Executive Directors and IMF staff.

The paper reflects in particular the contributions of the staff of MFD's Systemic Banking Issues Division. The authoring team included Michael Andrews, Luis Cortavarría, Fernando Delgado, Olivier Frécaut, Dong He, Mats Josefsson, Yuri Kawakami, Marina Moretti, Alvaro Piris, Steven Seelig, and Michael Taylor. Silvia Ramirez provided valuable research assistance, and the paper would not have been completed without the excellent secretarial assistance of Sandra Solares. Gail Berre of the External Relations Department edited the paper and coordinated production of the publication.

The views expressed in this paper, as well as any errors, are the sole responsibility of the authors and do not necessarily represent the opinions of the IMF Executive Board or other members of the IMF staff.

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I Overview

This paper draws lessons on the general principles, strategies and techniques for the effective management of systemic banking crises.[1] Lessons outlined in this paper derive from the accumulated experiences of IMF staff. Principles and practices of crisis management derived from earlier crises have already been discussed by the IMF Executive Board and subsequently published.[2] Recent financial sector crises and their resolution have raised new issues and provided additional experiences. Specifically, banking crises in Argentina, Ecuador, Russia, Turkey, and Uruguay have occurred within the context of highly dollarized economies, high levels of sovereign debt, and/or severely limited fiscal resources. These factors have introduced new challenges as the effectiveness of many of the typical tools for bank resolution has been affected.

Banks' unique features—their key role in intermediation and growth, price stability, and the payment system—makes the management of banking problems markedly different from the management of other corporate failures. This paper focuses, however, on issues raised in systemic crises and not on the resolution of individual bank problems. Resolution of individual bank problems in normal times is the subject of a recent report by the Working Group of the Basel Committee on Banking Supervision.[3] This paper draws on the conclusions of that report and should be seen as a complement to it. In the same vein, in-depth discussions of legal issues are being addressed by a joint IMF/World Bank project.[4]

Managing a systemic banking crisis is a complex, multiyear process. Whereas defusing an initial liquidity crisis may be accomplished in a few weeks, resolving a systemic banking crisis and the related corporate debt restructuring can take many years. While many of the initial measures are macroeconomic in nature—meant to restore confidence—the medium-term restructuring is largely a microeconomic exercise.

The key to successful banking crisis management is coordination of the banking strategy with the overall policy framework. Management of such crises often requires adjustments in most aspects of economic policy implementation. While this paper concentrates on the specifics of bank restructuring, policymakers need to be aware of the broader policy context within which bank restructuring must take place. Banking resolution has to take place in a supportive macroeconomic environment. Over the full cycle of a crisis, this often requires the authorities to deal with various combinations of monetary and exchange policies (including the possible introduction of capital controls), and fiscal and debt management policies. Macroeconomic constraints must be consistent with the framework for addressing banking sector problems.

Banking crises are often costly to society. The costs of banking crises can be minimized if appropriate policies are followed. The banking strategy must be rapidly designed and efficiently implemented. A delay in addressing the emerging crisis increases the costs and prolongs the crisis. Modifications in the legal framework may become necessary if bank shareholders and creditors have excessive powers that allow them to pass eventual costs to the government. The process of bank diagnosis must be quickly implemented. The banking strategy, together with the policies concerning depositor protection, should be designed to avoid the presumption that banks cannot fail. Rather, the strategy should aim for an efficient banking system that is viable over the medium term.

In an effort to limit the public costs of a crisis, private funds should be the first source for bank recapitalization. To that end, it may be helpful to maximize private sector participation in bank restructuring. This latter effort may involve reducing legal impediments to foreign investment in the banking system.

[1]There is some debate about the definition of a systemic crisis. Systemic crisis is generally considered one in which the stability of the banking system and, as a consequence, the payments system and real sector, are threatened.

[2]Lindgren, Garcia, and Saal (1996); IMF (1997); and Lindgren and others (1999). See also Bank for International Settlements (1999) and Dziobek and Pazarbaşiğlu (1997).

[3]Basel Committee on Banking Supervision (2002).

[4]A joint IMF/World Bank project is developing guidelines for the legal and institutional aspects of dealing with bank insolvencies (forthcoming IMF/WB paper). On this topic, see also Asser (2001).

Box 1. Bank Resolution Terminology

Some terms related to bank resolution have a range of meanings. The following terminology is used in this paper:

Intervention or takeover of insolvent or nonviable institutions by the authorities refers to the assumption of control of a bank, i.e., taking over the powers of management and shareholders. The term "intervened bank" is used to indicate a bank where such actions have taken place. Such a bank may be closed or may stay open under the control of the authorities while its financial condition is better defined and decisions are made on an appropriate resolution strategy. Such strategies include liquidation, merger or sale, transfer to a bridge bank, recapitalization by the government, and sales or transfers of blocks of assets or liabilities. A bank undergoing this process is termed a "resolved bank."

Closure means that the bank ceases to carry on the business of banking as a legal entity. A closure may be part of a legal process of achieving the orderly exit of a weak bank through a range of resolution options, including liquidation or a complete or partial transfer of its assets and liabilities to other institutions. A bank may be left with a rump of bad assets to be worked out. Withdrawal of the banking license typically accompanies a closure.

Liquidation is the legal process whereby the assets of an institution are sold and its liabilities are settled to the extent possible. Bank liquidation can be voluntary or forced, within or outside general bankruptcy procedures, and with or without court involvement. In liquidation, assets are sold to pay off the creditors in the order prescribed by the law. In a systemic crisis with several institutions to be liquidated simultaneously and quickly, special procedures or institutions may be needed for the liquidation because existing structures cannot carry out the job in a timely manner.

A **merger (or sale)** of an institution means that all the assets and liabilities of the firm are transferred to and absorbed into another institution. Mergers can be voluntary or government assisted. A key issue is to avoid mergers of weak banks that result in a much larger weak bank, or the weakening of an initially strong bank.

In a **purchase and assumption operation**, a solvent bank purchases all or a portion of the assets of a failing bank, including its customer base and goodwill, together with all or part of its liabilities. In such a supported purchase and assumption operation, the government typically will pay with securities to the purchasing bank the difference between the value of the assets and liabilities. Purchase and assumption operations could include some form of put option, entitling the acquiring bank to return certain assets within a specified time period, or a contractual profit or loss–sharing agreement related to some or all of the assets.

A **bridge bank** involves the use of a temporary financial institution to receive and manage the good assets of one or several failed institutions. A bridge bank may be allowed to undertake some banking business, such as providing new credit and restructuring existing credits.

The provision of public resources, in turn, should be subject to clear and transparent rules. Moreover, the policy on the provision of public resources should be made within the context of the medium-term sustainability of the public sector finances. Finally, the eventual costs of a banking crisis will be eased by the adoption of appropriate techniques to maximize asset recovery and reprivatization of intervened banks (see Box 1 for bank resolution terminology).

A full crisis-management cycle represents a sequence of interdependent events. To present and discuss such a sequence poses a challenge, yet can look deceptively orderly. It is important to keep in mind that no presentation represents a one-size-fits-all model for dealing with systemic banking crises. There are common threads and similarities among countries but, in the end, all countries have to deal with their own special economic, legal, institutional, and political conditions. The intention here is modest—to present and discuss tools that are available and how they can be used.

The structure of the paper is as follows: Section II provides a brief discussion of causes of a systemic banking crisis, its costs, and the crisis management strategy. Section III describes the initial crisis containment stage. Section IV deals with the second component, bank restructuring, while Section V covers the third component, management of nonperforming loans and corporate debt restructuring. Section VI discusses linkages between bank restructuring and macroeconomic policies. Appendix I discusses the methodology for measuring fiscal costs associated with major systemic crises. Finally, Appendix II provides case studies of key systemic banking crises that have emerged since the early 1990s.

II Systemic Crises: Causes, Cost, and Resolution

The Emergence of a Systemic Crisis

A systemic crisis emerges when problems in one or more banks are serious enough to have a significant adverse impact on the real economy. This impact is most often felt through the payment system, reductions in credit flows, or the destruction of asset values. A systemic crisis often is characterized by runs of creditors, including depositors, from both solvent and insolvent banks, thus threatening the stability of the entire banking system. The run is fueled by fears that the means of payment will be unobtainable at any price, and in a fractional reserve banking system this leads to a scramble for high-powered money and a withdrawal of external credit lines.

Loss of creditor confidence can result from the recognition of significant banking system weaknesses. Such recognition may be triggered by economic or political events. The events in the Asian countries in 1997 are among the more recent examples of such a crisis.[5] Creditors can also lose confidence in sound banking systems due to poor macroeconomic policies, external shocks, or even improper sequencing of financial sector reforms. The resulting liquidity crisis, if mismanaged, can result in financial panic and insolvency. International capital market integration in the 1990s has added a new dimension to banking crises. Perceptions by foreign investors of macroeconomic weaknesses, concerns about the future path of economic policies, political turmoil, or fear of contagion from other crises can lead to a quick deterioration in international creditor sentiments (see Box 2 for a more in-depth discussion of the causes of banking crises).

Treatment of a systemic banking crisis contrasts in important ways with the treatment of individual bank failures in stable periods. Policies considered appropriate in stable periods may aggravate uncertainties in a systemic crisis, worsening private sector confidence and slowing recovery. In stable periods, for example, deposits have only limited protection, emergency liquidity assistance is given under very restricted conditions, and undercapitalized or insolvent banks are immediately intervened and resolved. In a systemic crisis, however, events can change rapidly, banking conditions may deteriorate quickly, and information on the true condition of banks tends to be limited and often outdated. In such an environment, policies should be aimed at limiting the loss of depositor confidence, protecting the payment system, restoring solvency to the banking system, and preventing further macroeconomic deterioration.

A successful restructuring requires decisive government action from the onset of the crisis. Determined actions to strengthen macroeconomic policies and implement structural reforms can reduce the magnitude of the crisis. Often, such early determination is lacking because the authorities (and market participants) need time to recognize the severity of the situation, or worse, are in denial. Delays in implementation may prevent or slow the return of both depositor confidence and access to international capital markets, deepening the crisis. Comparisons of recent crises in Argentina (2002), Brazil (1999), Russia (1998), and Turkey (2000) point to the importance of rapid and determined policy adjustments.

The Cost of Banking Crises

Measuring the cost of banking crises is a difficult task.[6] One needs to distinguish between the total cost to the society, which is hard to measure, and the fiscal cost. The former concept is discussed in Section VI. Here we deal with the fiscal cost.

The costs of banking crises have varied sharply. Costs to the public sector have ranged from small amounts (close to zero) in Russia and the United States to over 50 percent of GDP in Indonesia (Figure 1 and Appendix I). Three main factors affect the gross cost to the public sector: the initial macroeconomic conditions and the financial sector,

[5]Lindgren and others (1999).

[6]See, among others, Frydl (1999) and Frydl and Quintyn (2000).

Box 2. Typology of Banking Crises

A banking system crisis usually arises from multiple sources, each interacting with one another to aggravate and accelerate the crisis. For that reason, typologies are artificial and of only limited analytical use. At best, only broad categories can be identified that capture the most fundamental elements of a crisis.

Based on their causes, banking crises can be classified broadly into one of two categories: predominantly microeconomic, or predominantly macroeconomic. Crises arising from microeconomic causes are largely related to poor banking practices. Lax lending practices may fuel asset price bubbles or lead to excessive concentration of banks' portfolios. Weak risk-control systems have been a major factor in the emergence of a number of crises, leading to a variety of balance sheet deficiencies—large and undetected mismatches (either currency or maturity) on the balance sheets or poor asset quality, leading to large unrealized losses. Banks with balance sheet deficiencies are vulnerable to any shock, and even comparatively minor external events may be sufficient to provoke a loss of confidence and a generalized run.

Crises arising from macroeconomic causes are initiated by developments external to the banking system. Deterioration in the macroeconomic policy environment may cause banking crises in even well-managed banking systems. Well-run banking systems operating in a strong legal and regulatory framework can be overwhelmed by the effects of poor macroeconomic policies. While well-run banks may be able to absorb some macroeconomic shocks, continued unsound monetary, exchange rate, or fiscal policies can produce financial strains that overwhelm banks' defenses, affecting their solvency or forcing them into risky operations. The way in which these policies might affect banks depends on balance sheet structures. For example, large exposures to the government—often the result of high yields on public bonds—increase bank vulnerability to unsustainable fiscal policies. Dollarization of financial contracts, while contributing to higher intermediation, makes banks vulnerable to unsound exchange rate polices, as even in the absence of currency mismatches banks are exposed to credit risk from unhedged borrowers. Even with overall sound balance sheet structure, banks are vulnerable to unsustainable monetary policies, leading to high and volatile interest rates. It goes without saying that the worst crises are those where macroeconomic shocks affect a weak banking system.

As long as the banks remain liquid, banking distress can persist for a prolonged period until some trigger leads creditors to lose confidence in the banking system, leading to a generalized run. Many kinds of events can trigger a loss of confidence, including emergence of illiquidity in an individual bank (local contagion), a loss of confidence in the government and its ability to implement its macroeconomic framework, or the emergence of a systemic crisis in a country related through financial and trade channels (international contagion). Lack of appropriate action or delays in addressing the emerging problems further fuels the bank run.

the authorities' policy response (i.e., the specific measures taken), and the degree of success in recovering the value of assets acquired during the crisis. Fiscal costs may not represent a complete loss to the economy, as some part of the expenditure represents a transfer to the domestic private sector. A banking crisis will also result in costs to the economy in terms of macroeconomic instability and foregone growth, which have proven complex to estimate.

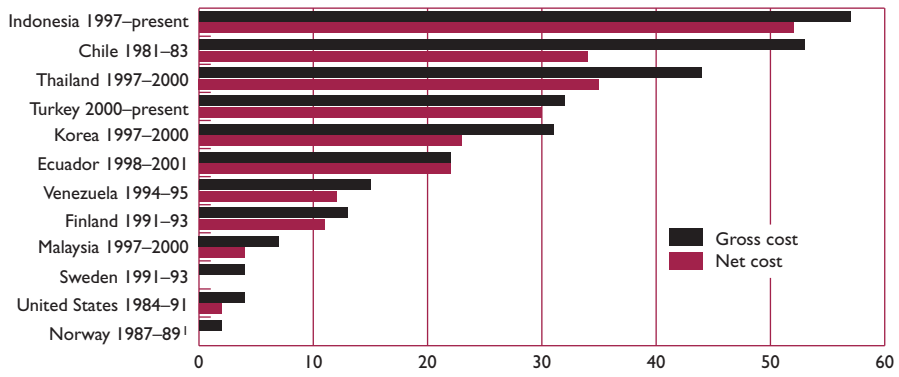
Gross costs can be measured as outlays of the government and central bank in terms of bond issuance and disbursements from the treasury for liquidity support, payout of guarantees on deposits, costs of recapitalization, and purchase of nonperforming loans. Net costs to the public sector deduct from gross costs recoveries from the sale of assets and equity stakes and repayment of debt by recapitalized entities.[7]

Gross costs have varied widely in recent crises. Initial macroeconomic and financial sector conditions are important determinants of the differences. For example, financial and corporate sector weaknesses in the Asian crisis countries made financial institutions more vulnerable to declines in asset values, devaluation, and reversal of capital flows. This vulnerability in turn helped foster speculative attacks and worsen capital flight, increasing losses and raising the ultimate resolution costs.

The policy response of authorities has also been key. Russia, for example, did not offer a blanket guarantee and did not recapitalize banks with public funds. While the costs to the economy may have been lower had there been more active public intervention, the direct costs to the state were low. The quality of the policy response, in terms of either macroeconomic adjustment or the handling of bank failure, affects the severity of the crisis. Lack of policy coordination or a clear, well-communicated strategy can raise costs to the economy by prolonging the crisis, undermining efforts to stem deposit runs and increasing uncertainty for borrowers, shareholders, and depositors. Late

[7]Appendix Table AI.2 provides these data and a fuller discussion of methodology used, as well as data sources and important country-specific information.

Figure 1. Fiscal Costs of Selected Crisis Countries
(In percentage of GDP)



Sources: IMF, *International Financial Statistics*, *World Economic Outlook*, and national authorities.
[1]Data on net cost unavailable.

recognition of the systemic nature of the problems can also increase the final costs. For example, both these factors were important in Venezuela in the mid-1990s.

A final difference affecting net costs is how successfully the state recovers the value of assets acquired during the crisis. Two components are particularly important: sale of nonperforming loans and reprivatization (or sale of equity) of banks acquired during recapitalization. Recovery performance can vary considerably. While Sweden and Norway were able to recover all the costs associated with the crisis and still retain stakes in banks taken over, in general recovery rates have been low. The market value of nonperforming loans typically declines quite rapidly, while equity stakes in banks and enterprises might appreciate as they recover, or fall to zero. Also, in many cases, such as the United States, funds generated from asset disposals were recycled and used to recapitalize further institutions, thus lowering gross outlays.

Macroeconomic Context for Bank Restructuring

Coordination with the overall macroeconomic framework is a key factor in successful banking crisis management. Systemic financial crises affect most sectors of the economy and require adjustments in most aspects of economic policy implementation. While this paper concentrates on banking system restructuring, policymakers need to be aware of the broader policy context within which such restructuring must take place. Bank restructuring needs to be implemented in conjunction with supporting macroeconomic policies, taking into account existing macroeconomic constraints. Moreover, measures to contain the crisis and restructure banks may have macroeconomic consequences that need to be taken into account in the design of a bank resolution strategy.

At the outset of a crisis, macroeconomic policies may need to be adjusted to restore confidence in the banking system and the currency. The policy mix will depend on the nature of the macroeconomic imbalances and the state of the banking system. A temporary tightening of policies may be inevitable, however, when a creditor run from the banking system occurs with accompanying pressures on the price level, net international reserves, and the exchange rate. Comprehensive macroeconomic policy adjustments will be needed to restore stability, lower interest rates after an initial hike, and allow for a return of economic stability.

Authorities may consider capital controls when faced with runs not only on deposits but also on the currency. Capital controls must be tight enough to be effective, and their design should address the likelihood that means for evasion will quickly emerge.

Such careful design is critical to ensure an effective system that minimizes the economic costs of the controls.[8]

Operations of the nonfinancial public sector often lie at the heart of a financial crisis. Persistent fiscal deficits, financed through central bank credit expansion, often fuel inflation and asset price bubbles. Moreover, high levels of government debt can undermine creditor and depositor confidence, making the banking system more prone to runs. Tax reform, combined with expenditure prioritization, is therefore a key aspect of the broad policy response to systemic financial crises in many cases. Design of the fiscal adjustment path must be clearly embedded in the broad strategic response to systemic financial crises.[9] When sovereign debt dynamics are unsustainable, however, measures to achieve sovereign debt sustainability may sometimes cause banking system insolvency, thus increasing costs to the government and the economy that could reduce or eliminate the gains from debt reduction. Therefore, strategies for both bank and debt restructuring must be closely coordinated and consistent with each other.

As the macroeconomic policy stance and monetary policy tools are adjusted, the authorities may also have to strengthen their sovereign debt management. Banking crisis resolution has fiscal implications, and the techniques chosen will need to be consistent with the medium-term sustainability of public debt. The authorities should seek to ensure that the debt growth is not excessive and is closely coordinated with monetary and fiscal policy objectives. The changes in maturity structure, exchange exposure, and contingent claims must be carefully considered as part of the overall financial resolution strategy, as they can affect the costs of financing the resolution of the crisis.[10]

A Strategy for Managing a Systemic Banking Crisis

The strategy for managing a banking crisis must be tailored to country-specific conditions. Country-specific factors include the cause of the crisis, the macroeconomic conditions and outlook of the country, the financial position of the banking system, the risks of internal and external contagion, and the availability of resolution tools.[11] In recent years, two polar examples have emerged. Banking crises have occurred in countries with weak banking systems dominated by local currency–denominated assets and liabilities, and where the governments had a relatively wide range of resolution tools. The Asian crisis largely reflected these conditions. In contrast, crises have also emerged where the banking systems have been relatively strong, and highly dollarized, but where the governments had limited resolution tools. The recent crises in Latin American countries reflect these conditions. While future crises may fall between these two extremes, the differences in approach illustrated by these polar cases provide a guide to adapting banking strategies to local conditions.

Any strategy typically includes three interconnected components. The first and most urgent component deals with an acute liquidity crisis. The liabilities of the banking system must be stabilized and deposit runs stopped. The second component seeks removal of insolvent or nonviable banks from the system and restoration of financial soundness and profitability. The third component of the strategy, which has a medium-term time horizon, focuses on the financial restructuring of nonperforming loans and the operational restructuring of bank borrowers.

Crisis Containment

The most immediate component of managing a banking crisis is the stabilization of bank liabilities—stopping depositor and creditor runs. The central bank, as the lender of last resort, should provide sufficient liquidity to the banking system to protect the payment system and give the authorities time to identify the causes of the crisis and design an appropriate response. In the face of sharp increases of liquidity, the central bank should use its monetary instruments to sterilize any resulting increase in the money supply. Moreover, such support should be limited to solvent banks. In the early stages of the crisis, however, it is difficult to distinguish between insolvency and illiquidity, and the government may have to recapitalize the central bank once the crisis has been resolved. In highly dollarized economies, the central bank's ability to provide emergency liquidity is constrained by the level of international reserves, access to international capital markets, and support from international financial institutions. In such cases, the liquidity may not be available, and more aggressive policies on bank resolution may be needed.

If credible, a blanket guarantee can restore investor confidence and stabilize banks' liabilities. A blanket

[8]See Ishii and others (2002).

[9]See Daniel and Saal (1997).

[10]See IMF and World Bank (2001) and World Bank (2001).

[11]Country-specific factors also include ownership structures of the banking system and the corporate sector; human resource constraints; the legal, regulatory, judicial, and administrative frameworks; traditions of transparency; as well as political cohesion and the quality of leadership. These factors will influence the pace and success of the resolution strategy.

guarantee gives the government some breathing space to develop a comprehensive restructuring strategy. It also makes resolution of weak banks easier, as bank interventions and closures are less likely to prompt depositor panic. A blanket guarantee alone, however, cannot contain a liquidity crisis; to be successful, it must be part of a credible stabilization package. Moreover, the moral hazard risks in a blanket guarantee have to be balanced against the potential benefits from such a guarantee. A blanket guarantee may not be credible in the face of unsustainable public debt dynamics or in a highly dollarized banking system. If dollarization is moderate, a guarantee could cover foreign currency liabilities in their domestic currency equivalent at market exchange rates.

If market-oriented stabilization measures do not contain the crisis, the authorities may have to resort to administrative measures to avoid losing monetary control. Such measures include securitization of deposits, forced extension of maturities, or a deposit freeze. To varying degrees, these measures impose restrictions on the depositors' ability to withdraw their funds. Administrative measures can cause major economic disruption and, therefore, must be viewed as a last resort to stop a run on banks if all other measures fail.

Bank Restructuring

The second component of the restructuring strategy is to restore the profitability and solvency of the banking system. The first task is to identify the size and distribution of bank losses. Supervisory data may be outdated, so a process for collecting data based on uniform valuation criteria should be initiated. The next task is to classify banks into one of three categories: viable and meeting regulatory requirements, nonviable and insolvent, or viable but undercapitalized. In the latter classification, an additional assessment will be needed of the ability of the existing shareholders to recapitalize their banks within an acceptable period.

The determination of a bank's viability is a critical aspect of managing the restructuring process. Financial statements and asset values of a bank are often distorted during a crisis, making it difficult to determine a bank's financial position. Under such circumstances, viability may be determined by examining two factors. First, the bank must develop a medium-term business plan and cash flow projections, based on realistic macroeconomic assumptions that show future profitability and medium-term strength. Second, shareholders must be committed and financially sound. Any business plan can go wrong; the shareholders must stand ready to adopt corrective measures. In addition, the authorities must develop a view as to the future volume of activity that the economy can absorb and establish criteria for bank evaluation that aims at an appropriately dimensioned banking system.[12]

Resolution techniques will depend on the banks' financial conditions and medium-term prospects. All solvent but undercapitalized banks should be required to present acceptable restructuring plans. Bank recapitalization may be phased in if accompanied by an acceptable restructuring plan. An insolvent bank should be intervened and transferred to the institution responsible for bank resolution, which will decide whether to close it or keep it open. If the bank is closed, decisions need to be made on how to manage assets and liabilities, including nonperforming assets, performing assets, and deposits. If the bank is kept open, the restructuring institution must decide on a range of options, including whether to recapitalize the bank with public funds; to offer it for immediate sale or as a merger partner to a private institution; or to merge it with another solvent, government-owned bank.

Explicit decisions about burden sharing must be made in the design of the restructuring strategy. A banking crisis reflects losses of banks and their borrowers. The costs must be shared by some combination of bank shareholders, depositors, other creditors, and taxpayers. How the costs are paid and the distribution of the costs among different agents is a political as well as a technical decision, which requires explicit consideration in the design of the strategy. This process is difficult because the determination of losses is extremely difficult, nonperforming loans have no clear market value, and the size of losses is constantly changing in response to changes in the business environment. Strong and cohesive political leadership is required to address these issues.

Public capital support of private banks may be justified in some situations. The authorities may help private owners achieve a least-cost resolution. In this case, injection of new funds by the shareholders could be supplemented with public funds. Public participation in the recapitalization may be justified when the economy does not have sufficient capital and foreign interest is limited. Public funds may also be justified when the banking problems are the direct result of public policy.

Once the banking system has stabilized and both corporate restructuring and asset resolution are

[12]The proposal is not to identify and protect a core banking system; in principle, market forces should determine the winners and losers among financial institutions. Rather, the authorities should adopt uniform and transparent rules that apply to all banks. If faced with the need to consolidate the banking system, prudential rules must be sufficiently strong to ensure continued financial intermediation.

under way, the authorities will need to turn to strengthening the financial system and fostering reintermediation. Tasks at this stage include determining the role of both private and public financial institutions, reinforcing prudential and regulatory oversight, and strengthening transparency. Market discipline has to be strengthened, as the safeguards put in place at the height of the crisis must be phased out at a safe but meaningful pace. Exit rules for failing banks will have to be enforced and legal, judicial, and institutional structures strengthened to promote an effective and competitive banking system.

Difficult decisions must be made concerning the treatment of any bank that was nationalized as a result of the crisis. Reprivatization of banks and bank assets should take place according to a carefully developed strategy. The government will have to determine how to maximize the bank's net value in light of expected future economic growth, either through rapid divestment of nationalized assets or a slower approach.[13] Similarly, the government must determine how best to increase market competition. Privatization of small banks may increase competition in the market, but it may be difficult to attract adequate buyers. A single large institution may be easier to sell at a cost of reduced competition in the market. The role of foreign investors must be defined. There is little experience to date on this stage of crisis resolution, and it remains a critical policy issue for the future.

Asset Management

The third component of crisis management is asset management and corporate debt restructuring. Banks have three options in dealing with nonperforming assets: they can restructure the loans, liquidate the loans, or sell the assets to a specialized institution for resolution. This process of asset management is inextricably intertwined with corporate restructuring. Poorly designed corporate debt restructuring can impede or even reverse progress in financial sector restructuring. The objective of this phase of crisis management is to seek arrangements that allow banks to maintain positive cash flows, deepen business relations with solvent borrowers, and encourage corporate debt restructuring.

Banks and corporations must seek the timely and orderly restructuring of corporate debt in a way that shares the burden equitably. Government action is often required to ensure that banks are not at a disadvantage in negotiating with borrowers. Formal insolvency rules often must be strengthened while, at the same time, institutions and mechanisms are established to encourage out-of-court settlement. The financial restructuring of corporate debt should proceed in the context of a broader operational restructuring of the companies, which is a prerequisite for renewed corporate profitability, new investment, access to bank credit, and economic growth. If loans cannot be restructured, they should be liquidated and any collateral foreclosed.

There are a number of institutional options for managing impaired assets. Nonperforming loans can be managed by the banks or sold to specialized asset management companies, either privately or publicly owned. While each setup has both advantages and disadvantages, experience suggests that, in general, private financial institutions can respond more quickly and efficiently. Government-owned centralized asset management companies may lack incentives for maximizing recovery values, and may be subject to political interference. On the other hand, such companies may be relatively more efficient when the size of the problem is large—hence, asset management may involve economies of scale—or the required skills are unavailable.

Implementation of Restructuring Strategies

Implementation of a wide-ranging restructuring agenda is difficult to coordinate. Crisis episodes have evolved at varying paces and with different results (see Appendix II). Such differences are caused by a variety of factors, including initial conditions, policy mix, international environment, and even unexpected exogenous events. Notwithstanding important differences among crisis cases, some general lessons have emerged. While the following practices are not always required for the successful implementation of a strategy, they do appear to make implementation relatively smoother and improve the probability of success (see Box 3 for an overview of guiding principles).

Successful restructuring efforts have used the sense of urgency created by the outbreak of the crisis to initiate quickly the reform process. Experience suggests that political resistance to reform measures is weakest early in the process when a broad consensus to address the causes of the crisis is highest. As the crisis continues, vested political or economic interests emerge or reemerge, and the reform process becomes slower and more difficult.

A second practice is the establishment of a coordinating unit or committee early in the crisis to design and oversee crisis management. To be effective, this committee should be composed of senior govern-

[13]Also, the government needs to factor in the possible pitfalls of prolonged government management of a bank, e.g., political influence, lack of managerial capacity, and so forth.

Box 3. Guiding Principles from Recent Systemic Banking Crises

- **Political support is important for successful crisis management.** Public disagreements or expressions of doubt among prominent government participants can undermine confidence in the containment and restructuring process.
- **A single, accountable authority can facilitate crisis management.** Strong leadership is needed to deal with vested interests, determine issues affecting wealth and income distribution (burden sharing), and shepherd the restructuring program through the legislative process. This authority should clearly communicate the strategy and decisions to the public.
- **Speed of intervention is essential.** Decisive steps need to be taken in the initial stages to stop creditor and depositor withdrawals. The best opportunity for significant progress is in the early stages when political support to resolve the crisis is normally at its highest.
- **A coherent and comprehensive package of measures should be implemented.** Such a package may include credible macroeconomic adjustments, emergency liquidity support, a blanket guarantee where credible, and early closure of clearly insolvent banks. Should such measures not be effective, the authorities may need to resort to administrative measures as a last alternative—securitization of deposits, lengthening of deposit maturities, or a deposit freeze.
- **Protection of depositors and other creditors will ease the restructuring process.** Where credible, a blanket guarantee can ease creditor fears and facilitate the closure of weak banks. When a blanket guarantee is not credible, the authorities may have to rely on administrative measures.
- **Burden-sharing decisions should be explicit.** Existing shareholders should be the first to either inject additional capital or lose their investment. If capital continues to be insufficient, other stakeholders need to take losses. With a blanket guarantee, the government—and thereby taxpayers—assume the losses of depositors and other creditors. Under administrative measures, depositors and other creditors typically may have to take a share of the losses.
- **The bank resolution strategy should include a thorough diagnosis and bank resolution plan.** A process of bank triage should take place. Nonviable institutions should be liquidated or merged with viable banks, and adjustment periods could be provided for viable but undercapitalized banks.
- **Bank resolution should follow a principle of equity and fair treatment.** Restructuring policies should be applied to all banks on a uniform basis, that is independent of their ownership (public, domestic private, or foreign private) or type (wholesale, retail, or niche).
- **The banking strategy should be designed to minimize the present value costs of the crisis.** The likely costs of different options should be identified, and the strategy should be based on the lowest present value of costs to the economy. Costs estimates should include an estimate of the impact of each option on the banking system, economic growth, and the sustainability of government debt.
- **Recapitalization with government funds may be justifiable in some circumstances.** Private funds should be used first, and the terms for public assistance should be uniform and transparent.
- **Asset resolution is an essential complement to bank restructuring.** An early and active involvement in impaired asset management would prevent credit discipline from eroding. A variety of institutional arrangements and techniques are available. They should be chosen in order to achieve the desired trade-off between rapid resolution and recovering the value of the impaired assets.
- **Corporate restructuring should go hand in hand with bank restructuring.** Without corporate restructuring—both financial and operational—economic activity will slow down further, and the banking system may not get out of, or fall back into, a state of distress. Corporate debt restructuring should be based on market principles and reinforce payment discipline.

ment officials that have both the responsibility and the authority to develop economic policy. Often such a group is composed of cabinet-level officials and senior staff of central banks and financial sector oversight agencies. While this committee should have responsibility for strategy design, it would normally oversee, but not implement, the strategy.

A related practice is to avoid excessive centralization of policy implementation and give government agencies the authority and responsibility to implement the restructuring strategy. Often, existing agencies with established credibility may be given such a responsibility. Existing agencies—including the central bank, the supervisory agency, the ministry of finance, and the deposit insurance agency—often have adequate staff, organization, and infrastructure. Given the need to act quickly, it may be cost effective to rely on these existing institutions. On the other hand, establishing new bodies with specialized staff may be necessary. Such new agencies may be staffed with specialists not normally available or may be given special responsibilities in the conduct of the restructuring strategy. The decision to rely on the existing institutional framework or establish new institutions will depend on the credibility and experience of existing institutions, the need for special-

ized institutions, and the speed with which new institutions can be created and staffed.

The fourth practice is communicating with the broader public. An often-neglected aspect of crisis management is the importance of strengthening market confidence by informing the public about the direction of public policy. The authorities should use all forms of communication to explain their views on the causes of the crisis, their understanding of how the crisis will be resolved, and where the reform strategy will lead. The announcements should be consistent, regular, and ideally be given by a single official spokesperson throughout the containment and restructuring efforts. This communication strategy can be effective in forging and then maintaining support for the reform efforts and can help reduce the influence of entrenched special interest groups.

Finally, the authorities can benefit from the demonstration effect of quick and successful wins. Restructuring can be a prolonged process, with difficult adjustments and costs. Reform fatigue can be reduced by taking advantage of opportunities for short-term successes. The authorities should seek to identify steps that produce some immediate results as an indication that the benefits from the reform process are not only to be achieved over the medium term, but also immediately. These steps, when placed in the context of the broader strategy, can help to mobilize support for the entire reform process.[14]

[14]This process is similar to what Hirschman (1963) has referred to as "reform mongering."

III Crisis Containment

Overview of Strategy

Irrespective of its origin, a systemic banking crisis first emerges as a liquidity problem in some or all of the banks. Large creditors, both foreign and domestic, are generally the first to leave the banking system.[15] As the outflow becomes known, smaller depositors follow quickly. Very large amounts can move in hours and, if not stopped, such runs may stall the operation of the payment system.

Liquidity and deposit withdrawals are symptoms of underlying problems but do not necessarily signal a systemic banking crisis. The authorities must form a quick judgment whether the deposit runs reflect concerns about the solvency of individual institutions, the stability of the banking system, or overall economic management. This judgment is often difficult because reliable data are scarce and quickly outdated. Moreover, wishful thinking and denial may affect the authorities' judgment. Available supervisory, central bank, and market data will give some idea of the order of magnitude of the total losses in the banking system. Such data will also indicate whether deposit withdrawals reflect flight to quality within the banking system or a more general flight from the banking system. As a banking crisis becomes systemic, creditors are no longer able to distinguish viable from nonviable banks, and confidence in the overall stability of the system is jeopardized.

A top priority in the early stages is to stabilize banking system liabilities by stopping depositor and creditor runs. Irrespective of the causes of the crisis, the first step should be to provide sufficient liquidity to the banking system to protect the payment system and give the authorities time to determine the causes of the crisis and design an appropriate policy response. Options could include some combination of protection for creditors, particularly depositors; upfront closure of clearly insolvent banks; and adoption of a comprehensive macroeconomic stabilization package. If these measures are unsuccessful, or if emergency liquidity facilities are limited by a high degree of dollarization or the inability to sterilize liquidity injections, the authorities may be forced to consider administrative measures to stop the deposit runs, such as a reduction in deposit liquidity, a full deposit freeze, or capital controls. These administrative measures are likely to cause major economic disruption and, therefore, must be viewed only as a last resort if all other measures fail.

While liquidity support is needed to protect the payment system, the authorities must seek to limit the impact of this support on prices and the exchange rate. Liquidity support can cause serious pressures on prices and the exchange rate. Accordingly, the central bank must use available monetary instruments to sterilize the growth in base money. The tightening of monetary policy is likely to result in increases in domestic interest rates. These rates must be brought down as quickly as feasible because high rates for protracted periods will severely damage bank borrowers and banks, and draw political criticism, as discussed in Section VI.

An often-neglected aspect of crisis management is the importance of strengthening market confidence by announcing the authorities' strategy. Notwithstanding the need to deal with an unfolding crisis and take a multitude of quick actions, attention should be given to making public announcements to explain the authorities' understanding of the crisis and actions the government is taking. Such announcements should be consistent and authoritative and ideally be given by a single official spokesman throughout the containment and restructuring phases. To the extent possible, a political consensus for a crisis management strategy should be forged, and the working arrangement among different government authorities and agencies defined. Clear and consistent information will help contain rumors and misinformation, avoid new panics, and prevent further erosion of private sector confidence.

Policies for Stabilization

Emergency Liquidity Support

Central bank support provides the first line of defense against liquidity shortages in banks. Illiquid

[15]Creditors can refuse to roll over lines of credit, and depositors can withdraw their funds.

Table 1. Liquidity Support During Selected Systemic Banking Crises

Country	Stock of Support[1]	Form	Notes
Ecuador	13 percent of GDP in 1998–99	Central Bank of Ecuador loans and rediscounting of bonds issued by the Deposit Guarantee Agency (AGD)	Most loans not repaid; the central bank forclosed on some fixed assets used as collateral
Indonesia	Rp 156 trillion (16 percent of GDP) in August 1998	Bank of Indonesia overdrafts	. . .
Korea	W 11.3 trillion + US$23.3 billion (2.5 percent of GDP) in December 1997	Bank of Korea deposits and loans	All loans repaid
Malaysia	RM 35 billion (13 percent of GDP) at end-January 1998	Bank Negara deposits	Most loans repaid by end-1998
Mexico	MEX$38 billion + US$3.9 billion (2+1.3 percent of GDP) in April 1995	Loans and capital injection from Banking Fund for the Protection of Savings (FOBAPROA) borrowed from the Bank of Mexico	All outstanding foreign currency loans repaid by early September 1995
Russia	Rub 105–120 billion (4 percent of GDP) between August and October 1998	Central Bank of Russia loans to 13 banks for a term of up to one year	Rub 9.3 billion repaid by end-1998
Thailand	B 1,037 billion (22 percent of GDP) in early 1999	Loans and capital injection from the Financial Institutions Development Fund (FIDF), a subentity of the Bank of Thailand	FIDF claim on financial institutions declined to B 227 billion by end-1999
Turkey	TL 6 quadrillion (3.3 percent of GDP) in September 2001	One-week repos by Savings Deposit Insurance Fund (SDIF) and state banks with the Central Bank of Turkey	One-week repos rolled over into longer-term instruments

[1]At peak.

banks should be provided necessary resources, while the authorities identify the causes of the crisis, develop an appropriate response, and begin implementing actions to deal with insolvent banks. Support can be given in a variety of ways, including uniform reductions in reserve requirements, access to overdraft facilities and discount windows, open market operations, and instruments such as repos and reverse repos (see Table 1 and Appendix II for an overview of measures taken during the containment stage). The criteria for providing such support must be uniformly applied to all banks in the system, and the rules for providing such support should be transparent. Differentiating among banks will only cause uncertainties and could worsen depositor confidence. In highly dollarized economies, the central bank's ability to provide liquidity support is constrained by the level of international reserves, and aggressive measures may be needed on bank intervention and resolution.

Conditions for central bank liquidity support in normal times, such as collateral and penalty interest rates, may need to be eased. In a systemic crisis, the value and quality of collateral may not be known, while excessive penalty rates may add to banks' distress. At the same time, the central bank must maintain its intervention rates at levels sufficiently high to make it a source of last (rather than first) resort for liquidity. Absent traditional central bank safeguards, borrowing banks should be subject instead to restrictions on their activities and heightened supervision.[16]

In principle, liquidity support should be provided only to solvent banks, but the differentiation between solvent and insolvent banks is often difficult in systemic crises because data are poor or outdated. Ideally, insolvent banks should be expeditiously intervened. Ceasing liquidity support to selected banks may not be feasible if this interrupts the payment

[16]He (2002).

system and risks triggering a wider crisis. Stopping liquidity support to the entire system would be even less feasible. Given these uncertainties, central bank support in response to a systemic crisis should be explicitly guaranteed by the government, in the understanding that any losses accrued will ultimately be carried by the government.

Special factors must be considered in highly dollarized economies. The absence of a lender of last resort may make dollarized systems more prone to runs and make runs more difficult to stop. Policymakers have tried to tap dollar resources with a variety of means, including high liquidity requirements and prearranged credit lines, and from various sources, such as the foreign bank sector. These measures may be beneficial in the case of small banking sector problems, but insufficient in the case of a systemic run.

In highly dollarized economies, the constraints on liquidity support and on depositor protection will make administrative measures more likely. These measures include securitization of bank liabilities or restrictions on deposit withdrawals, often preceded by a short bank holiday to design and prepare implementation of the measures. Nominal losses to depositors should be considered only as a last resort if all other options cannot be implemented or have failed, because nominal losses will make any reintermediation in the financial system even more difficult to achieve (Box 4).

Blanket Guarantee

A blanket guarantee can help to stop runs on banks caused by loss of depositor confidence in the overall banking system. A blanket guarantee typically consists of an announcement by the government that it will ensure that all bank liabilities except capital and subordinated debt are honored. If a limited deposit insurance system is in effect, it would have to be suspended until the blanket guarantee is removed. A blanket guarantee gives the government some breathing space to develop and start implementing a comprehensive restructuring strategy.[17]

A blanket guarantee alone will not contain a liquidity crisis. If implemented, it needs to be part of a package of credible stabilization measures. Credibility depends in the first place on the government's perceived ability to honor the guarantee. While the government need not have sufficient resources to redeem the entire stock of bank liabilities, fiscal capacity should be seen as sufficient to meet any expected calls on the guarantee. A blanket guarantee also requires strong political commitment. The government must be perceived to stand fully behind the guarantee. Public disagreements or expressions of doubt would undermine confidence in a guarantee. Legislation may be required to make it fully effective. The details of the guarantee must be clearly explained to the public. A guarantee will always be tested. When depositors and creditors see that their claims are protected even when banks are intervened, they tend to stay in the system.

A blanket guarantee may not be credible in the face of unsustainable public debt dynamics or in highly dollarized banking systems. If political uncertainties or the government's financial capacity to deal with the crisis is in doubt, a blanket guarantee will not be credible.[18] If dollarization is moderate, a guarantee could cover foreign currency liabilities in their domestic currency equivalent at market exchange rates. If dollarization is high, however, and creditors and depositors are fleeing the currency and the banking system, the government will need to show both its capacity (access to foreign reserves and lines of external credit) and willingness to handle foreign exchange withdrawals for the guarantee to be credible.

The coverage of a blanket guarantee must be clearly spelled out (see Table 2 and Appendix II for country experiences). While shareholders and subordinated debt holders should not be covered, depositors and other creditors of locally incorporated banks (including branches of foreign banks) are typically included regardless of residency criteria and currency denomination.[19] Off-balance-sheet items become covered when they enter the balance sheet.[20] Insider claims are not typically covered.[21] Important groups of near bank deposit-taking institutions may also be included.

Any guarantee involves moral hazard, which can be contained if the guarantee is properly designed and managed. A blanket guarantee is a temporary assurance to stop runs. A guarantee does not imply that banks will not require intervention but rather provides a necessary depositor and/or creditor protection for undertaking far-reaching bank restructuring without disturbing market confidence. As long as shareholders understand that they will lose their investments if the bank is improperly run, moral hazard can be contained. At the same time, various restrictions may be used to limit reckless operations by banks, such as eliminating coverage of deposits on which excessively high interest rates are paid, and imposing a fee for the guarantee.

[17]Garcia (2000b).

[18]The use of a blanket guarantee may also be constrained under different private sector involvement scenarios, especially related to nonresident creditors.

[19]Dollar deposits, however, usually would be paid out in the local currency, converted at the market exchange rate.

[20]Derivatives and other off-balance-sheet contracts cannot be excluded, if a bank continues operations, as derivatives convert into plain on-balance-sheet liabilities in case of defaults.

[21]In Indonesia, such transactions were included if contracted at "arm's length."

Box 4. Dealing with Bank Runs in Dollarized Economies

A high degree of dollarization can have a significant impact on the policy options available to address bank runs because it imposes limits on the authorities' ability to recognize and address emerging banking sector problems. This issue emerged forcefully during the recent Latin American crises but had also been a concern in earlier episodes of distress. Specific constraints imposed by dollarization include the absence of an effective lender of last resort or a blanket guarantee to respond to bank runs, which in turn can contribute to the size of the problem by increasing the speed and depth of deposit withdrawals.

Policy Environment with Dollarization

Dollarization complicates the task of addressing deposit runs, with partial dollarization creating the most challenges. For example, with dollarization there may be considerably more uncertainty about the extent of the crisis. In particular, in a partially dollarized system, with currency mismatches on the asset and liabilities side of bank balance sheets, rapid changes in the exchange rate may cause sudden changes in banks' net worth that are difficult to detect promptly. In addition, dollarization may have an impact on credit risk if companies or individuals that borrowed in dollars are unable to generate dollar earnings.

More important, dollarization severely limits the availability of policy tools. It imposes limits on the possible extent of liquidity support—there is no unlimited lender-of-last-resort facility in foreign currency. The knowledge of rigid limits on possible support payments may make bank runs in highly dollarized economies more likely to occur and, once under way, more self-sustaining. Similarly, if the banking system is sizeable, the government may well be unable to provide a credible blanket guarantee for foreign currency deposits. In partially dollarized economies, while lender-of-last-resort facilities and a blanket guarantee may be provided in domestic currency, the relatively smaller domestic monetary base (compared to nondollarized countries) might lead to a very fast and high domestic liquidity expansion and/or an even faster collapse of the exchange rate. In addition, the nature of the guarantee is inconsistent with depositors' currency preferences, and it is likely to be less effective than a guarantee in foreign currency would have been.

Partially or fully dollarized economies also face important constraints on supporting macroeconomic policies. Dollarization makes monetary policy less effective, and the need to maintain convertibility at par between local dollars and U.S. dollars removes the exchange rate as an equilibrating mechanism. Dollarization complicates fiscal support for the bank restructuring process because funds needed for any public recapitalization program may have to be committed in foreign currency to avoid asset/liability currency mismatches, and may not be consistent with a sustainable path of foreign debt.

Finally, it would appear that alternatives to lender of last resort and other safeguards—for example, the presence of foreign banks, prearranged credit lines, or sizeable earmarked reserves—are beneficial mainly in the case of smaller banking sector problems.[1] In the case of systemic runs in dollarized economies, these safeguards may not be enough: the presence of a significant share of foreign institutions does not necessarily limit the extent of bank runs (Uruguay 2002, Argentina 2002). While the perceived support of the parent typically isolates foreign subsidiaries from a systemic run at the outset of a crisis, such support may not always materialize—particularly when the crisis proves deep and the authorities' response slow, uncertain, or confiscatory. Under these circumstances, depositor runs are likely to extend to foreign banks. Prearranged credit lines may become unavailable in the time of most urgent need due to strong built-in safeguards. Sizeable earmarked reserves can stabilize expectations, but unless they extend to cover a significant portion of banking sector liabilities, there will be residual uncertainty and the perception of risk.

Modified Policies to Stop Bank Runs in Dollarized Economies

The additional constraints and limited role of safeguards call for more attention to financial sector soundness in dollarized economies. Where, in spite of such added vigilance, bank runs do occur, theory and country experiences suggest that a range of additional issues

Blanket guarantees distort market discipline and should be replaced with limited deposit insurance as conditions permit. The blanket guarantee should be removed once the banking system is sound. The market should be given advance notice of the removal (possibly 6–12 months). The guarantee may be phased out by lifting the guarantee of deposits of the more sophisticated creditors (e.g., interbank creditors followed by large creditors) and, once the system has been shown to be stable, the guarantee on all depositors.

Bank Interventions or Closures

As part of the policies for immediate stabilization, clearly insolvent or nonviable banks should be intervened or closed at an early stage. If the market suspects the existence of insolvent banks, failure to take action could undermine efforts to stabilize market expectations. Up-front takeovers or closures of insolvent banks are drastic actions that give other banks notice that the situation is serious and the authorities are taking appropriate measures. By

needs to be taken into account when formulating an appropriate strategy.

Provision of Emergency Liquidity

Liquidity support was identified as a key element in addressing systemic runs**.** In a dollarized economy, dollar liquidity support will be limited by the availability of resources, and it might be necessary to have a more clearly defined strategy on liquidity provision. **Dollar assistance** can be provided as long as sufficient dollar resources are available. Sources of liquidity can include high international reserves prior to the run (e.g., Argentina 1995); contingent facilities (swaps, repos); international financial support or bail out (e.g., Mexico 1995); or liquidity from shareholders (e.g., Uruguay 2002). Drawing down such resources can, however, have costs in terms of credibility and limitations to macroeconomic policymaking.

With limited dollar assistance possible, a decision needs to be taken whether to shift **assistance in part or fully to local currency** (e.g., Bulgaria 1996, Russia 1998, and Ecuador 1999). This option avoids the need for other stop-gap measures (see also below) and circumvents constraints on the lender of last resort as the central bank can print local currency. The expansion in the money supply and the currency mismatch, however, are likely to result in a combination of loss of international reserves, exchange rate depreciation, and inflation.

Depositor Protection

Depositor protection, in particular through a blanket guarantee, has proved to be of key importance in addressing systemic bank runs. In a dollarized economy, funding constraints emerge similar to those discussed above in the case of liquidity support.

- A guarantee of deposits in foreign currency can be effective as long as sufficient dollar backing is available. In some countries, most notably the transition economies, banking systems tended to be small enough that a full blanket guarantee of foreign currency deposits might have been an option. In most others though, reserve and fiscal constraints would undermine the credibility of a blanket guarantee issued in foreign currency.
- A blanket guarantee in local currency is unlikely to instill depositor confidence because depositors will demand their original dollars rather than local currency counterpart. Moreover, the announcement of a local currency guarantee may aggravate the crisis if depositors fear the banking system does not have sufficient dollar resources and therefore seek to buy dollars in the exchange market. Guaranteeing deposits in local currency at a fixed exchange rate (Russia 1998) implies a "haircut" to depositors when the exchange rate depreciates, and depositors are therefore likely to withdraw their funds and convert them to foreign exchange as soon as possible.
- One option for depositor protection would be to transfer deposits in failed banks to a bank (public or private) that is perceived to be sound and with significant foreign exchange holdings backed up by a corresponding amount of central bank securities to ensure liquidity. In conditions of a systemic run, such banks will only exist in rare cases.

Administrative Measures

Given the added constraints of dollarization for liquidity support and depositor protection, administrative measures are more likely to be needed. Measures mentioned in the text—securitization of deposits, the extension of deposit maturities, or the imposition of bank holidays or other restrictions on deposit withdrawals—are also available in dollarized settings. Similarly, the general principles stressed for general bank runs (e.g., uniformity of policies applied to banks) to minimize the fallout from such policies apply. These measures, while allowing some breathing space, may have a potential, however, to delay the success of longer-term reintermediation efforts.

[1]The issue is also relevant in economies with currency boards, which face similar challenges.

removing the worst banks, market distortions and excess capacity are removed from the banking system to the benefit of remaining banks.

If a credible blanket guarantee is in place, such early closures should not affect confidence negatively. The operation might be successful even lacking such a guarantee if the prevailing view of the market is that the targeted institutions are the only insolvent ones. If this is not the case, however, upfront bank takeovers or closures with losses imposed on creditors and uninsured depositors could aggravate bank runs on the banking system as a whole.[22]

Reflecting fears about these pitfalls, few countries have actually imposed losses on creditors and depositors in a systemic crisis when closing banks. While

[22]In República Bolivariana de Venezuela, the absence of a guarantee led to waves of bank failures in 1994. In the often-cited case of Indonesia (see Box 5) a poorly managed closing decision contributed to a general run on banks and required the retroactive introduction of a blanket guarantee.

Table 2. Blanket Guarantees: Overview of Their Implementation

Country	Date of Introduction	Date of Removal	Removal Deadline	Previous Deposit Insurance Arrangements	Administering Agency	Fiscal Resources (US$billion)
Finland	February 2, 1993	December 8, 1998	...	Explicit	Government Guarantee Fund	...
Indonesia	January 27, 1998	In place	Not yet announced	Implicit	Bank of Indonesia	40.0
Jamaica	January 1997	August 1998	...	Implicit	Financial Sector Adjustment Company	1.8
Japan	June 1996	In place	April 2002 partial April 2003	Explicit	Deposit Insurance Corporation	500.0
Korea	November 1997	December 2000	December 2000	Explicit	Korea Deposit Insurance Corporation	22.0
Malaysia	January 1998	In place	Not yet announced	Implicit	Danamodal	7.1
Mexico	April 1995	In place	To be phased out by 2004	Explicit	FOBAPROA	...
					Bank Savings Institute (IPAB)	
					Temporary Capitalization Program	
Sweden	December 18, 1992	July 1, 1996	...	Implicit	Bank Support Agency	...
Thailand	August 1997	In place	Not yet announced	Implicit	Financial Institutions Development Fund	34.0
Turkey	December 2000	In place	Not yet announced	Implicit	Savings Deposit Insurance Fund	...

Source: Appendix Table AII.2.

suspensions or closures of banks and other financial institutions were part of the initial measures to stabilize the banking systems in Indonesia, Korea, and Thailand, only Thailand imposed losses on some creditors of the first group of 16 suspended finance companies (near-banks). In Indonesia, the creditors and depositors of the 16 banks that were closed initially were subsequently all compensated in full (Box 5).

Administrative Measures

If a package of market-oriented stabilization measures is not feasible or fails to contain the crisis, the authorities may have to adopt administrative measures to avoid losing monetary control. Such measures include securitization of deposits, forced extension of maturities, or a deposit freeze. Administrative measures are extremely disruptive and should be used with caution. They can cause major economic and political disruption, and therefore must be viewed as a final, desperate measure to stop a run on banks if all other measures fail. Banks should be treated uniformly when administrative measures are applied. Differential treatment could worsen the banking crisis and may impede restoration of financial services. The administrative measures may cover all deposits or may allow for a small amount of funds to be withdrawn.

Securitization of bank deposits would halt the deposit drain but allow some liquidity for frozen deposits. Such securities might be used for payments or as collateral for bank loans. To the extent that negotiable government bonds are used uniformly for different categories of deposits, market price quotations could be expected to emerge. Such bonds could therefore be used at their discounted market values for selected payments. Another option would be to allow individual banks to issue their own negotiable certificates of deposits against the frozen deposits. Such negotiable certificates could also become eligible payment instruments at their discounted market values. Bank certificates would probably be too heterogeneous, however, to allow clear market prices to

Box 5. Indonesian Bank Closures—Doing It Wrong and Doing It Right

Intensified bank runs followed the closure of 16 small, deeply insolvent Indonesian banks on November 1, 1997. Partial guarantees of deposits of the closed banks, the perception that other weak banks remained in the system, a loss of confidence in the government's overall economic management, and currency flight all fueled the runs. This experience underscores the need for closures during a systemic crisis to be part of a comprehensive restructuring strategy that is clearly explained to the public, with sound macroeconomic policies in place.

A second round of closures was undertaken on March 13, 1999. This took place concurrently with the takeover of seven banks by the Indonesian Bank Restructuring Agency (IBRA), the designation of nine other banks as eligible for public contribution to recapitalization, and the announcement of fit and proper reviews of banks viewed as viable. These actions, which resulted from the assessment of the condition of private banks that began in the fall of 1998, were taken against the background of the January 1998 three-point plan of a blanket guarantee, the creation of IBRA, and the introduction of a framework for corporate restructuring.

This second round of closures involving 38 banks was managed so that most deposits were transferred over the weekend of March 13, thus resulting in minimal disruption for depositors. The interventions and closures were well publicized through the electronic and print media, with customers getting full information about how to access their funds at banks receiving the transferred deposits. The combination of decisive action clearly communicated to the public, the existence of a credible guarantee, and evidence of a comprehensive approach to the private banks all contributed to the orderly exit of insolvent banks with minimal disruption.

emerge (compared to government bonds) but could give individual banks flexibility to redeem them early and thus limit the fiscal burden.

Extension of deposit maturities is an alternative to securitization. While deposits with extended maturities are frozen into the banking system and not converted into negotiable instruments, measures should be adopted to improve the functioning of the payment system under such a deposit freeze. Checks could be issued on frozen deposits to give them full mobility within the banking system, and limited weekly or monthly withdrawals could also be allowed. This way individuals and corporations with frozen balances could still carry out transactions. The authorities should be aware that mobility within the system may lead to a flight to quality, as depositors move frozen deposits to the strongest banks in the system.

Undefined limitations on deposit withdrawals without preestablished rules of the game—e.g., freezes without specified minimum weekly or monthly withdrawal amounts, or outright bank holidays—are an unstable solution to deposit runs and should be avoided. If implemented, they should only be in place for limited time periods, to buy the authorities time to work out a permanent solution. Also, exit policies should be prepared in advance. The cases of Ecuador in 1998 (Box 6) and Argentina in 2002 highlight the disruptive effects of prolonged deposit freezes.

The introduction of capital or exchange controls may slow a run on the currency and the liability base of the banking system. For such controls to be effective, they must be comprehensive, fully enforced, and part of a broader policy package. Experience indicates that any beneficial effects of capital controls are bound to be temporary because they encourage circumvention and discourage legitimate transactions. They may also negatively affect market confidence. Moreover, if the private sector is shifting its portfolio from local currency to foreign-currency assets, controls would have to prohibit the holding of foreign currency, a measure that has not been successful in the past. In practice, few countries have imposed such controls during banking crises.[23]

Burden Sharing and Depositor Protection

One often politically contentious issue in banking crisis management and resolution relates to burden sharing. A banking crisis reflects losses (many concealed) to banks and their borrowers, which have to be shared by the different stakeholders, that is, by shareholders, holders of subordinated debt, depositors, other creditors, borrowers, and the government—ultimately the taxpayers. Shareholders and subordinated debt holders should absorb losses first. Losses, however, typically exceed their investment, often by very large amounts. Therefore, losses will have to be covered by some combination of credi-

[23]In Malaysia, capital controls introduced in September 1998 contributed to the containment of capital outflows and the stabilization of the new sharply depreciated fixed exchange rate. In Thailand, exchange controls introduced in June 1997 to support the exchange rate were not successful in preventing the collapse of the baht and played no role in dealing with the subsequent banking problems.

Box 6. Deposit Freeze: The Case of Ecuador

Early in 1999, confidence in the Ecuadoran banks deteriorated rapidly. The closure of one bank in August 1998, followed by the intervention of the country's largest bank in December 1998, and the failure of five small banks during the first two months of 1999 led to depositor unrest. Loss of confidence was exacerbated by the sluggishness of the newly created Deposit Guarantee Agency in starting payments under the blanket deposit guarantee approved in December 1998. Large capital outflows and historically low oil prices resulted in a depreciation of the local currency by 54 percent during 1998 and by a further 200 percent during 1999.

Against this background, the country's second largest bank became illiquid. Reflecting the fear of a systemic meltdown, on March 5, 1999 the government declared a banking holiday rather than close the bank. The ensuing general strike resulted in the paralysis of the country's economic activity. Private sector confidence worsened, leading to pressures on the currency, and the government decided to freeze most of the country's deposits before reopening the banks on March 11, 1999.

When the banks reopened, there were withdrawal pressures, but this was limited by the deposit freeze and the general strike. The freeze accomplished its immediate objective of relieving pressure on the banks; however, their financial position remained precarious.

Efficiency of the Response to the Runs

Political pressures led to the progressive easing of the freeze: exemptions were declared for pensioners and seriously ill people; the unfreezing of dollar deposits was accelerated by six months; and banks were allowed to issue negotiable certificates of frozen deposits, which could be used as payment for durable goods, real estate, and loan cancellation. As the freeze was progressively eased, deposit runs reemerged. The pressure from the easing of the deposit freeze resulted in a second currency crisis in the last months of 1999, prompted by the default on external debt in September 1999.

Post-Run Developments

Faced with an intensifying currency crisis, the authorities opted for dollarization in January 2000. Dollarization, together with the announcement of an agreement with the IMF for a Stand-By Arrangement, permitted the unfreezing of most time deposits in March 2000. Most private banks engaged in an aggressive campaign to retain time deposits. As a result, the banking system was able to retain most of the liberated deposits, although some flight to quality occurred.

tors, depositors, and the government. Legislation normally stipulates preferences for the liquidation of different classes of creditors and depositors.[24] What may work for individual banks in normal times, however, may not work in a systemic situation.

Allocation of nominal losses to depositors and other creditors is very delicate in a weak banking system, as it can exacerbate private sector fears. Creditors and depositors of banks perceived to be weak will run to stronger banks—or from the domestic banking system altogether. Furthermore, nominal loss sharing is potentially difficult because it could run counter to earlier policy assurances, implicit or explicit, or simply affect too many politically influential interests. The most common option for burden sharing is to reduce the real value of liabilities through high inflation and negative interest rates in real terms.

Where a government cannot extend a credible blanket guarantee and the run cannot be stemmed, alternative measures will be required. Such measures alter the burden sharing dramatically compared to the blanket guarantee because, typically, the depositors are hit the hardest. As discussed above, measures could include securitization of deposits, some form of withdrawal restriction, such as forced lengthening of maturities, a deposit freeze, or a uniform reduction in nominal balances. Common to these types of measures is that the exact outcome of the loss-sharing arrangement is not explicitly known upfront but will emerge over time.

[24]Losses would be allocated in accordance with the legal preferences stipulated in banking, bankruptcy, and deposit insurance laws, as applicable: shareholders typically lose their capital, and creditors and depositors lose all or part of their claims according to a legally stipulated ranking.

IV Bank Restructuring

Overview of Strategy

The main objective of the restructuring strategy is to restore individual banks and the system to profitability and solvency. The strategy entails strengthening viable banks, improving the operating environment for all banks, and resolving those banks that are insolvent or nonviable. Bank restructuring is a multiyear process, requiring the establishment or revision of laws and institutions; the development of strategies to liquidate, merge, or recapitalize banks; the restructuring and recovery of bank assets; and the establishment of positive cash flows. Systemic bank restructuring can lead to major downsizing of and ownership changes in the system.

Legal and Institutional Framework[25]

The establishment of a single high-level authority, charged with ensuring consistency among government agencies, will strengthen the restructuring strategy. This authority should be composed of cabinet-level officials and senior staff of financial sector oversight agencies and, to be effective, should have strong political commitment. Experience has shown that consistent implementation of a complex restructuring process is difficult in the absence of a single authority with a clear mandate. This authority should delegate most implementation issues to appropriate agencies.

If feasible, existing agencies with established credibility may be given responsibly for implementing the restructuring strategy. Such agencies, including the central bank, the supervisory agency, the ministry of finance, and the deposit insurance agency, have the necessary staff, organization, and infrastructure. Given the need to act quickly, it may be cost effective to rely on these existing institutions. Establishment of new, specialized bodies in charge of implementing systemic bank restructuring can be distracting and time consuming.

If existing agencies have limited credibility or lack specialized skills, specialized institutions may need to be established. Examples include the creation of a bank-restructuring agency, when the government must take over and temporarily run and restructure intervened banks, or a centralized asset management company (see Appendix II). In this case, the specialized agencies must be given a clear mandate and may be given a limited life. Care must be taken to ensure that the new agencies have full political support, adequate staff, and a sufficient budget to carry out their responsibilities.

Legal frameworks for bank intervention and resolution should be reviewed and, where necessary, amended—possibly through emergency legislation. Changes to laws and regulations may be needed, so as to

- facilitate intervention in weak banks and write down shareholder capital;[26]
- regulate asset valuation and transfers of property and creditor rights in support of the bank restructuring strategy;
- update accounting and auditing rules, and loan and collateral valuation rules; and
- ensure the fitness and propriety of owners and managers of banks, the eligibility of foreign investors, the entry criteria for new banks, and limitations on foreign exchange exposures, connected lending, and loan concentration.

[25]Legal issues in bank restructuring are extremely complex and depend to a considerable degree on the legal and institutional framework in each country. This topic is too broad to be covered adequately in this paper. The International Monetary Fund and World Bank staff are writing jointly a report on the legal and institutional framework for bank restructuring.

[26]In some countries, supervisors have been unable to take over insolvent banks because shareholders have been able to impede loss recognition and capital dilution, thus stalling the restructuring process. The process can be hindered by any combination of issues, including lack of authority to intervene banks, deficient operational definitions of insolvency, a judicial stay on interventions, or a lack of protection for supervisors from personal lawsuits.

Other legal or regulatory reforms might be required to

- improve loan recovery powers of banks;
- facilitate the transfer of assets between institutions;
- facilitate debt-equity swaps;
- strengthen bankruptcy laws, including improving the balance between debtor and creditor rights;
- strengthen rules and procedures for foreclosure of collateral; and
- strengthen legislation on contracts, property, and companies.

Given that many such reforms are potentially very extensive and time consuming, reforms during the crisis should focus on crucial aspects only.

The judiciary may need to be strengthened if it does not have the experience or capacity to address adequately the bank restructuring process. To ensure speed and quality of bank restructuring, many countries have set up specialized courts to deal with bank and corporate restructuring. There may also be a need to set up arbitration panels and other facilities for extrajudicial settlement of financial disputes.

Burden Sharing and Loss Allocation

Once a bank has been intervened by the government, the burden sharing issues move to the asset side of its balance sheet. The government now has responsibility for the bank and its assets and must use different resolution or liquidation options to protect asset values and minimize losses. The bank may be kept open in full or in part under new management or liquidated. Regardless of the resolution pursued, burden sharing becomes an issue between government and private bank borrowers. Accordingly, banks' credit and other asset portfolios must be managed as efficiently as possible.

New private investors brought in to recapitalize weak banks cannot be expected to absorb existing losses. In a systemic crisis, banks seldom have much franchise value, and new private investors are unlikely to assume the losses of insolvent banks. Moreover, most banks face major uncertainties regarding their own viability. Existing losses must, therefore, be assumed by existing private stakeholders up to their legal liability limits, and the remainder by the government. Allocation of losses arising from future valuation changes of existing assets is often negotiated between the new investor and the government before acquisition.

Bank Restructuring Options

Diagnosing Banks

The bank restructuring strategy begins with a diagnosis of the financial condition of individual banks. The first task is to identify the size and distribution of bank losses. As supervisory data may be outdated and may not reflect the full economic impact of the crisis, supervisors may attempt to update available information based on uniform valuation criteria. The supervisors will also examine information on banks' ownership structures—public or private, foreign or domestic, concentrated or dispersed—to help determine the scope for upfront support from existing or potential new private owners.

As quickly as possible, banks should be classified using uniform indicators. A frequently used measure of solvency is the risk-weighted Basel capital adequacy ratio (CAR). In a crisis, however, the accurate measurement of capital is usually limited by problems with loan valuation and classification, and weak provisioning rules. International accounting or prudential rules provide little operational guidance. Other indicators may be used, including gearing ratios or banks' reliance on central bank credit.

When data limitations delay bank evaluation, supervisors have to develop the needed information to determine bank viability (Box 7). As described earlier, a bank is viable if it can remain profitable and earn a competitive return on equity over the medium term, and if the shareholders are committed and able to support the bank. Supervisors may require banks to produce forward-looking business plans based on common assumptions and worse case–scenario analyses. Viability may need to be confirmed with simple stress testing of banks' loan portfolios and balance sheets under different exchange rate, interest rate, and economic growth assumptions; and with simulations of banks' core profitability after excluding credit and other losses directly related to the crisis. Supervisors will also have to examine the viability of individual banks in the context of expected future volume of activity that the overall economy can absorb.

Supervisors may use special audits by independent external auditors to ensure uniformity and impartiality. Such audits may be warranted where insider lending or government-directed lending has been prevalent or when the supervisors cannot meet the sudden demand for on-site inspections. Clear and uniform guidelines are needed to protect the auditing process from excessive bias toward caution because auditors tend to use "liquidation" rather than "going concern" values in order to protect their own reputations. Special audits are more useful later on than earlier in a

Box 7. Difficulties in the Identification of Bank Solvency

- **Identifying the size and distribution of bank losses is critical for developing a crisis response** and a bank restructuring strategy. A banking crisis involves losses and erosion of capital for individual banks. The identification of bank losses is extremely difficult, especially early on in a crisis because valuation procedures may be weak, and bankers may have strong incentives to cover up losses.
- **Bank liabilities are normally relatively easy to value.** But there may be liabilities held off banks' balance sheets and liabilities of branches or subsidiaries at home and abroad that may have to be included. There may also be liabilities that are unrecorded.
- **The valuation of loan portfolios is particularly difficult.** There are no market prices for loans, especially for nonperforming loans. Loan valuation is typically based on loan classification and provisioning rules, which tend to capture values with a lag—there is no true value of a nonperforming loan.
- **Loan classification and provisioning rules often are inadequate and need to be reformed.** But reforms will take time to become effective because the data is collected by banks, which will need time to change their accounting and internal controls systems.
- **There is typically widespread denial of the severity of the situation.** It is difficult for bankers and officials alike to accept the full scope and speed of deterioration in a banking crisis because everyone involved first assumes that the problems are temporary. This leads to underprovisioning.
- **The value of a bank and its capital adequacy are difficult to establish.** Lags in the valuation of banks' loan portfolios as underlying economic conditions deteriorate lead to overvaluation of capital. Low-quality assets and creative accounting may further inflate capital numbers and adequacy ratios.
- **Policy decisions typically have to be based on whatever data are available to supervisors.** The supervisors are typically the only ones with data on individual banks and an overall view of the financial condition of the system.
- **Bankers and external auditors may have strong incentives to obscure and delay the process:** bankers, because they may lose their bank and have irregularities to conceal, and external auditors, because their analysis is based on historical data and they may be defensive of numbers that they have certified.

crisis because the audits ensure uniformity and impartially but not timely information. Ideally, they should be verified through second opinions.

The appropriate valuation of government bonds held by banks has become an important element in assessing the financial conditions of banks. Banks in emerging market countries often hold significant amounts of government bonds. As the financial condition of the government deteriorates, the market value of the bonds may also deteriorate. When government bonds sell at deep discounts in the market, marking to market such bonds could make the banking system insolvent and recapitalization costly. The private sector may not have sufficient resources to offset the value loss from the deterioration in the value of government bonds. On the other hand, government finances may not be able to support the issuance of additional bonds for bank recapitalization.

The alternatives are not attractive. A significant portion of the banking system could be closed and liquidated. Alternatively, government bonds could be placed in the investment account of the banks and held at face value. A third option might be to distinguish between existing bond holdings, which could be marked to market, and new bonds issued to recapitalize banks to be held at face value. Finally, the requirement to mark to market securities could be phased in over a long period (e.g., five years) to allow shareholders time to recapitalize their bank. Whatever the solution, the valuation of government bonds should be uniform and transparent.

Once the diagnosis is complete, banks can be classified into three main categories based on their CARs, their viability, or their liquidity shortfalls as well as other supervisory data. The three categories of banks are typically viable and meeting their legal CAR and other regulatory requirements, nonviable and insolvent, and viable but undercapitalized. In the latter classification, an additional assessment will be needed on the ability of the existing shareholders to recapitalize their bank within an acceptable period or, alternatively, whether public funding should be considered. This classification is highly sensitive and should not be announced to the public but rather used by the supervisory authorities in designing restructuring options (Box 8).

Dealing with Viable but Undercapitalized Banks

All solvent but undercapitalized banks should be required to present time-bound restructuring plans—showing how they intend to remain profitable and solvent—and should be subject to intensive report-

Box 8. How to Assess the Financial Condition of Banks: The Case of Turkey

In Turkey, assessment of the capital needs of private banks was done by external auditors and linked to their audited financial statements as of end-December 2001. While potential conflict of interest was an issue, the banks' own external auditors were considered the best suited because of their in-depth knowledge of the respective banks and their ability to carry out the assessments more quickly and at a lower cost than new, outside auditors.

The banking supervisory agency issued detailed instructions on supplementary reporting requirements to be prepared by bank management and certified by the auditors. The supplementary reporting requirements focused on the following four areas:

Capital adequacy: Detailed information was requested about all components of assets and risk weightings that had been applied, including any recent injection of liquid capital.

Credits and other receivables: Since this constituted the single greatest risk for most of the banks, extensive disclosure of information had been required on both an individual and a group loan basis such as: borrowers' performance; ability and willingness to pay; risk classification (five categories) and provisions made; and auditors' verification that the credit risks had been assessed in either 75 percent of the loan portfolio or the 200 largest exposures, whichever was the highest.

Exposures to related parties: Banks were required to disclose all related party balances and transactions of entities and individuals both onshore and offshore. Auditors were required to confirm completeness and to review the pricing and economic substance of all such transactions.

Valuation issues: The instructions required an extensive listing of transactions and testing of rates, prices, and legal documents to assess the economic substance and legal form of transactions. Standards were given to identify and correct accidental or deliberate off-market pricing, such as for the valuation of securities and foreign exchange accounts. The auditors were also told to be on the lookout for window dressing and fictitious transactions.

To monitor the assessments of the external auditors, the supervisory agency appointed independent reviewers who were asked to verify that the banks and the external auditors had carried out the assessments according to the above regulations and guidelines.

ing and monitoring.[27] If bankers are not able to present such plans, if they fail to comply with them, or if the bank becomes insolvent, it should be intervened. While all banks should be required to meet prudential requirements, shareholders may not be able to recapitalize their bank immediately. In this case, the recapitalization schedule could be phased in.[28] Banks operating in this fashion should be required to suspend dividend and profit distributions until the required level of capital has been restored.

Private banks should be required to recapitalize from private sources according to uniform rules. Prudential rules could call either for gradual implementation of loan loss provisions or a temporary acceptance of reduced capital ratios.[29] Phasing in capital allows for a more transparent and public evaluation of the banking system. Rules on recapitalization should also identify acceptable instruments of capital, eligible investors, and the timetable for the contributions. The recapitalization timetable must consider the reality that a very limited pool of capital may be immediately available for equity investment. Whether the authorities opt to phase in capital or provisioning requirements, the policies must be fully transparent and announced to the market.

Dealing with Insolvent and Nonviable Banks

All insolvent and nonviable banks should be intervened and resolved as soon as possible to stop their losses. If insolvent banks stay open without financial and operational restructuring, losses are likely to grow. Allowing insolvent banks to continue operations can distort competition, result in perverse incentives for other banks, and increase the eventual cost of restructuring.

Intervened banks should be passed to the agency responsible for bank resolution, which will decide on resolution options. Options include determining whether to close a bank or to keep it open. If the bank is closed, decisions need to be made on how to manage or sell assets and liabilities. If the bank is kept open, the restructuring agency must decide on a range of alternatives, including whether to recapital-

[27]Undercapitalized banks are those operating below the legal minimum CAR. Insolvency is often defined as operating with a CAR of zero or less. In some countries with prompt corrective action regimes, the law may oblige supervisors to intervene in a bank when its CAR falls below a certain threshold (2 percent in some countries).

[28]This gradual but monitored approach is not forbearance. Forbearance is defined as permitting banks to operate below prudential norms without a plan or without close monitoring.

[29]The former method was used in Thailand, the latter in Indonesia and Korea.

ize the bank with public funds; to offer it for immediate sale as is, possibly with government guarantees on certain assets values; or to merge it with another sound public bank.

The choice of resolution options will depend in part on the availability of resources and should be guided by least-cost criteria for the economy. The government should assess the likely costs of different options and choose the combination of options with the lowest present value costs. Cost estimates, however, should be evaluated in a medium-term perspective and include an estimate of the impact of any government-financed efforts on the sustainability of government debt. The appropriate level of publicly financed recapitalization will have to be evaluated in the context of the country's sustainable level of public debt.

Intervened banks may be subject to operational restructuring to reduce their expenses and losses. The authorities must recognize that intervening in a bank will not stop losses, so any intervention must be accompanied by measures to control the loss-making activities.

Management and senior staff may have to be changed, risk management systems improved, branches closed, specialized functions and subsidiaries spun off, and staff size substantially reduced. At the same time, bank assets must be managed as efficiently as possible so as to minimize credit losses; for this, the best staff must be retained and, if needed, new specialist staff hired. The aim should be to bring the bank back to profitability as soon as possible.

Deposits in closed banks should be transferred to remaining sound banks (public or private). Even if a blanket guarantee is in place, depositor payout could be limited so that depositors suffer little, if any, disruption of their financial services. Transferred liabilities should be accompanied by assets of equivalent value, often government bonds, given the likely shortfall of good quality bank assets relative to deposits. The assets also need to generate sufficient yield to enable an acquiring bank to make interest payments on the transferred deposits.

Recapitalization of Banks with Public Funds

Public capital support of private banks may be justified in some situations. While public capital, in principle, should not be used to support private banks, the authorities may help private owners achieve a least-cost resolution. In this case, injection of new funds by the shareholders could be supplemented with public funds. Public participation in the recapitalization may be justified in cases where the worst private banks already have been intervened and the remaining system does not have access to sufficient capital. Under these circumstances, the shareholders and managers must be fit and proper, and not the cause of the banking problems. Public funds may also be justified when the public sector causes the banking problems through policies directly affecting the bank, such as sovereign debt restructuring or imposition of contract modifications. In this case, the issuance of bonds to compensate banks for their losses could be considered.

A successful public solvency support scheme should be uniform and transparent. Such a scheme should not be considered early in the restructuring process but, rather, as a last resort when it becomes clear that restoration of confidence and viability in the banking system will not be achieved without such support from the government or across-the-board nationalization.

A public solvency support scheme should be available to all banks and should be designed to provide bank owners with incentives to raise private capital before turning to government funds. Government equity could be contingent on such factors as new private equity in a set proportion; the government's having preferential shares; the government's having representation on banks' boards; government approval of bank's management; and government veto rights on certain decisions. Such schemes have been successful in Thailand in mid-1998 and in Turkey in early 2002. Examples of safeguards used in Turkey are provided in Box 9.

Once a decision is made to recapitalize a bank with public funds, the appropriate instruments must be designed. An increase in paid-in capital (Tier I capital) is preferred because it both improves capital ratios and provides income. The government may not wish to have an ownership stake in the banks, however, and may opt to inject Tier II capital or purchase subordinated debt of the bank.[30] If the government does not take an ownership share in the bank, however, it should hold shares that convert to ownership if the bank fails to implement its restructuring plan or if the bank's financial position sharply deteriorates.

Returning the Banking System to Normal

Once the banking system has stabilized and both corporate restructuring and asset resolution are under way, the authorities must turn to strengthening the financial system and increasing financial intermediation. Returning levels of financial intermedia-

[30]For a detailed discussion of recapitalization instruments see Enoch, Garcia, and Sundararajan (2002) and Dziobek (1998).

Box 9. Elements of the Public Recapitalization Program in Turkey

Public sector recapitalization programs must be designed in light of specific circumstances and government policies. Not all programs will be alike. The availability of shareholder resources, the extent of recapitalization needed, and the legal structure will all affect program design. In 2001, Turkey initiated a public sector recapitalization program with the following criteria and conditions:

Last resort: A public solvency support scheme should be viewed as a last option when there are no other alternatives available.

Private participation: For a bank to be eligible for public support, existing shareholders or new private investors must be willing to inject at least half of the Tier 1 capital needed.

Operational restructuring: To qualify for support, banks must present an acceptable operational restructuring plan, including measures to strengthen internal control, enhance risk management, increase revenues, cut costs, and deal with nonperforming loans.

No bailout of existing shareholders: Capital needs in banks must be thoroughly assessed, and all losses must be imposed on existing shareholders before public funds are injected. The assessment of capital needs should be verified by a third party. Preferably, the shares held by the government should have preferred status to shares held by the old shareholders. Thus, if there are additional losses over a given period of time, say six months, those losses should be absorbed by the old shareholders.

Positive net worth: To be eligible for support, a bank must have a positive net worth. If not, existing owners or new private investors must bring the CAR to above zero before a bank is eligible for public support.

Shareholders' rights: The government should have the right to appoint at least one board member, irrespective of its capital contribution. Such board member(s), who should have documented experience in banking, should have veto powers on matters material to the soundness of the bank.

Price: The government should pay net book value for the shares.

Buy backs: When the government wants to sell its shares, existing shareholders should have the right of first refusal for a given period, say, two years. The price should be whichever is the highest of the government's investment cost (principal and interest), net book value, or market price (including third party offers).

Pledge: To protect the public investment, majority shareholders in the bank should be required to pledge as collateral to the government shares held in the bank equal to the government's capital contribution. The shares can be used as collateral in the event the government faces losses when it sells its shares in the bank.

Payment: The government should pay for the shares in tradable government bonds issued on market terms.

Convertibility: If the government provides Tier 2 capital, this should automatically be converted into Tier 1 capital if the CAR falls below a certain ratio, say 8 percent, and if the private shareholders do not immediately bring it up to above 8 percent.

tion to historic levels has proved difficult in many postcrisis economies. Banks are often risk-averse and are seeking to rebuild depleted reserves. Often banks must implement costly restructuring programs. Efforts to enhance intermediation may require reinforcing prudential and regulatory oversight and improving transparency. Market discipline will need to be strengthened because the safeguards put in place at the height of the crisis must be phased out at a safe but meaningful pace. Exit rules for failing banks will have to be enforced and legal, judicial, and institutional structures strengthened to promote an effective and competitive banking system.

Key measures will have to be implemented to ensure a stable macroeconomic framework. Maintaining such a framework is essential for restructuring the banking system. Market forces operate most efficiently under stable macroeconomic conditions. Successful asset sales, recovery of financial intermediation, and economic growth depend on comprehensive and coherent monetary and fiscal policies.

Reforms will be needed to refocus the function and activities of institutions and to strengthen the prudential and supervisory structure. The roles of institutions change during a crisis, as bank and asset resolution become of critical importance. As the crisis subsides, institutions must be refocused to return to their traditional functions. If new institutions have been created, they must be either phased out or refocused. Similarly, banking regulation and supervision and exit procedures should be strengthened. Regulatory and supervisory arrangements can now be brought into line with good international practices. Formal forbearance can be ended with normal prudential regulations phased in over a specified period. Accounting, auditing, and disclosure procedures that strengthen market discipline can be implemented.

Restoring market liquidity is also key to increasing the resilience of the banking system after a crisis because the liquidity properties of assets and liabilities ultimately depend on the country's liquidity infrastructure and the resulting systemic liquidity. Pre-

vailing monetary arrangements, design aspects of central bank instruments, and arrangements for payments and money market operations bear directly on banks' abilities to manage short-term liquidity. Moreover, if special-purpose government bonds have been issued to recapitalize banks, the liquidity of these bonds also influences banks' ability to trade them efficiently in the market. High transaction costs resulting from rigid instrument design and trading rules can discourage trades and contribute to price volatility.

If a blanket guarantee is in place, it can be replaced with limited deposit insurance and strict exit rules. The blanket guarantee may be removed as soon as banks have been restructured to soundness, and the guarantee can be lifted without causing deposit shifts. As discussed previously, the blanket guarantee may be lifted in stages, removing protection first from deposits of the most sophisticated creditors. At the same time, the market should be given advance notice, possibly 6–12 months so that everyone is fully aware of the process. A new deposit insurance system, which may require new legislation, should be designed on the basis of good practices as to coverage, funding, and administration.[31] After a deposit insurance system has been introduced, strict exit rules should apply to any failing bank and losses distributed to creditors and depositors as called for under the deposit insurance system. Accordingly, the blanket guarantee must not be lifted until all banks are out of imminent danger.

Difficult decisions must be made concerning the treatment of government-owned banks. Privatization of banks and bank assets should take place according to a carefully developed strategy. The government will have to analyze the pace of divestment that maximizes recovery value. Rapid asset sales may yield less than sales later in the process. Similarly, the government will have to determine how best to increase competition and reduce the risk of mismanagement. Privatization of small banks may increase competition in the market, but it may be difficult to find sufficient buyers. Mergers or privatization of a single large institution may be easier, at the cost of reduced competition in the market. The role of foreign investors must also be defined.

[31]Garcia (2000b).

V Asset Management and Corporate Debt Restructuring

Overview of Strategy

The third component of crisis management is asset management and corporate debt restructuring. Corporate and financial sector restructuring are inextricably intertwined, being two sides of the same issue. A key aspect of this process is the orderly transfer of ownership and the management of weak assets. Strengthening this process may include both legal and institutional reforms. For this reason, resolution of the banking system issues must be carried out in conjunction with resolution of corporate sector issues. Banks have three options in dealing with nonperforming assets: they can restructure them, liquidate them, or sell them to a specialized institution for resolution. The objective of this component of crisis management efforts is to seek arrangements that allow banks to maintain positive cash flows and deepen business relations with solvent borrowers.

Experience to date suggests that these activities are the most protracted element of crisis resolution. Despite important advances in asset management, corporate debt levels in most postcrisis countries have not come down, and corporate restructuring has proved to be a long-term process. In Thailand, debt levels have fallen from postcrisis peaks but remain high, while profitability and corporate cash flows have only slowly stabilized. In Korea, progress has been made in corporate restructuring for companies outside the Corporate Restructuring Agreement (see below), but the financial conditions of corporations under workout agreements remain dire. Significant corporate restructuring is just now under way in more recent crisis cases such as Ecuador and Turkey.

Managing Nonperforming Assets

The objective in managing nonperforming loans is to maximize their value and minimize bank losses and capital erosion. This process is complex and requires a supporting legal and institutional environment and specialized skills. Techniques for managing assets may include restructuring of loan terms, disposition through auctions or other sales methods (which transfers management decisions to the purchaser), and liquidations through court or administrative procedures. Asset sales are often at the core of the asset resolution process. Many techniques, traditional and more sophisticated, have been developed for this purpose, but little empirical work has been done to evaluate their relative effectiveness.

There are a number of institutional options for managing impaired assets (Figure 2). Banks may manage them directly or sell them to a specialized asset management company, either privately or publicly owned. Specialized institutions are necessary when the management of nonperforming loans interferes with the daily running of the bank or when specialized skills are needed. While each institutional setup has advantages and disadvantages, experience suggests that, in general, private financial institutions can respond quickly and efficiently whereas government-owned centralized asset management companies may be relatively more efficient when the size of the problem is large, when special powers for asset resolution are needed, or when the required skills are scarce.[32]

Decentralized Arrangements

Decentralized arrangements are those for which management responsibility remains with private sector institutions. For open institutions, the choice is between managing within the existing structure and creating a specialized subsidiary or private asset management company. For closed institutions, the authorities may transfer assets to a resolution trust managed by a private financial institution for a fee. Nonperforming loans of borrowers who are likely to honor their loan contracts, perhaps after renegotiation, and small loans should remain in the bank. Banks may transfer other nonperforming loans to their asset management companies for more efficient management and resolution. By involving specialists, the asset management company can focus on

[32]Klingebiel (2000) and Woo (2002).

Figure 2. Options for Asset Management

Mandate	Institutional Arrangement: Decentralized	Institutional Arrangement: Centralized
Narrow	Private asset management companies Private resolution trusts	Rapid resolution vehicles (U.S. Resolution Trust Corporation; Financial Sector Restructuring Authority, Thailand)
Broad	Bank workout units Private resolution trusts	Broad mandate centralized asset management companies (Danaharta, Malaysia; Korean Asset Management Corporation)

rapid loan workouts and more effective corporate restructuring.

While loan workouts are a normal aspect of banking business, setting up separate asset management companies becomes necessary if managing nonperforming loans is becoming a dominant part of the banking business and interfering with the daily running of the bank. The handling of bad assets may require skills that are not normally available to a great extent in a bank: loan workout specialists, real estate experts, liquidation experts, and specialized lawyers. Banks, however, may be reluctant to set up one or more separate asset management companies because it may force earlier loss recognition and pressures on their CARs.

The authorities can facilitate the establishment of asset management companies. Legal obstacles should be removed to allow for clean transfers of titles (and the associated priority) in asset transactions and transfers without requiring prior permission from debtors—an asset management company should be able to legally stand in for the bank.[33] Institutional rigidities regarding incorporation can be minimized, and tax neutrality for asset transfers must be assured. The sooner these companies are up and running and contributing to effective corporate restructuring, the sooner the bank, the economy at large, and ultimately the government will benefit.

Centralized Arrangements

An alternative is the establishment of centralized asset management companies. These arrangements have both advantages and disadvantages, the weight of each depending on specific country circumstances. In general, centralized companies have been set up when asset management within the private sector is not a feasible option (for instance, because the required skills are lacking), or when there is evidence that the problem may be too large in terms of share of failed banks or nonperforming loans to be dealt with effectively in a decentralized manner.

There are two broad categories of centralized asset management companies: those with narrow mandates and those with expanded mandates. The former take over and liquidate assets from closed institutions and are typically focused on rapid asset disposition. The latter purchase assets from ongoing concerns with a view to expediting corporate restructuring.[34] Sunset clauses are often introduced in both cases to reduce concerns about asset warehousing. There are trade-offs, however, when determining the exact lifespan of the institution. A centralized asset management company with a short lifespan will seek to sell assets immediately, thereby possibly accepting very low "fire sale" prices. A longer lifespan may enable the company to manage and package the assets to increase their value, seek suitable investors, and sell the assets gradually into the mar-

[33]In some legal jurisdictions, the asset management company may have to be a financial institution in order to accept transferred assets, although it should not be allowed to collect deposits or extend loans.

[34]Centralized asset management companies with an expanded mandate have also been set up in the past to facilitate the privatization of government-owned banks and intervened banks.

Box 10. Appropriate Design Features of a Centralized Asset Management Company

If it is decided that a centralized asset management company will be set up, a number of design features need to be put in place to enhance the effectiveness of its operations.[1] These include operational and budgetary independence, legal protection of its staff, governance and internal controls, and clear operational rules.

Independence: These companies are prone to strong political pressures on behalf of borrowers. To ensure effectiveness and efficiency, the company should be established as an autonomous entity, perhaps under a special law, with the flexibility to hire the best available professionals and advisory firms, both domestically and abroad and to make independent decision on purchases, restructuring and disposition of assets. Moreover, to support resolution efforts, the staff should be legally protected from litigation for actions undertaken in good faith.

Funding: There should be independence from the budget appropriations process to limit political interference by inhibiting the company in terms of staffing and other resources. At the same time, these companies should be sufficiently funded to perform their intended functions. The operating budget should be separate from funding allocated for asset takeover. Funding could either come from the proceeds of government bond issues or raised by the company's own bond issues backed by the government, with the proviso that whenever a company realizes losses these be directly absorbed by the budget. If the company issues its own bonds, it is important, in countries where the government bond market is small, that these bonds do not lead to segmentation in the secondary markets for government and government-backed bonds. So bonds issued by the these companies should carry the same characteristics as existing government bonds, and any issues should be closely coordinated with other government bond issues.

Legal basis: The legal basis of a centralized asset management company is critical to its success. One issue of particular importance concerns the transfer of assets. The legal basis of the company should provide for clear transfers of titles and priority in the transactions of assets. Similarly, legal obstacles for the transfer of assets, such as requiring the permission of the debtors before the transfer of loans can be effected, should be removed. If need be, these companies could benefit from special legal and administrative powers for loan recovery and resolution when either the existing legal system is not equipped to deal with the magnitude of the nonperforming assets and endeavors to reform the system are overly time consuming, or when the authorities want to restrict certain legal powers of creditors to just these companies. Such powers were instituted and successfully applied in Malaysia but have not been feasible in many other countries due to resistance from vested borrower interests.

Accountability, transparency, and governance:[2] A centralized asset management company must be accountable for its performance, be required to report regularly to the parliament and the public, and be subject to strict audits by external professional auditors on behalf of its stakeholders. The specific nature of such companies—making themselves redundant—requires specific governance incentives, such as providing employee outplacement assistance and compensation incentive programs for rewarding timely and final resolution of assets.

[1]Woo (2002).

[2]Das and Quintyn (2002).

ket. It may wait for prices to bottom out and the economy to recover. Sale alternatives abound, including competitive bidding, securitization of asset portfolios, sales with put-back clauses, or seizure and sale of collateral.

If it is decided that a centralized asset management company will be set up, a number of design features need to be put in place to enhance the effectiveness of its operations.[35] These include operational and budgetary independence, legal protection of staff, governance and internal controls, and clear legal and operational rules (Box 10).

In the absence of strong institutions or an adequate legal framework, there may be scope for providing centralized asset management companies with legal and administrative powers to overcome limitations in the rules that otherwise might hamper the company's ability to manage the assets. When the legal framework limits the ability to resolve banks or distorts the balance between creditors and borrowers, special legislation could give the company the necessary powers to overcome such limitations. Any special powers would have to be clearly outlined in law and should be in place only for a limited period while the legal and institutional base of the country is being strengthened.

The most important disadvantages of a centralized asset management company are the potential for

[35]Woo (2002).

poor quality management and staff, and for political interference. Managing and liquidating nonperforming loans is a complex process involving extensive bilateral negotiations that open a wide scope for corruption. The objective of applying uniform rules and criteria could be jeopardized by political pressures on behalf of borrowers. These pressures can be countered by establishing an independent agency, perhaps under a special law, and giving management and staff legal protection. At the same time, the company must be accountable for its performance, be required to report regularly, and be subject to strict audits by external professional auditors on behalf of the government.

Empirical assessments of the effectiveness of centralized asset management companies have suggested that the most successful ones have had narrow mandates.[36] These companies have had only limited success in corporate restructuring. Political pressures, limitations of market discipline, and conflicting objectives have hampered their expanded role. Moreover, those with expanded mandates have often been used to recapitalize financial institutions by buying nonperforming assets at above market value. This recapitalization option is less transparent than more direct methods, it converts the asset management company into a loss-making operation to be covered by additional fiscal expenses, and it provides the government with less leverage in the recapitalized institutions.[37]

The key issue in the operation of all asset management companies—but most notably those that are centralized—is asset pricing. As long as the ownership of the bank and the company is the same, nonperforming loans can be transferred relatively rapidly because the transfer of assets is only an internal transaction. When ownership of banks and companies is different, pricing often becomes difficult because investors may be unwilling to share risk and potential losses. If an independent centralized asset management company is set up to purchase assets from ongoing concerns, nonperforming loans should be purchased at a price as close to fair market value as possible. While it is difficult to price nonperforming assets, especially in the midst of financial crises, an approximation of their value based on estimated recovery, cash flow projection, and appraisal of collateral should be used for the purpose of the transfer. When timing is an issue and there is a great number of assets involved, the transfer can take place at an initial price, with the explicit agreement that the final price of the transaction be established after the value of the assets has been estimated or the assets have been sold.

[36]Klingebiel (2000), Woo (2002), and Ingves (2000).
[37]Lindgren and others (1999).

Corporate Debt Restructuring

Banks and corporations must seek the timely and orderly transformation and reduction of corporate debt so that they can return to profitability and viability. In systemic crises, however, banks often are at a disadvantage in negotiating with borrowers. Legal actions that may be effective in normal times may not be effective in systemic crisis because the judicial system typically becomes overwhelmed.

Corporate debt restructuring should proceed in the context of operational restructuring of companies. Operational restructuring is a prerequisite for renewed corporate profitability, new investment, access to bank credit, and economic growth. Operational restructuring of nonperforming corporations must affect their businesses in the form of closures and reorganization of productive capacity, with a view to removing obsolete or excessive capacity and restoring profitability. This topic, which is not addressed in this paper, must be carefully planned and coordinated with efforts for corporate debt restructuring.

When a corporate crisis is systemic, the government may have to play a role in mediating between corporations and banks. Excess negotiating power by either debtor or creditor can obstruct the process, prolonging or impeding the resolution process. The government may opt to mediate either informally by providing common guidelines or formally by establishing an institutional framework for negotiations. Government intervention is generally not needed when the number of troubled corporations is small and their macroeconomic importance is limited. When corporate debt problems are widespread, market failures inhibit the debt restructuring process; or when banks are unable to work out debt on a large scale, a comprehensive debt restructuring framework involving the government may be needed.

A key function of the government in corporate debt restructuring is to provide an orderly and effective insolvency framework. A framework for debtors and creditors that is predictable, equitable, and transparent can contribute to financial stability. Moreover, such a system ensures the protection and maximization of value for the benefit of debtors, creditors, and other interested parties. An orderly and effective insolvency system imposes discipline on debtors and allows banks to limit deterioration in the value of their assets. Such a framework should include laws and regulations for bankruptcy, reorganization, and liquidation. It should also provide for protection of secured and unsecured creditors. In this way, the insolvency law provides a means of ensur-

Box 11. Good Practices for Corporate Debt Restructuring

Bankruptcy Regime

- A court-supervised reorganization framework that protects debtors from asset seizures; provides priority for new lending; gives a debtor and its creditors an opportunity to work out a mutually satisfactory restructuring plan; allows a majority of creditors to "cram down" a reorganization plan on a holdout minority of creditors; and converts the case into a court-supervised liquidation if interim milestones and reasonable deadlines are not met.
- A legal presumption, which may be altered in negotiation, that the equity interests of all shareholders—including minority shareholders—are wiped out in the case of corporate insolvency.
- Substantial institutional capacity, in terms of experienced judges, receivers, and insolvency professionals.

Out-Of-Court Processes

- Agreed standards among financial institutions for out-of-court workouts, including appointment of a lead creditor and steering committee; development and sharing of information; priority for new lending; apportionment of losses among creditor classes; thresholds for creditor approval of proposed workouts; and means for the resolution of differences among creditors.
- Reliance on market participants to structure and negotiate out-of-court workouts based on available information and the participants' commercial interests.
- A strong financial regulator able and willing to force banks to take immediate losses on corporate restructuring and to take over insolvent or nonviable banks.

Source: Kawai, Lieberman, and Mako (2000).

ing that private creditors contribute to the resolution of the crisis (Box 11 summarizes a set of best practices for corporate restructuring).[38]

Institutional reforms may have to accompany legal reforms during a crisis. The government may need to establish fast-track procedures, dedicated courts, and specialized judges. A special budgetary allocation may be required to facilitate the hiring and training of judges. Establishment of special procedures outside of the formal bankruptcy framework may expedite debt restructuring. In a systemic crisis involving the restructuring of hundreds or thousands of corporations, exclusive reliance on court-supervised processes will overwhelm the capacity of courts and insolvency professionals and bring the process to a halt. An out-of-court process can include guidelines and official mediators.

An example of the out-of-court system is the London Approach. That approach—which has been duplicated in a number of cases including the Bangkok Approach, the Istanbul Approach, and the Jakarta Approach—seeks to establish a framework for negotiations between creditors and debtors (Box 12). While the authorities play only a facilitator role in the London Approach, they have a more active role in some recent variants. This government-led approach was applied aggressively in Korea, where several medium-size corporate groups were restructured through debt rescheduling under the Corporate Restructuring Accord. This accord consisted of a steering committee with representatives from participating financial institutions and was responsible for assessing the viability of corporate candidates for restructuring, arbitrating differences among creditors, enforcing decisions, and modifying when necessary workout plans proposed by creditors. In Thailand, the Corporate Debt Restructuring Advisory Committee, formed by the Bank of Thailand and representatives of debtor and creditor groups, was established in 1998 as an independent intermediary in the restructuring process to facilitate negotiation among all parties concerned.

Such out-of-court procedures for corporate restructuring need to be backed up by credible court-supervised processes for seizure of assets, foreclosure, liquidation, and reorganization. Without the threat of court-imposed loss, there is not enough incentive for corporate debtors to agree to asset sales, equity dilution, and diminution of management control that may be part of a fair restructuring deal. While some debtors might cooperate voluntarily, more often the success of out-of-court efforts ultimately depends on the ability of creditors to impose losses on debtors.

Governments may encourage banks to apply summary terms and conditions for the restructuring of certain asset pools and thus permit greater focus on large borrowers. Such rules can best be used for large pools of homogenous small loans, such as mortgages or credit card portfolios. Applying summary solutions reduces an enormous logistical problem for banks and provides a sense of fairness to borrowers. Such schemes remove a potential political problem from the debt restructuring process and allow banks to concentrate on their largest problem loans, which should be dealt with on a case-by-case basis. Given the burden-sharing issues involved, such schemes must be

[38]For a more detailed discussion, see Lindgren and others (1999) and World Bank (2001).

Box 12. Best Practices in Corporate Workouts

The London Approach to multicreditor workouts is based on nonjudicial proceedings where creditors, recognizing that their self-interest is best served by collective negotiations rather than unilateral action, agree to a comprehensive restructuring of the debtor. The Jakarta Initiative Task Force, established in Indonesia in 1998 to encourage voluntary restructurings, is an example of government attempting to encourage the use of the London Approach to facilitate widespread corporate restructuring in response to a crisis.

The International Federation of Insolvency Practitioners (INSOL International), after five years of development by workout practitioners, published in 2000 the *Statement of Principles for a Global Approach to Multicreditor Workouts*, codifying the London Approach. INSOL International regards the eight principles as best practices for all multicreditor workouts, which are applicable in all jurisdictions having insolvency laws.

First principle: Where a debtor is found to be in financial difficulties, all relevant creditors should be prepared to cooperate with each other to give sufficient—though limited—time (standstill period) to the debtor to allow for information about the debtor to be obtained and evaluated and for proposals to resolve the debtor's financial difficulties to be formulated and assessed, unless such a course is inappropriate in a particular case.

Second principle: During the standstill period, all relevant creditors should agree to refrain from taking any steps to enforce their claims against or (otherwise than by disposal of their debt to a third party) to reduce their exposure to the debtor but are entitled to expect that during the standstill period their position relative to other creditors will not be prejudiced.

Third principle: During the standstill period, the debtor should not take any action that might adversely affect the prospective return to relevant creditors (either collectively or individually), as compared with the position at the standstill commencement date.

Fourth principle: The interests of relevant creditors are best served by coordinating their response to a debtor in financial difficulty. Such coordination will be facilitated by the selection of one or more representative coordination committees and by the appointment of professional advisers to advise and assist such committees and, where appropriate, the relevant creditors participating in the process as a whole.

Fifth principle: During the standstill period, the debtor should provide, and allow relevant creditors and/or their professional advisers' reasonable and timely access to, all relevant information relating to its assets, liabilities, business, and prospects, in order to enable proper evaluation of its financial position and any proposals to be made to relevant creditors.

Sixth principle: Proposals for resolving the financial difficulties of the debtor and, so far as practicable, arrangements between relevant creditors relating to any standstill should reflect applicable law and the relative positions of relevant creditors at the standstill commencement date.

Seventh principle: Information obtained for the purposes of the process concerning the assets, liabilities, and business of the debtor and any proposals for resolving its difficulties should be made available to all relevant creditors and should, unless already publicly available, be treated as confidential.

Eighth principle: If additional funding is provided during the standstill period or under any rescue or restructuring proposals, the repayment of such additional funding should, so far as practicable, be accorded priority status as compared to other indebtedness or claims of relevant creditors.

Source: International Federation of Insolvency Practitioners.

balanced. Private banks may agree to assume the cost of any concessions, but these costs could be absorbed by the government in part or in full.

Prudential rules must guide the restructuring of loans. Grace and maturity periods may be lengthened, but a renegotiated loan contract must require that interest be paid on a monthly or quarterly basis and not just accrued. The interest rate used should be a realistic, forward-looking market rate related to banks' funding costs. Prudential rules also must define the conditions under which a restructured loan can be returned to performing status. This should require that the restructured loan contract has been regularly serviced for some time. Such a rule is an important safeguard to prevent banks from using fictitious loan restructuring to reverse loan loss provisions and artificially inflate their CARs.

The restructuring of loans or recovery of collateral should be achieved as speedily as possible but cannot be subject to a formal timetable. Banks should seek to restructure or sell loans or collateral assets as soon as possible. But at the same time, this must be done in a process of negotiations that conforms with the law and properly defends the legitimate interests of bank owners and borrowers, all of which reflect loss-sharing issues between private sector agents.

VI Bank Restructuring and Macroeconomic Policies

The key to successful banking crisis management is coordination with the overall macroeconomic framework. Perhaps the most critical episode is the containment stage when, in addition to implementing the steps to address the immediate aspects of the crisis, macroeconomic policies may need to be tightened for confidence in the banking system and the currency to be restored. The appropriate mix of macroeconomic policies will depend on the nature of macroeconomic imbalances and the state of the banking system.

While this paper mainly concentrates on banking system restructuring, this section touches upon selected issues pertaining to the broader policy context within which bank restructuring must take place. Bank restructuring needs to be implemented in conjunction with supporting macroeconomic policies, taking into account existing macroeconomic constraints. Moreover, measures to contain the crisis and restructure banks may have macroeconomic consequences that need to be taken into account in policy design. Given this breadth of concerns in implementing a financial sector restructuring strategy, banking crisis management requires coordination of the macroeconomic policy framework, the reform of policy instruments, and the design of microeconomic initiatives.

This section discusses four specific issues. First, the interaction of monetary and exchange rate policies and bank restructuring, with a focus on the initial stages of banking crises. Second, existing evidence on the path of economic growth during and after a systemic crisis. Third, lessons from country experiences on reintermediation after a banking crisis has occurred. Fourth, the interaction between sovereign debt restructuring and bank restructuring—an issue that has emerged forcefully in the recent Latin American crises.

Issues in Monetary and Exchange Rate Policies

In the initial stages of a crisis, monetary policy will need to walk a fine line between conflicting goals. Monetary management should accommodate liquidity demands by banks because failure to provide liquidity could result in a collapse in the payment system and an acceleration in the deterioration of economic conditions. If liquidity support causes serious pressures on prices and the exchange rate, however, monetary policy will have to be tightened to attempt to reabsorb the excess liquidity promptly. In walking this fine line between preserving the payment system and losing monetary control, monetary policy targets—inflation, net domestic assets, or money base—will have to be flexible.

From the policy point of view, the central bank is faced with the task of mopping up the excess liquidity created by its emergency support operations. Accordingly, the interest rates on central bank securities will have to rise. Illiquid banks will be able to pass on the high rates to depositors, thereby raising the funds that will be used to purchase the policy instruments. As normal monetary operations resume, rates should be brought down as quickly as feasible, because high rates for protracted periods will severely damage borrowers' repayment capacity, lead to deterioration in banks' loan portfolios, and draw political criticism.[39]

In order to handle the crisis without losing monetary control, monetary instruments may need to be reformed or new ones introduced. As the initial stages of a crisis are likely to require substantial injections of emergency liquidity assistance, the policy instruments used by the central bank must be sufficiently flexible and available in sufficient abundance to absorb excess liquidity in the system. Policy instruments may be lacking or weak or a secondary market may be underdeveloped, resulting in the need to upgrade instruments and infrastructure. For instance, the relative merits of government and central bank securities for the conduct of monetary policy may need to be assessed, which in some cases might

[39]In the Asian crises, large amounts of liquidity support were effectively sterilized in Korea and Thailand, which allowed the exchange rates to stabilize and interest rates to be brought down. Sterilization was not successful in Indonesia due to administered central bank interest rates but also, perhaps more importantly, to broader factors that lead to a loss of monetary control.

be a function of the sustainability (and related value) of sovereign debt.[40] Interest rate liberalization could also be an essential aspect of making monetary policy more effective.[41]

Experience shows that rigid exchange rate regimes or policies are often abandoned in systemic banking crisis. If creditors and depositors have doubts about the sustainability of the exchange rate and macroeconomic policies, the run on the banks combines with a run on the currency. At the same time, capital outflows may put pressure on the exchange rate, even if it was flexible before the crisis, which will only stabilize when domestic policies take hold and confidence begins to return. In these cases, the run on banks will only subside once the exchange rate is credibly stabilized, as the recent experience of Argentina indicates.

A number of countries in recent years have imposed a broad range of controls on capital outflows to reduce pressure on the exchange rate in the context of banking crises.[42] Malaysia and Thailand, for instance, reimposed capital controls during the Asian crisis of 1997–99; more recently in 2002, Argentina introduced a broad range of exchange restrictions in response to runs on the banks and the currency. The effectiveness of these controls in realizing their intended objectives has been mixed, with the highest success in stabilizing the exchange rate achieved in countries that introduced the controls in conjunction with other macroeconomic and financial policies.

Systemic Crises and Economic Growth

Systemic banking crises are almost always associated with severe recessions. Crises may be caused by the very same problems that led to recession. In addition, a crisis may induce a recession due to several factors, including inter alia curtailment of financial intermediation, increased economic uncertainty, negative wealth effects from depressed asset values, and delays in restoring creditworthiness of insolvent firms and financial intermediaries.

A decline in bank credit is expected in the wake of a systemic crisis and is typically a result of both demand and supply factors. Credit demand falls as economic growth declines or stock adjustments from major asset and credit bubbles occur. Some of the best borrowers may start borrowing directly in bond markets domestically or from various sources abroad. Meanwhile, the supply of credit may be reduced as banks begin to apply stricter lending criteria and stop new lending to a growing number of nonperforming borrowers, and as some banks exit the market. If loan recovery is in doubt, banks will seek risk-free investments and will prefer to stay liquid as a precautionary stance. Data also need to be interpreted carefully because the decline in bank credit may reflect increased loan loss provisions (if credit aggregates are reported on a "net" basis); the impact of bank closures; or the sales of loans to an asset management company.

A decline in credit may reflect a desirable market adjustment. The combination of tight credit and banks awash in liquidity is likely to lead to political pressures for quantitative credit targets, special lending schemes for the most affected sectors, artificially low interest rates, and even across-the-board reductions or "haircuts" of loan balances. Such pressures should be resisted because they undermine bank profitability and efficiency, delaying recovery and the restoration of solvency. Banks should be cautious and lend only to viable companies.

Interest rates are likely to rise in the wake of a crisis outbreak. Economic agents are likely to remain risk averse for some time with a strong liquidity preference, and there may be a considerable delay before depositors and other creditors regain sufficient confidence to entrust their financial assets to the banking system. Under these conditions, interest rates will rise, with rates increasing further the greater the expectations of a sharp increase in inflation and exchange rate depreciation.

Experience also indicates that in several cases systemic banking crises have resulted in permanent losses in aggregate output (Figure 3). After the crisis is over, the growth rate may return to its potential level, but in several of the cases examined there was no catch-up to the previous trend level of output. In some cases (i.e., Ecuador, Indonesia, and Thailand), the losses have been significant, while in others the catch-up was quicker (i.e., Chile and Korea). The savings and loan association crisis in the United States apparently had no impact on aggregate output, or its negative impact at that time was more than offset by other positive developments in the U.S. economy. Nonetheless, care must be taken in interpreting these graphs, as several factors were at work in the economies.[43]

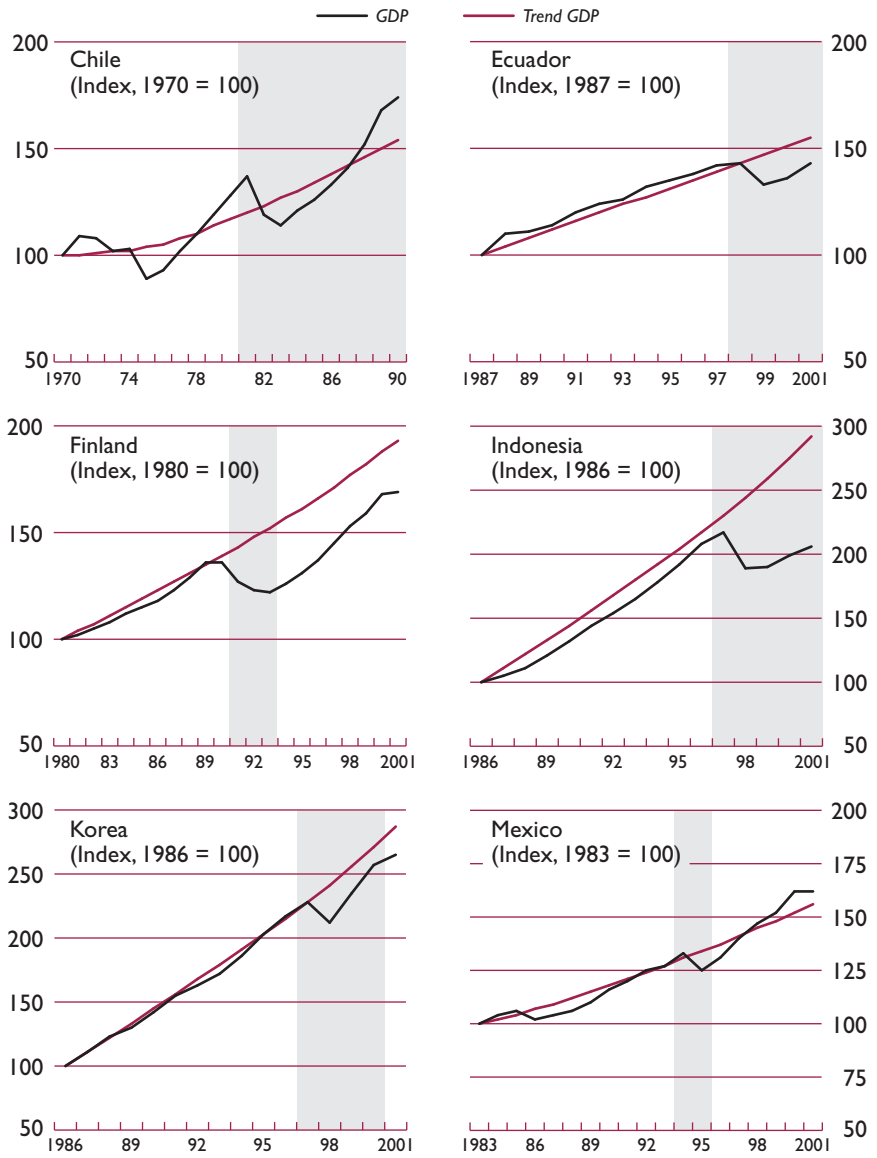
[40]See Quintyn (1994).

[41]For a description of the reform of monetary policy instruments, see Alexander, Baliño, and Enoch (1995).

[42]For an analysis of experience with capital controls, see Ariyoshi and others (2000).

[43]Some empirical support for the interpretation offered here is found for the Asian crisis countries by Cerra and Saxena (2003). The authors use a regime-switching model, decomposing recessions into permanent and temporary components. Their results suggest that the Asian countries suffered Hamilton-type recessions with permanent output loss rather than the Friedman-type recessions that include a rapid postcrisis growth phase resulting in catch-up to the initial trend.

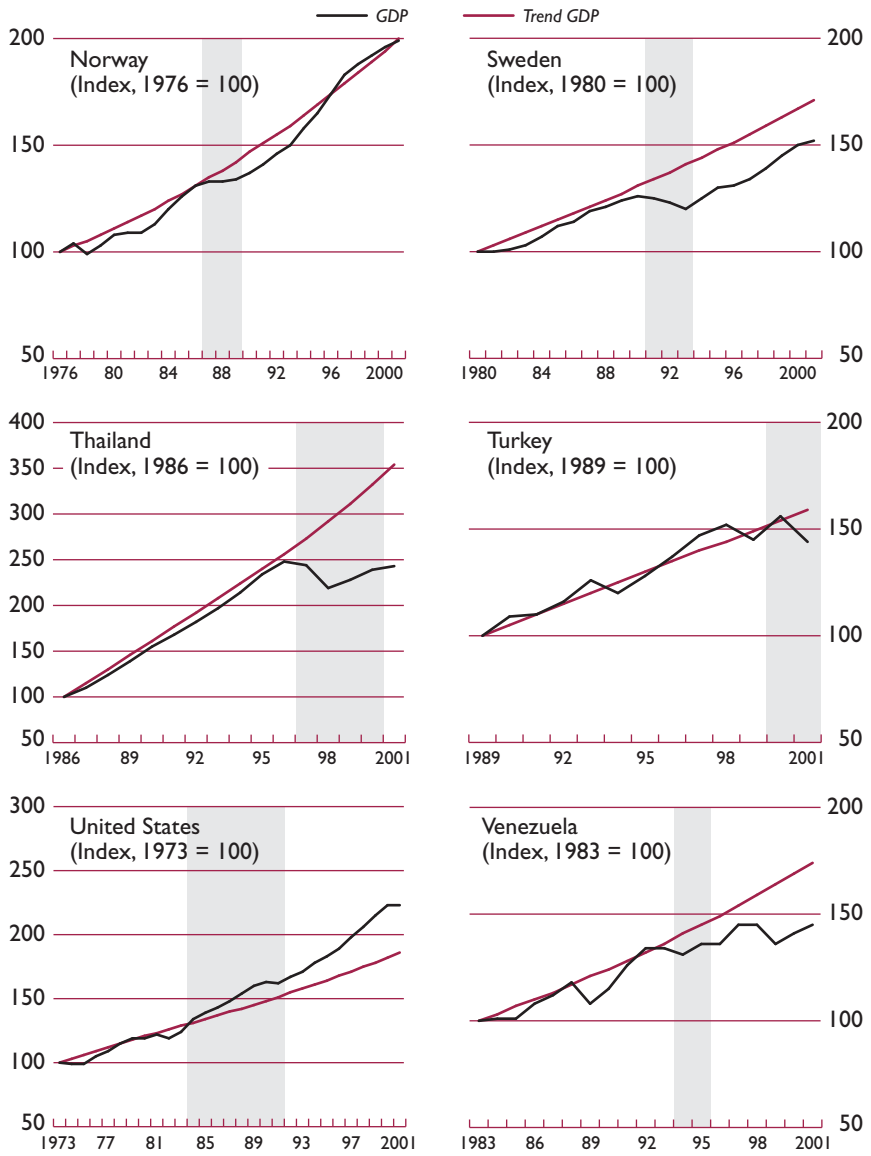
Figure 3. Estimated Output Losses in Selected Crisis Countries[1]



The return of economic growth to its long-term trend level requires appropriate macroeconomic policies in combination with swift restructuring policies.[44] In general, in countries where the policy response was strong—that is, well coordinated, well communicated, and credible—the notional economic costs were lower. For example, in Sweden and Korea the growth rate rapidly returned to trend, while the impact was greater in Ecuador, where credibility was constrained by a high public sector debt burden and political turmoil, and in Indonesia, where the central bank lacked instruments to absorb liquidity and therefore to control inflation and capital flight.

[44]In this context it is important to emphasize that conditions should be created so that banks can contribute to the growth resumption. Such policies include swiftly taking care of (a) the problem of nonperforming assets; (b) provisioning; and (c) recapitalization of banks.

Figure 3 *(concluded)*



Source: IMF, *International Financial Statistics*.

[1]The graphs show the actual level of GDP versus the level that would have resulted if a simple measure of the trend growth rate had been maintained throughout the period. Trend growth rates are calculated using a Hodrick-Prescott filter for the 10-year period before the crisis began.

A final consideration is whether banking crises themselves may change the potential growth rate of the economy. A more favorable long-term outcome could result if the crisis prompts reforms that promote a more stable macroeconomic environment, or if strengthened banking regulation increases the efficiency of financial intermediation. Alternatively, and particularly if the crisis is mishandled, value embodied in firms or banks that become insolvent and are closed may be destroyed, despite underlying efficiency. A permanent exodus of capital may result, and valuable knowledge, such as that contained

in relationships between lenders and borrowers, may be lost.

Postcrisis Reintermediation

Reactions to crisis episodes by stakeholders—depositors, other creditors, and bank shareholders—have varied across countries and appear related to the origins of the crisis; the credibility of institutional arrangements, in particular deposit insurance schemes; and modalities of crisis management. Figure 4 shows the evolution in deposits and loans of deposit money banks in real terms for selected crisis countries. There is a fairly consistent overall pattern: rises in both variables in the precrisis period, declines during the crisis, followed by stability with little or lower growth afterward. There is, however, considerable variation in the magnitude and duration of these effects, depending on the economic conditions and policy choices in the different countries.

Reintermediation requires correcting the factors that triggered (or worsened) the crisis. Successful reintermediation would include sustainable macroeconomic adjustment, sound fiscal and public debt management, a stable currency in which to denominate financial contracts, sound banks and supervisory frameworks, and credible liquidity arrangements. The speed of reintermediation is swift when credibility in macroeconomic and banking policies is recovered rapidly. When confidence in the local currency has been fundamentally undermined, reintermediation may be accelerated through indexation or a higher degree of dollarization (see Ecuador, for example, although the delay in the passthrough of depreciation to consumer prices exaggerates the stability of real loans and deposits during the crisis period). Indexation arrangements (particularly to the dollar) can be a source of longer-term risks, however, and financial instability and partial dollarization tend to complicate the conduct of monetary policy.

Repairing the fabric of bank intermediation will also take time when banks are weak and relations with their debtors affected by an unresolved debt overhang or a poor economic or political environment: the former effects were at work in Indonesia and Mexico, for example, the latter in Indonesia, República Bolivariana de Venezuela, and Ecuador). For banks whose capital and profits have been affected by the crisis, their ability to accept deposits at desired rates postcrisis will be affected by investment opportunities.

The introduction of foreign banks to the domestic system may also provide a positive contribution to the process of reintermediation on the liability side of banks' balance sheets. Perceptions of quality, parent backing, and the introduction of new products have the potential to attract depositors back to the banking system. The evidence on the contribution of foreign banks to reintermediation on the asset side of banks' balance sheets, however, is less clear and needs further analysis. Often, the gradual entry of foreign banks into the system has been accompanied by recovery and stability in real deposits but no consistent recovery in loans. While more savings may be available to the financial system for investment, foreign banks may be more risk averse than domestic banks because the latter may have a better knowledge of the local market.

The Impact of Sovereign Debt Restructuring

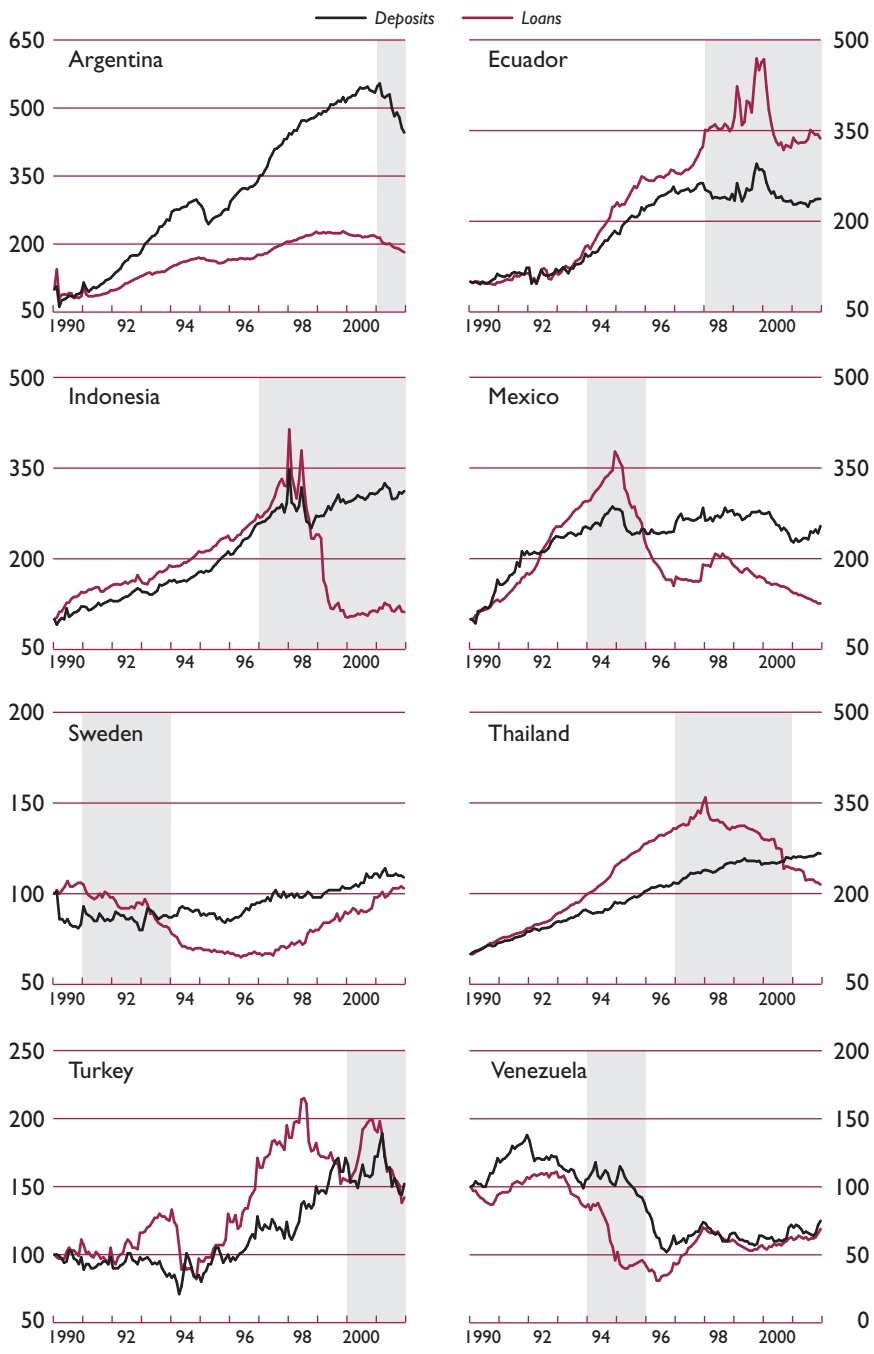
Unsustainable fiscal or debt policies create an additional set of complications and constraints for crisis management. An unsustainable fiscal position requires a strong fiscal adjustment and may require not only that shareholders take losses, but that depositors or other creditors also share in the losses. Limited fiscal resources may also constrain the authorities' efforts to contain the crisis and assist in recapitalizing banks. More private financial support will be needed and, if such support is not available, more banks will need to exit the system.[45]

Only limited experience is available about sovereign debt restructuring and its impact on bank restructuring. Countries that have engaged in sovereign debt restructuring include Ecuador, Pakistan, Russia, and Ukraine. These countries had very different macroeconomic and institutional conditions, and few firm conclusions can be drawn from these cases. The impact of debt restructuring will depend, however, on a large number of issues, including the initial conditions, the size of banks' holdings of sovereign debt, the currency of denomination, the law governing the debt, the size of the needed restructuring, the restructuring alternative used, and the associated macroeconomic policy mix.[46]

[45]The Asian countries entered the crisis (1997) with relatively solid fiscal positions and little public debt. This allowed them to issue a credible blanket guarantee and play a central role in bank recapitalization and resolution. The situation was more delicate in Turkey (2000), and outright unsustainable in cases like Ecuador (1998) and Argentina (2002).

[46]For instance, if all or most of the debt is denominated in local currency, inflation may be a viable alternative to debt restructuring.

Figure 4. Evolution of Bank Deposits and Loans in Selected Crisis Countries[1] 1990–2001
(Index, January 1990 = 100)



Source: IMF, *International Financial Statistics*.
[1]Deposits and loans in real terms deflated by CPI index, which is reset to 100 in the year before the crisis for each country.

The impact of sovereign debt restructuring on the banking system will depend on the broad framework under which the restructuring is taking place. If the solution to the government's financing problems takes place under a market-based framework through a debt swap operation, banks may achieve higher interest earnings and cash flow but at the cost of exposure to higher country risk. Banks may also participate as creditors in a collective negotiation, allowing them to influence the terms of the rescheduling and ensure that their medium-term viability is not jeopardized.

The unilateral restructuring of sovereign debt can cause deep insolvencies in the banking sector and disrupt the effectiveness of standard resolution tools. When banks hold a significant portion of government bonds, restructuring can both cause a banking crisis and make the resolution of a banking crisis more difficult. The size of losses will depend on the terms and modalities of the sovereign debt restructuring. Large restructuring may result in immediate undercapitalization or even banking system insolvency. At the same time, the range and effectiveness of resolution tools may be limited. The government may not be in a position to play the roles of creditor, guarantor, or owner of last resort as in a conventional banking crisis.

For these reasons, any strategy for sovereign debt restructuring must explicitly consider the impact on the banking system. If measures to achieve debt sustainability result in banking system insolvency, the final costs to the government and the economy may well overshadow any gains from debt reduction. Decisions on overall strategies, therefore, must be made in terms of the least cost, with costs being broadly defined in terms of immediate fiscal costs, costs to the banking system, and the impact on economic growth and employment. Policy measures should include sufficient fiscal adjustment so that a viable banking system remains at the end of the adjustment process.

Sovereign debt restructuring may be achieved by extending maturities, reducing interest rates, and/or imposing nominal reductions (haircuts) on the debt stock. In all cases, banks will suffer losses because both cash flow and the present value of their assets will be reduced. The impact of these losses on banks will depend on how the measures are implemented.

Maturity extensions and interest rate reductions will lower the cash flow of the banks, causing an economic loss. According to international accounting standards, the present value losses from restructuring must be disclosed, but there is no international best practice for the treatment of such losses during a crisis.[47] Bank supervisors may require full provisioning, immediately affecting bank equity. Alternatively, regulations might permit banks not to make full provisions for impaired sovereign bonds, provided that the banks show they are viable notwithstanding the cash flow impact of the restructuring.

The least disruptive outcome for the banking system is when the restructuring of government debt does not cause nominal reductions in bank assets (i.e., without provisioning for economic loss or a haircut). In this case, actions to preserve bank viability may require reductions in interest rates or extensions of deposit maturities through withdrawal restrictions or securitization. Depositors will react negatively to any change in their contracts by drastically withdrawing available funds from the banking system (Box 13). However, as discussed above, measures may be taken to mitigate the runs and protect the operation of the payment system (see Section III on administrative measures). Moreover, the impact of restructuring may be eased by the adoption of a credible and comprehensive macroeconomic program in parallel with the restructuring.

The most disruptive outcome for the banking system occurs when nominal losses are imposed. Bank capital will be written down and the imposition of remaining losses on depositors may become unavoidable. If banks' exposure to the government is relatively small in terms of total assets, shareholders or the government may still be able to recapitalize the bank to a minimum capital level and gradually return it to full prudential compliance.[48] A more difficult situation occurs when banks hold a large portion of their assets in government debt and/or a majority of the stock of government debt. In this case, the sovereign debt restructuring will require a write-down of bank capital and then imposition of the remaining losses on depositors.

Haircuts on deposits are likely to be far more disruptive than deposit restructuring because value is permanently lost. Because depositors appear to have a strong preference for retaining the nominal value of their deposits, a nominal deposit loss and the accompanying elimination of any explicit deposit insurance would likely cause a long-lasting collapse in investor confidence. The effects will permeate the economy and jeopardize the medium-term viability of the banking system.[49] The authorities will have few tools to address the crisis, and additional administrative measures may become necessary. In this option, depositors will face a

[47]According to International Accounting Standards 32 and 39, banks must disclose the fair value of assets in financial statements.

[48]In this case, the benefits derived from the reduction in the full stock of debt will not be offset by the issuance of new debt for bank recapitalization.

[49]Nonbank financial institutions would also be affected, with pension funds and mutual funds collapsing.

Box 13. Depositor Reactions to Contract Changes

The experience of several countries with changing the contracted terms of bank deposits suggests that the risks of deposit runs and large drops in bank intermediation are significant.

- Mexico (1982), Bolivia (1982), and Peru (1985) dedollarized bank liabilities. With little credibility in the domestic currencies, capital flight—despite capital controls—and bank disintermediation quickly followed. In Mexico, deposits-to-GDP ratios declined to 6 percent in 1988 from 26 percent in 1981. Similarly, in Peru they fell to 10 percent in 1989 from 21 percent in 1983. In Bolivia, the ratio of M2 to GDP declined to 11 percent in 1986 from 26 percent in 1982.
- In Argentina, the Bonex plan of 1989 halved the stock of liquid assets by converting time deposits to 10-year bonds, and intermediation rates fell to 7 percent in 1991 from 21 percent. During the 2002 crisis, forced pesification of deposits resulted, despite strict withdrawal restrictions, in a leakage of 25 percent of deposits in the first 8 months of the year.
- In Ecuador (1999), deposits were initially frozen, but when the freeze was lifted massive deposit flight led to currency pressures that were eventually resolved through full dollarization.
- Pakistan (1998) froze deposits of banks as a temporary response to the collapse of the private banking system following sovereign debt default. Pakistan's deposit freeze was confined to foreign currency deposits of residents and nonresidents to contain capital flight. The frozen deposits could subsequently be converted to free domestic currency deposits or special U.S. dollar-indexed bonds. The effect on intermediation was contained, in part due to the limited nature of the operation.
- Uruguay (2002) reprogrammed dollar time deposits in public banks over a maximum period of three years. Dollar sight and saving deposits and all peso deposits in the domestic banking system were left unfrozen, as were all deposits in foreign banks.

Typically, contract modifications were introduced in times of large macroeconomic imbalances. When macroeconomic imbalance was the major factor leading to the episodes, strong credible stabilization programs have been critical to reintermediation. In Mexico, depositors remained offshore until 1988, when a stabilization program led to a massive return of flight capital. The experience was similar in Peru following the reform program in 1991–93, with intermediation ratios rising by 8 percentage points in the 1991–96 period. In Argentina, following the introduction of the Convertibility Plan in 1991, deposits-to-GDP ratios rose by 14 percentage points between 1990 and 1994. Ruble intermediation has not recovered in Russia and, conversely, foreign currency–deposits-to-GDP ratios are now 40 percent above precrisis levels. Pakistan too has suffered, but here the declines in intermediation are more associated with the decline in official financing following sanctions.

nominal reduction of their deposits and may not be able to avoid the additional costs resulting from the administrative measures. Under such drastic conditions, the possibility of revitalizing financial intermediation will be small, with corresponding effects on future economic growth and the economic welfare of the population.

Reflecting the destabilizing impact of depositor and creditor haircuts, countries have rarely written down the contractual value of deposits.[50] Given concerns about financial sector stability, losses on depositors and other creditors are typically imposed through a compulsory change in the contractual terms, such as a suspension or reduction in interest rates, or a conversion of depositor claims into long-term bonds or equity. Experience has shown that, to be successful, such measures must be accompanied by a coherent and comprehensive macroeconomic adjustment program. In addition, there will often be a need to strengthen debt management practices in order to rebuild the market for government debt.

[50]The one exception is in the case of currency reforms (a new currency is introduced to replace the old currency). Currency reform often entails only redenomination of the currency. In some cases, however, the reforms have had a confiscating element. Few countries have applied nominal haircuts and, where tried, they have been challenged frequently on constitutional grounds.

Appendix I Costs of Banking Crises

Estimating the overall costs of banking crises is difficult. While the fiscal costs may be clearly specified, the overall costs to the economy are more difficult to quantify. The methodology for assessing such fiscal costs must take into account both the direct outlays of the government and the recovery from asset sales. In recent crises, the fiscal costs of a banking crisis ranged from zero to over 50 percent of GDP (Table AI.1). The steps for estimating the broader costs to the economy are described but have not been quantified.

Types of Costs

The costs of a banking crisis arise from different causes and develop over time. Clarification of the definitions used is essential if meaningful comparisons are to be made.

The costs can be defined in the following ways:

- **Gross costs to the public sector:** Examples of such costs are outlays of the government—restructuring agencies or, in some cases, directly from the treasury—and central bank for liquidity support; deposit payments; purchase of impaired assets; and recapitalization through purchase of equity or subordinated debts.
- **Net costs to the public sector:** Gross outlays are netted against resources generated from the sale of acquired assets and equity stakes, and repayment of debt by recapitalized entities. This measure ideally reflects the permanent increase in national debt, or the cumulative increase of fiscal deficits where budget transfers are used, resulting from the crisis.
- **Costs in net present value:** Support to financial institutions—and especially the recovery of value from the sale of impaired assets and equity stakes—may occur over relatively protracted periods. Ideally, in estimating costs cash flows should be appropriately discounted so as to reflect the carrying cost of debt issued, the delay in recovering resources from acquired assets, and the opportunity cost of the use of public funds.[51]
- **Economic costs of crises:** Systemic crises result in forgone economic growth because the intermediation function is temporarily curtailed. In some cases, the crisis of confidence may have longer-term consequences for financial sector and, therefore, overall development.[52]

Many of the costs borne by the public sector represent transfers to the private sector. These are not losses to the economy as a whole.[53] Where liquidity support to failed institutions or financing for resolution agencies provided by the central bank has not been fiscalized (i.e., a government body has not issued debt or made cash payments to repay the central bank), the money supply increases. If this is not, or cannot, be absorbed through open market operations or other instruments, where it would show up as quasi-fiscal losses, this will be inflationary or contribute to exchange rate pressures and capital flight.

The present analysis considers only direct costs to the public sector and does not take into account the costs of inflation or forgone economic growth. Furthermore, no attempt has been made to discount appropriately the cash flows to and from the state, or otherwise calculate the net present value of the interventions.[54] As asset disposals usually occur over extended periods, the present value of recoveries is

[51]However, it can be objected that in considering other public expenditures that generate debt, the net present value of interest payments thus incurred is rarely included in the costing of the activity.

[52]See Frydl and Quintyn (2002) for a full discussion of the economic benefits and costs of intervening in crises.

[53]See Frécaut (2002) for a detailed discussion with reference to Indonesia.

[54]In some cases, part of the cost of debt service is reflected in the discount-to-face value of the funds raised through the debt issued. In Malaysia, for example, zero-coupon bonds were issued, with the discount therefore fully reflecting the servicing costs. This observation serves to highlight one difference in coverage between countries considered here.

Table AI.1. Fiscal Costs of Selected Banking Crises[1]
(In percent of GDP)

	Crisis Period	Gross Outlay	Recovery	Net Cost	Assets[2]
Chile	1981–83	52.7	19.2	33 .5	47.0
Ecuador	1998–2001	21.7	0.0	21.7	41.3
Finland	1991–93	12.8	1.5	11.2	109.4
Indonesia	1997–present	56.8	4.6	52.3	68.1
Korea	1997–2000	31.2	8.0	23.1	72.4
Malaysia	1997–2000	7.2	3.2	4.0	130.6
Mexico	1994–95	...	...	19.3	40.0
Norway	1987–89	2.5	...	...	91.9
Russia	1998–99	...	...	0.0	24.9
Sweden	1991–93	4.4	4.4	0.0	102.4
Thailand	1997–2000	43.8	9.0	34.8	117.1
Turkey	2000–present	29.7	1.3	30.5	71.0
United States	1984–91	3.7	1.6	2.1	51.4
Venezuela	1994–95	15.0	2.5	12.4	28.3

[1]See Table AI.2 for methodology, sources, and country-specific information.
[2]Assets of deposit money banks in the year before the first crisis year.

lower than shown here.[55] On the other hand, asset disposal processes are incomplete for most of the cases included, and no attempt has been made to forecast what future revenues from asset disposals might be. This would underestimate total recoveries in nominal terms.

A central objective was for the estimates to be comparable across countries. This objective could be met only in part, as evidenced by the country notes below. The data are presented as ratios over GDP; where it has been possible to identify the year in which a specific cash flow or debt issuance occurred, this magnitude is divided by nominal GDP for that year. In many cases, however (especially for recoveries), only aggregate data reflecting several years of activity were available. In these cases, an average of GDP for the relevant years was used.

Gross costs were measured as outlays of the government and central bank in terms of bond issuance and disbursements from the treasury for liquidity support, deposit payments, and recapitalization and purchase of nonperforming loans. Recoveries were then subtracted to arrive at net costs. Data limitations meant that even these measures are incomplete. For example, liquidity support may be provided to institutions that later fail, and such outlays are captured here only if they were fiscalized (Table AI.2).

[55]Nonetheless, where possible cash flows have been divided by the GDP of the year in which they occurred. This provides some measure of discount because GDP typically rises in the postcrisis period, while the resale values of assets taken over rarely rise above the price at which they were acquired.

Table AI.2. Fiscal Costs of Selected Banking Crises: Sources and Country-Specific Information

Country	Data Sources	Notes
Chile	Sanhueza (1999), Sanhueza (2001)	Sanhueza estimates that, of the gross costs of 53 percent of GDP, 9.4 percent of GDP was paid out to depositors in the early stages of the crisis, and 43.3 percent of GDP was spent on portfolio purchase and other recapitalization measures. Sanhueza (2001) estimates the cost of liquidating banks and the portfolio purchase program discounted for the cost of social capital (accounting for some of the hidden economic costs of intervention). These estimates raise the net cost by a total of 2.5 percent of GDP.
Ecuador	Authorities' data and IMF staff estimates	Data to March 2002. The asset disposal program is only now getting under way.
Finland	Drees and Pazarbaşioğlu (1998), IMF (2001)	IMF (2001) reports estimates of gross and net costs of 10 percent and 7 percent of GDP respectively, but does not detail the underlying numbers.
Indonesia	Authorities' data and IMF staff estimates	Data to end-2001. Excludes Rp 40 trillion allocation to the deposit guarantee fund from September 2001. The "certificate of indebtedness" generated in this transaction will pay no interest unless the funds are used (no funds have been used thus far). Inclusion would add a further 2.7 percent of GDP to gross costs.
Korea	Karasulu (2002)	Data to September 2001.
Malaysia	IMF staff estimates	Due to lack of data, losses implied by the merger of two state-owned concerns (Bank Bumiputra and Bank Sime) with private banks are excluded. Nonperforming loans worth 9.9 percent of 1998 GDP from these entities were entrusted to AMC Danaharta, and recoveries from sale of these assets (assuming the same overall recovery rate) have also been excluded. Costs would be considerably higher if these losses were included.
Mexico	De Luna-Martinez (2000)	Data to June 1999. Data on gross outlays is unavailable, but the negative net worth of the Bank Savings Institute (IPAB) was equivalent to a further 12.4 percent of GDP at that time.
Norway	Drees and Pazarbaşioğlu (1998)	Data on recoveries through asset disposals is unavailable, but the state retains equity stakes in banks that, if sold at current market prices, would more than cover the gross costs cited.
Russia	Banerji, Majaha-Jartby, and Sensenbrenner (2002)	Through liquidity support, regulatory forbearance, deposit transfers, and special credits to banks undergoing restructuring, a bank run was avoided. A blanket guarantee or state-funded recapitalization measures were never undertaken. The net costs were positive, but small.
Sweden	Drees and Pazarbaşioğlu (1998), IMF (2002)	Drees and Pazarbaşioğlu (1998) gives gross costs, and the Financial System Stability Assessment comments that the state was able to fully recover initial outlays plus operating costs of the resolution agencies.
Thailand	Giorgianni (2002)	. . .
Turkey	Banking Regulation and Supervision Agency (2002)	. . .
United States	Federal Deposit Insurance Corporation (FDIC) staff estimates, and Curry and Shibut (2000)	The figures shown refer only to the savings and loan crisis. Including resolution costs for insolvent banks would raise net costs by 0.5 percent of GDP (FDIC, "Failed Bank Costs Analysis 1986–95").
Venezuela	de Krivoy (2000)	As of end-1998. The figures represent cash flows through the Venezuelan Deposit Guarantee Agency (FOGADE); thus gross cost excludes direct central bank support to banks that subsequently failed. As of end-1998, FOGADE retained assets of value equivalent to 1.5 percent of GDP. If these are included, net costs fall to 10.9 percent of GDP (the net cost given by the source used for the data).

Note: GDP data are from the *World Economic Outlook* and *International Financial Statistics* databases, and assets of deposit money banks from *International Financial Statistics*.

Appendix II Case Studies of Banking Crises

Table AII.1. Description of the System Before and After the Crisis

Country	Crisis Dates		Composition of the Sector[1]		Estimated Net Cost to the State as Percent of GDP[2]
	Onset	Exit	Before	After	
Argentina	July 2001: Deposit run begins, spurred by uncertainty over fiscal sustainability and exchange rate policy. Deposit freeze imposed December 3, 2001; devaluation in January 2002.	Deposit freeze gradually lifted, ending in 2003.	89 commercial banks *Of which* 36 private domestic (20) 39 foreign (49) 14 public (31)	As of December 2002: 88 commercial banks *Of which* 41 private domestic 30 foreign 17 public	. . .
Ecuador	August 1998: Intervention in Banco de Préstamos. Bank credit lines were cut in response to Russian crisis and supply shocks (oil prices and weather related).	2001: Blanket guarantee lifted.	35 commercial banks	End-2001: 22 commercial banks	21.7
Finland	August 1991: Skopbank (apex bank for savings banks) intervened. Markka depreciation affected borrower repayment capacity; real estate bubble collapsed.	1993: Bank profitability restored in 1996.	10 commercial banks (61) 150 savings banks (25) 359 cooperative banks (14)	End-1995: 7 commercial banks 40 savings banks 300 cooperative banks	11.2
Indonesia	August 1997: Devaluation of rupiah. Followed Thai baht devaluation in July. October 1997: Hong Kong stock market crash worsened the crisis.	Ongoing June 2000: System capital became positive again.	238 commercial banks *Of which* 160 private domestic (49) 34 foreign joint-venture 10 foreign bank subsidiaries sum (8) 7 state-owned (40) 27 regional government (3) 9,200 rural banks 252 finance companies	As of December 2002: 145 commercial banks *Of which* 69 private domestic (10) 25 foreign joint-venture 10 foreign bank subsidiaries (sum, 16) 5 state-owned (48) 26 regional government (4) 3 intervened banks (14) 7 jointly recapitalized (8) 8,700 rural banks 245 finance companies	End-2001: 52.3
Korea	November 1997: Devaluation of won. Followed devaluation of Thai baht in July, and falls in bank credit lines despite official guarantee of external liabilities in August. October 1997: Hong Kong stock market crash worsened the crisis.	2000: Repayment of central bank liquidity support by April 1999.	79 commercial banks (40) *Of which* 27 domestic private 52 foreign bank branches 6 state-owned specialized and development (15) 30 merchant banks (5) 30 investment trusts (7) 6,000 credit unions, credit cooperatives, mutual credit, and savings companies (16)	June 2000: 61 commercial banks (44) *Of which* 14 domestic private 44 foreign bank branches 3 state-owned commercial (24) 6 state-owned specialized and development (18) 9 merchant banks (1) 25 investment trusts (10) 4,800 others (10)	23.1

Table AII.1 *(concluded)*

Country	Crisis Dates		Composition of the Sector[1]		Estimated Net Cost to the State as Percent of GDP[2]
	Onset	Exit	Before	After	
Malaysia	July 1997: Devaluation of ringgit two weeks after Thai baht devaluation. October 1997: Hong Kong stock market crash worsened the crisis.	2000: Non-performing loan–purchase program closed.	35 commercial banks 12 merchant banks 7 development institutions 1 savings bank 39 finance companies	End-2000: 34 commercial banks 12 merchant banks 20 finance companies	4.0
Mexico	December 1994: Devaluation of peso.	September 1995: Repayment of central bank liquidity support although capital support and resolution of intervened institutions continued for several years.	32 commercial banks 7 development banks	End-1999:27 commercial banks *Of which* 7 in liquidation 5 intervened and awaiting resolution	19.3
Russia	August 1998: Devaluation of of the ruble. Partial government debt default.	1999: Lending growth resumed. Real deposit growth resumed in 2000.	July 1998: 1,547 banks *Of which* 1,462 licensed to accept household deposits 26 nonbank credit institutions	End-2001: Approximately 1,300 banks (about 100 are considered large) approximately 50 are under foreign control, and 2 of the largest are state owned.	Small
Sweden	Fall 1991: Capital injections required for Nordbanken and Första Sparbanken. Economic policy stance became restrictive, puncturing a real estate boom.	1993: Precrisis profitability was restored in 1994, and lending recovered in late 1997–early 1998.	End 1990: 21 commercial banks 104 savings banks	End-1992: 13 commercial banks (32) 90 savings banks (2)	0.0
Thailand	July 1997: Flotation of the Thai baht. Capital outflows and liquidity support for many finance companies began between March and June.	End-2000: Commercial banks registered positive operating profits.	15 commercial banks *Of which* 14 domestic private 1 state-owned 19 foreign bank branches 7 specialized state-owned banks 91 finance companies	End-2000: 13 commercial banks *Of which* 5 domestic private 4 state-owned 4 majority foreign-owned 21 foreign bank branches 7 specialized state-owned banks 21 finance companies	34.8
Turkey	December 2000: Capital market turbulence and political crisis followed conflict between the president and the prime minister. Further market turbulence in February 2001. Trading risk, funded by large, open foreign exchange position, was high.	Ongoing	80 banks *Of which* 29 private domestic 17 foreign banks 4 state-owned 11 intervened 19 investment and development	End-2001:61 banks *Of which* 22 private domestic 15 foreign 3 state-owned 6 intervened 15 investment and development	June 2002: 30.5
Venezuela	January 1994: Failure of Banco Latino. Supply shock (oil prices fell) and interest rate rise undermined credit quality. Political instability and expectations that bank regulation reform might reveal insolvencies led to capital flight.	End-1995: Deposits stopped falling and bank closures ceased through second half of 1995.	47 commercial banks *Of which* 37 domestic private 5 foreign 5 public 17 mortgage banks	End-1996: 38 commercial banks *Of which* 24 domestic private 7 foreign 7 public 6 mortgage banks	12.4

Sources: National authorities; various IMF staff reports, Selected Issues, and Recent Economic Development reports; and IMF staff estimates.

[1]Percent of market share shown in parenthesis, where available. For Argentina and Korea, percent of assets is shown; for Finland and Sweden, percent of loans; and for Indonesia, percent of deposits.

[2]Net cost to the public sector (see Appendix I).

Table AII.2. Crisis Outbreak and Containment: Financial and Monetary Measures

Country	Central Bank Liquidity Support	Blanket Guarantee	Capital Controls	Deposit Freezes or Haircuts
Argentina	July 2001: Significant liquidity support began. End-April 2002: Stock outstanding was Arg$5.2 billion (5 percent of GDP).	Not provided. A limited guarantee of up to Arg$30,000 per depositor exists.	December 2001: Controls introduced and revised frequently since. Convertibility ended January 2002, with a dual exchange rate regime in place until February 2002. Other controls included the deposit freeze, prior authorization requirements for transfers abroad, and import payment restrictions.	December 2001: *Corralito* was imposed, which limited cash withdrawals and forced domestic payments into the banking system. February 2002: Forced conversion of dollar accounts into pesos took place.
Ecuador	March 1999: Peak stock of support was US$1.7 billion (146 percent of net international reserves, 177 percent of currency in circulation, and approximately 13 percent of GDP). Support was provided through central bank loans (using banks' loan portfolio as collateral) and rediscounts of recapitalization Deposit Guarantee Agency bonds.	December 1999: Guarantee was approved, replacing a limited guarantee of up to US$8,000 per account. Guaranteed deposit payments reached approximately US$1.8 billion, of which some US$1 billion were still pending in Q2 2002. Guarantee still in place.	March 1999: Most bank deposits were frozen. No explicit capital controls were introduced.	March 1999: All bank deposit balances above a certain threshold and all investment fund participations were frozen. Sight deposits were liberalized gradually, a process completed in September 1999. March 2000: Most time deposits were liberalized, although small amounts remain frozen in state-controlled banks.
Finland	The central bank supported Skopbank with a total of Fmk 14 billion in 1991 and 1992, in the context of its takeover and restructuring.	February 1993: Announced when the Government Guarantee Fund (GGF) was reorganized. The GGF was authorized to use up to Fmk 20 billion to cover deposits and contingent and foreign currency liabilities of the banks, replacing the previous partial deposit guarantee.	. . .	. . .
Indonesia	August/September 1998: Peak stock of support was Rp 150 trillion (16 percent of GDP). Support was provided through overdrafts with the central bank.	January 1998: Introduced; covered deposits and contingent and foreign liabilities. There was no existing formal deposit insurance. The guarantee is still in place and administered by the central bank.	August 1997: Limits on forward sales of foreign exchange by domestic banks to nonresidents (excluding trade and investment-related transactions) were imposed. November 1997: Limits were removed thereafter.	. . .

Table AII.2 *(concluded)*

Country	Central Bank Liquidity Support	Blanket Guarantee	Capital Controls	Deposit Freezes or Haircuts
Korea	December 1997: Peak stock of support was US$23.3 billion (5 percent of GDP), plus won 11.3 trillion (2.5 percent of GDP). Support was provided through central bank loans and deposits. Fully repaid by April 1999.	August 1997: External liabilities of banks were guaranteed, and a deposit guarantee was extended in mid-November 1997, until the end of 2000. The Korea Deposit Insurance Corporation, responsible for the existing partial guarantee, also administered the blanket guarantee.	December 1997: Though no formal controls were imposed, foreign private bank creditors agreed to temporarily maintain exposure. January 1998: Short-term debt rescheduling was agreed with foreign creditors.	. . .
Malaysia	January 1998: Peak stock of support was RM 35 billion (13 percent of GDP). Support was provided through central bank deposits, most of which had been repaid by end-1998.	January 1998: Guarantee covering only deposits announced. The guarantee was administered by Danamodal. There was no explicit deposit insurance before the crisis. Guarantee still in place.	September 1998: A number of exchange control measures were introduced, aimed at eliminating the offshore ringgit market and restricting the supply of ringgit to speculators. Also, the exchange rate was pegged at 3.8 ringgit per U.S. dollar.	. . .
Mexico	April 1995: Peak stock of support was US$46 billion. Fully repaid by September 1995.	Implicit protection for all liabilities except subordinated debt existing prior to the crisis through the Banking Fund for the Protection of Savings (FOBAPROA). April 1995: The government ratified the guarantee. Guarantee in place until 2003.	. . .	. . .
Russia	Peak support of Rub 105–120 billion (4 percent of GDP) was reached between August and October 1998. Support was provided through central bank loans (mainly to 13 banks) of up to one year.	Blanket guarantee not extended. However, the authorities transferred household deposits from a large number of private banks (which had frozen deposits) to Sberbank (a state-owned savings bank), where deposits were guaranteed by the government.	A 90-day moratorium was declared on private sector payments of external liabilities. Conversion operations for nonresident accounts used for investing in ruble-denominated government securities (S accounts) were suspended. Nonresidents not participating in government securities restructuring operations had their balances on those accounts frozen. The surrender requirement on exports increased to 75 percent from 50 percent, and a 100 percent deposit requirement on advance payments for imports was introduced.	There were no official measures. However, a number of large banks unilaterally froze deposits, while others introduced administrative means of discouraging withdrawals. These measures were permitted, though not officially sanctioned.

Sweden	During the currency crisis (September 1992), the central bank deposited part of the foreign exchange reserves in the banks, thereby insuring liquidity against problems with international funding.	Announced in October 1992, it was approved in parliament in December. Deposits, and contingent and foreign liabilities of the banks, their subsidiaries, and some specialized financial institutions were covered. There was no existing formal deposit insurance scheme. The blanket guarantee was fully funded from the budget and administered by the Bank Support Agency (BSA).	. . .	. . .
Thailand	Peak stock of support was B 1 trillion (22 percent of GDP) in early 1999. Most was given between mid-1997–mid-1998 (B 531 billion in FY 1996/97, of which B 394 billion to 66 finance companies and the remainder to 7 private banks, as well as B 39 billion to 2 public banks in FY 1998/99). Support was provided through loans, most of which were later converted into capital support.	A formal announcement was made in August 1997. Most elements were informally in place beforehand. Deposits, and contingent and foreign liabilities were all covered. There was no existing formal deposit insurance scheme. The guarantee is still in place, administered by the Financial Institutions Development Fund, an entity within the central bank.	The authorities implemented a series of measures limiting transactions that could facilitate the buildup of baht positions in the offshore market, to limit baht lending to nonresidents.	. . .
Turkey	September 2001: The stock of credit amounted to TL 6 quadrillion (US$4 billion, or 3.3 percent of GDP), provided mostly through the Deposit Guarantee Agency and repos with the central bank.	An unofficial guarantee has been in place since 1997. It was officially confirmed in December 2000. All liabilities of deposit taking banks were guaranteed by the Savings Deposit Insurance Fund. Guarantee still in place.	. . .	. . .
Venezuela	The central bank provided liquidity both directly and through the Deposit Guarantee Fund. Banco Latino alone owed the central bank Bs 23 billion (US$220 million) at the time of intervention (it was the first and largest bank to fail).	No blanket guarantee was extended. The ceiling under the existing partial guarantee was raised (at different times for different institutions) to Bs 10 million by July 1995 from Bs 1 million (US$9,300). Liabilities in off–balance sheet companies related to commercial banks (e.g., offshore subsidiaries) were eventually included in the guarantee in July 1995.	June 1994: Exchange controls were imposed, with all foreign currency purchases frozen for two weeks. After this, foreign currency could be bought for only specified transactions, and exporters were obliged to sell all foreign currency earnings. A fixed exchange rate was adopted.	January 1994: Banco Latino was closed for 77 days; depositors were not able to access their funds. Access to deposits under the guarantee or through deposit transfers to other institutions was more prompt in subsequent interventions. Deposits above Bs 10 million were replaced with long-term nonnegotiable bonds at below market rates.

Sources: National authorities; various IMF staff reports, Selected Issues, and Recent Economic Development reports; and IMF staff estimates.

Table AII.3. The Restructuring Phase: Judicial and Institutional Measures

Country	Legal and Judicial Reform	Institutional Arrangements for Restructuring	Resolution Techniques (Closures/Mergers/Sales)
Argentina	. . .	. . .	End-2002: One foreign bank and two small domestic banks were suspended and subsequently purchased by local banks; a joint-venture bank was absorbed into a fully owned subsidiary; a foreign group withdrew from Argentina and their three banks were taken over; two domestic banks were restructured using public and private funds. No depositor losses were imposed.
Ecuador	December 1999: The AGD was created to be in charge of administering the blanket guarantee and bank restructuring. April and June 2000: Changes to the banking law were introduced to provide the legal basis for crisis management, albeit partially. Key issues, such as legal protection for public officers in charge of bank restructuring, have not yet been addressed.	The AGD was in charge of bank restructuring (as well as impaired assets and disposals of intervened banks). Its board was headed by the superintendent of banks; its members also included the president of the central bank and representatives of the ministry of finance and the president of the Republic. September 2001: Main responsibility for bank restructuring (including the presidency of the AGD board) was transferred from the superintendent to the minister of finance.	Fourteen banks (including some initially recapitalized by the government) were closed between August 1998 and August 2001, representing over 50 percent of the system's total precrisis assets. All eight offshore subsidiaries of closed banks were also closed, as were all trust funds and other financial companies belonging to the closed banks' groups. Of the three banks intervened in November 1999, two were merged (Previsora with Filanbanco and Pacifico with Continental). The latter is a commercial bank fully owned by the central bank. The third one, Banco Popular, was closed in April 2000.
Finland	February 1993: the Banking Supervision Office, which had been part of the ministry of finance, was made an autonomous unit within the central bank (it was renamed the Financial Supervision Authority).	April 1992: The GGF was created to administer the blanket guarantee and deal with restructuring, at first with no full time staff. The ministry of finance, Banking Supervision Office, and central bank were represented on the board.	February 1993: The GGF was reorganized and given full-time staff and a direct reporting line to the government (with only the ministry of finance now on the board). June 1992: Skopbank's subsidiaries' loan portfolios were sold to Handelsbanken (Sweden). June 1992: 41 savings banks were merged into the Savings Bank of Finland (SBF), which had been taken over by GGF. April 1993: STS-Bank and KOP Bank were merged, forming the largest commercial bank in Finland. October 1993: Business and share capital of the SBF were sold to four remaining private banking groups. Mid-1994: A majority stake in SBF was purchased by Arsenal asset management company.

Indonesia	August 1998: New bankruptcy law was introduced and special commercial court established. December 1998: Strengthened prudential regulations were passed addressing loan loss provisioning, connected lending, liquidity management, and foreign currency exposure. 1999: Legislation was passed to enhance the independence of the central bank.	January 1998: The Indonesia Bank Restructuring Agency (IBRA) was created to restructure banks and manage assets of closed banks, nonperforming loans of banks under restructuring, and assets pledged by shareholders as part of settlements. However, lack of clear legal foundations hampered IBRA's initial activities. October 1998: The IBRA was given powers to resolve banks without shareholder consent. February 1999: Implementing regulation for IBRA was enacted. The Financial Sector Policy Committee, with ministerial and central bank representation, was created to oversee the IBRA.	Between October 1997 and September 1998: 26 commercial banks were closed. March 1999: 38 banks (5 percent of liabilities) were closed. 1999: Four state banks (holding about 25 percent of total bank deposits) were merged to create Bank Mandiri.
Korea	December 1997: Laws were passed to strengthen the independence of the central bank and consolidate all financial sector supervision in one agency, the Financial Supervisory Commission (FSC)—later Financial Supervisory Service. June 1998: New, stricter regulations were adopted on connected lending, loan classification, and accounting standards.	April 1998: The FSC was established. Gradual unification of supervisory powers were completed in January 1999. Licensing and delicensing powers were granted in April 1999. Early 1998: The Financial Restructuring Unit was established within the FSC.	December 1997: Two large commercial banks were taken over and 14 merchant banks suspended, of which 10 permanently closed in January 1998. June 1998: Five small- to medium-sized banks were closed through purchase and assumption operations, and 12 weak institutions were encouraged to merge or find foreign shareholders.
Malaysia	1998: The Danaharta Act was passed.	June 1998: Danaharta (an asset management company) was established with powers to acquire nonperforming loans through statutory vesting and to appoint administrators to manage the assets. August 1998: Danamodal was established to recapitalize financial institutions. These organizations and the Corporate Debt Restructuring Committee (CDRC) are represented on the steering committee on restructuring, a coordinating body chaired by the central bank governor.	1999: A program was instituted to consolidate domestic banks, merchant banks, and finance companies into 10 banking groups. End-2000: Merger negotiations were concluded for 50 of 54 banking institutions, with one merger fully completed in March 2001. No financial institutions were closed outright.
Mexico	March 1995: New provisioning regulations requiring higher reserves were adopted. January 1996: New, stricter regulations on connected lending and loan classification were adopted.	The banking and securities supervisory agencies merged into the National Banking and Securities Commission (NBSC), which handled the crisis. No special powers were granted, but the NBSC had de facto enough authority.	Two banks were intervened in 1994 and a third bank in March 1995. Resolution is ongoing; bank viability is decided on a case-by-case basis as part of a gradualist approach.

Table AII.3 *(concluded)*

Country	Legal and Judicial Reform	Institutional Arrangements for Restructuring	Resolution Techniques (Closures/Mergers/Sales)
Russia	March 1999: A bank insolvency law was passed. July 1999: A bank restructuring law was passed, permitting revocation of bank licenses on the basis of insolvency. Further legal reforms were implemented, including amendments to the banks and banking activities law and more recently on anti money laundering. 2002: The central bank and government adopted a joint strategy paper for the reform of the banking sector.	November 1998: The Agency for Restructuring Credit Organizations (ARCO) was established. Institutional changes were made in the central bank, reforming and consolidating supervisory functions.	Six of the larger banks were intervened after the bank restructuring law passed, of which three (now under ARCO control) are currently in liquidation. A number of other banks were required to submit restructuring plans, and still others were transferred to ARCO.
Sweden	December 1992: The Bank Support Act was passed, providing support at the lowest cost to the state in the form of guarantees or capital.	May 1993: The Bank Support Agency was formally created. Analyses of the loan portfolios and financial prospects of banks were used to determine the form and conditions under which support would be provided. Operations wound down in 1996.	No banks were closed at the containment stage. 1993: Gota Bank was taken over after becoming insolvent, and then merged with Nordbanken; Gota's nonperforming loans were transferred to the asset management company Retriva.
Thailand	October 1997: An amendment to the Commercial Banking Act gave the central bank specific powers to write down capital and change management in troubled banks.	The FIDF, established during the previous crisis in the 1980's, was used to provide liquidity support. October 1997: The Financial Sector Restructuring Authority was established to liquidate insolvent finance companies. August 1998: Comprehensive financial sector restructuring package was announced. A high-level financial restructuring advisory committee was created to advise the ministry of finance and the central bank. De facto authority for restructuring lies with the finance ministry.	June and August 1997: 58 finance companies were suspended, of which 56 were closed in December 1997; a further 13 were merged at this time. Three banks were intervened from December 31, 1997 to end-January 1998. A further two banks were intervened in August 1998 and one more in July 1999. Since June 1997, one of these banks has been closed and another three merged with state-owned banks.
Turkey	The legal and regulatory framework has undergone major reforms since 1999 and was found to conform to EU and international standards by end-2001. A new banking law was passed, as were prudential regulations on loan loss provisioning, large exposure limits, connected lending, foreign exchange exposures, consolidation, risk management, fitness and propriety criteria for owners and bank managers, and new accounting standards.	The Banking Regulation and Supervision Agency was established just before the crisis; it also manages the Savings Deposit Insurance Fund (SDIF). A collection department has been set up within the SDIF to maximize loan recoveries on bad assets from banks in resolution. An intervened bank is being used as a bridge bank to deal with performing assets.	As of end-November 2002, twenty private banks have been taken over by the SDIF (two in 1997/98, six in late 1999, three in 2000, two in early 2001, six in mid-2001, one in November 2001, and one in June 2002). Of these, twelve banks have been resolved through merger, five were sold, while one was put under liquidation and two remain under the management and control of the SDIF.

			In addition, the banking licenses of one state bank and three investment banks have been revoked. The number of mergers among private banks has been limited.
Venezuela	November 1993: Before the crisis began, legal reforms strengthening the supervisory framework and powers of intervention and resolution of the supervisory authorities were passed. They were not properly implemented at that time, however. July 1995: The Financial Emergency Law was passed, clarifying the institutional structure for dealing with the crisis and eliminating obstacles for liquidation of assets transferred to the state.	Responsibility was at first shared (in ill-defined ways) between the supervisory authorities, the Deposit Guarantee Fund (which also had recapitalization powers), and the central bank, with the finance minister having the final authority on closures and resolutions. June 1994: The Financial Emergency Board was created to manage the crisis. It included representatives of the three institutions, and was chaired by the minister of finance.	From January 1994 to August 1995, 17 commercial banks were taken over, of which 11 were eventually closed, and 2 were merged and subsequently sold to a private bank. Also closed during the crisis were 8 mortgage banks, 14 investment banks, 13 leasing companies and 1 finance company.

Sources: National authorities; various IMF staff reports, Selected Issues, and Recent Economic Development reports; and IMF staff estimates.

Table AII.4. The Restructuring Phase: Financial and Corporate Measures

Country	Publicly Funded Recapitalization/Restructuring	Gradualism in Meeting CAR/ Provisioning Rules	Corporate Restructuring
Argentina	U.S. dollar and peso bonds were issued to compensate banks for asymmetric currency redenomination (from U.S. dollars to pesos) of assets and liabilities.	…	…
Ecuador	December 1998: Filanbanco, the largest bank in the country, was intervened. Shareholders equity was reduced to zero, and the bank was recapitalized with government bonds. August 1999: Four banks were recapitalized with subordinated loans from Filanbanco (which had to be recapitalized anew). Only the smallest bank repaid; the other three were intervened and recapitalized in November 1999. May 2001: Filanbanco was recapitalized, for the third time, with nonnegotiable bonds. Liquidity problems persisted leading to closure in August 2001. December 2001: Banco del Pacifico was recapitalized again by the central bank.	July 2000: New asset classification and provisioning rules were approved. The provisioning deficit was phased in over two years. November 2001: New CAR regulations were approved, and banks were given two years to adjust their asset weighting and tier capital composition to the new requirements.	An initial debt-restructuring program was implemented for debtors with total debts to the financial system of up to US$50,000. These represented 92 percent of debtors but only 12 percent of system assets. The program extended loan maturities and introduced gradually increasing payment schedules. A program for debts over US$50,000 was introduced, on the basis of voluntary agreements, avoiding bailouts or direct fiscal subsidy. January 2001: A program began that provided incentives for the use of automatic out-of-court foreclosure procedures in cases of failure to restructure nonperforming loans. November 2001: A further modification was introduced when an international debt negotiator was hired to represent the interests of all closed banks.
Finland	September 1991: The central bank took over Skopbank, committing about Fmk 14 billion in liquidity support and restructuring costs. June 1992: The GGF acquired Skopbank. Asset management companies for real estate and industrial holdings remained with the central bank. Also, the GGF took over the SBF. Nonperforming assets were transferred to Arsenal, an asset management company, in October 1993. 1992: The government injected Fmk 7.9 billion into deposit banks to increase Tier 1 capital.	…	…

Indonesia	April-May 1998: Four banks were taken over by IBRA. March 1999: Eight banks were taken over. Nine private banks became eligible for joint public/private recapitalization. Of these, eight were recapitalized and one was taken over in 2001. A total of Rp 649 trillion of recapitalization bonds were issued, of which Rp 431 trillion to recapitalize state banks and banks taken over, as well as to support joint public/private recapitalization. The remaining Rp 218 trillion was used for liquidity support and the blanket guarantee.	4 percent CAR until end-2001, when banks had to reach 8 percent Phase-in of loan-loss provisioning requirements, end-December 1998 to end-June 2001 Phase-in of legal lending limits from 1998 to end-2002 Phase-in of net open position limits from end-June 1999 to end-June 2000	August 1998: The Indonesian Debt Restructuring Agency was established to settle foreign currency–denominated debts at an agreed exchange rate. It became inactive due to lack of agreement on exchange rate and grace period. September 1998: The Jakarta Initiative Task Force was established to facilitate out-of-court settlements in joint creditor negotiations with debtors (London Club rules).
Korea	The government injected US$36 billion into nine commercial banks; five out of six major banks ended up 90 percent controlled by state. Bonds, cash budgetary allocations, and asset swaps were used to purchase shares, subordinated debt and nonperforming loans, and to repay depositors.	No gradualism. Recapitalization of surviving banks was sufficient for them to meet CARs.	Creditor-led, extra-judicial resolution framework was established based on the London Approach.
Malaysia	Danamodal injected US$1.7 billion into 10 institutions. Bonds and cash budgetary allocations were used.	January 1998: New rules for loan classification came into effect. March 1998: CAR of finance companies rose to 9 percent from 8 percent, to be implemented by end-1998, and then to 10 percent by end-1999.	The Corporate Debt Restructuring Committee (CDRC) provided a platform based on the London Approach for borrowers and creditors to work out debt-restructuring schemes. The CDRC was set up to mediate restructurings (based on London Club rules) of large corporate sector loans.
Mexico	March 1995: A program for temporary recapitalization was started. All amounts were repaid promptly and in full. Bonds and cash budgetary allocations were used.	. . .	December 1995: A debt-restructuring scheme based on out-of-court agreements for large debtors was implemented. There are several specific programs for diverse categories of small debtors, including households.

Table AII.4 *(concluded)*

Country	Publicly Funded Recapitalization/Restructuring	Gradualism in Meeting CAR/ Provisioning Rules	Corporate Restructuring
Russia	July 1999: The central bank referred nine banks to ARCO for examination; ARCO took control of six. Of the three not under liquidation, two reached settlements, and the other had its license revocation overturned in court. A further 46 banks volunteered for consideration by ARCO, of which 15 received approval for the restructuring program. As of mid-January 2003, two banks remained in restructuring processes under ARCO control.	Since January 1, 2000, risk-weighted capital ratio for banks with capital in excess of €5 million is 10 percent; for those with capital of less than €5 million, the ratio is 11 percent.	. . .
Sweden	State support amounted to SKr 65 billion (4.4 percent of GDP) in the form of cash allocations from the budget. Of this, 98 percent went to two banks (Nordbanken and Gota Bank) and their respective asset management companies, Securum and Retriva; 86 percent of total support was used for capital injections and 10 percent for share purchases.	No gradualism. Recapitalization of surviving banks was sufficient for them to meet CARs.	. . .
Thailand	Two capital support schemes were used: Tier 1: After existing shareholders made full provisions for loan losses and presented an operational restructuring plan, the government injected capital sufficient to raise the Tier 1 ratio to 2.5 percent. Thereafter, the government matched private capital injections. Tier 2: Nontradable bonds (in return for debentures) were given in cases of voluntary corporate debt restructuring. Support was in proportion to the debt writedown or new net lending, and conditions and maxima applied The FIDF has been financed through the central bank, borrowing on the money market, including through repo operations, and recoveries from FRA's sales of assets.	October 1997: A requirement was imposed to first write down and then increase capital, and to meet new, more stringent rules. March 1998: New rules were issued on loan loss classification, loss provisioning, and interest suspension. Loss provisioning requirements were tightened by 20 percent every six months starting July 1998, to be fully implemented by end-2000.	August 1998: A framework for voluntary workout (Bangkok Approach) was announced. April 1998: The Bankruptcy Act was amended to permit court-supervised reorganizations. June 1998: The Corporate Debt Restructuring Advisory Committee was established. March 1999: The Bankruptcy Act was amended to facilitate court-supervised reorganizations, and a model debtor-creditor agreement was issued. The law establishing the Thai Asset Management Corporation (TAMC) emphasizes its role in promoting the continuation and revival of businesses by enabling debt repayment. Extensive and flexible powers to resolve problem loans through debt restructuring, business reorganizations, and foreclosure were granted under the law.

Turkey	By end-2002, financial restructuring of state banks was completed. They had returned to profit, and operational restructuring was well advanced, with significant branch closures and personnel reductions. Public support for private bank recapitalization is provided with certain safeguards through the SDIF, matching private sector injections of Tier 1 capital up to a Tier 1 CAR of 5 percent, and then Tier 2 capital up to a combined CAR of 9 percent. No Tier 1 capital has been provided and only one bank has applied for Tier 2 support, given in the form of seven-year, market rate–bearing bonds.	As of end-2002, there has been no supervisory forbearance, such as phasing in of CAR or provisioning requirements.	As of October 2002, 169 firms had applied for financial restructuring of their debts (approximately US$2.9 billion) under an Istanbul Approach framework for large debts. Of these, the debts of 28 firms had been restructured.
Venezuela	Five of the banks in which the state intervened remained open and received substantial state funds for recapitalization. Four were eventually privatized, and the fifth, Banco Latino, was finally liquidated in June 1997.	November 1993: A banking law was passed that called for increases in risk-weighted capital/ asset ratios as follows: • by June 30, 1994: 6.5 percent • by December 31, 1994: 7.0 percent • by June 30, 1995: 7.5 percent • by December 31, 1995: 8.0 percent In practice, full recapitalization occurred only as foreign banks entered the system in 1996.	No explicit corporate restructuring programs were adopted, but over 1,000 nonfinancial enterprises fell into state hands as a consequence of the crisis. Most were closed.

Sources: National authorities; various IMF staff reports, Selected Issues, and Recent Economic Development reports; and IMF staff estimates.

Table AII.5. Management of Impaired Assets

Country	Strategy and Objectives of Centralized Asset Management Companies, Where Relevant	Funding for Asset Management Company Purchases	Criteria for Asset Transfer	Transfer Price	Outcome
Argentina	…	…	…	…	…
Ecuador	The assets of the intervened banks were never transferred to a centralized asset management company. The Deposit Guarantee Agency (AGD) manages the assets of the 11 banks closed in 1998 and 1999, and some of those of the bank closed in 2000 (the rest were transferred to an acquiring bank), but these assets remain the property of each bank and are not managed jointly. It is unclear which strategy will be followed to manage the assets of the merger of Filanbanco and Previsora, closed in 2001.	The AGD funded recapitalization by issuing bonds.	Intervention: Open banks managed their own impaired assets.	…	Only some 3 percent of impaired assets have been sold by the AGD in exchange for certificates of frozen deposits at closed banks. Other closed banks sold assets prior to their closure, amounting to some 10 percent of total impaired assets. Open bank nonperforming loan levels fell to precrisis levels (below 10 percent) by 2001. By end-2001, nonperforming loans at the only open intervened bank (Pacifico) had risen to over 60 percent, while nonperforming loans accounted for over 90 percent of the AGD-managed portfolio.
Finland	Initially, the central bank, and then the GGF, managed the impaired assets of intervened institutions. Arsenal asset management company took over remaining assets in mid-1994. June 1992: Skopbank's loan portfolio was sold to Handelsbanken of Sweden. The central bank retained real estate and industrial portfolios. April 1993: STS and KOP banks merged; the former became the asset management company for the merged bank, retaining all nonperforming loans and other bad assets. Though the merged bank owned STS and was liable for some of its losses, effective control was held by the GGF.	Arsenal received government funding (Fmk 23 billion), and guarantees (Fmk 28 billion). The GGF was funded by the government.	Intervention: Open banks managed their own impaired assets.	…	Arsenal continues in operation. Recoveries have been poor.

	October 1993: Arsenal was created to manage impaired assets of the SBF, valued at Fmk 40 billion.				
Indonesia	Indonesian Bank Restructuring Agency's mandate included management and disposal of assets from recapitalized and closed banks and nonbanks, and assets pledged by shareholders in settlement agreements.	Asset recoveries	Loss loans of recapitalized and state banks; all assets of closed institutions	Zero	Cash collections, auction of loan portfolios Recoveries at end-2001 amounted to about 8 percent of face value of assets transferred (which totaled Rp. 550 trillion), with a further 5 percent received in interest and fees. Fair value of the assets transferred from closed banks (about 50 percent of the total, all nonperforming) was estimated by IBRA to be only 22 percent of book value at end-2000.
Korea	Late 1997: The (preexisting) Korea Asset Management Corporation was given enhanced resources and powers to purchase, manage, and dispose of impaired assets from open banks and dispose of state-owned assets.	Government-guaranteed bonds, contributions from financial institutions, and loans from state development bank	All nonperforming loans and loans approved in court for restructuring	Secured assets: 45 percent of collateral value Unsecured: 3 percent of face value Restructuring: Net present value of future cash flow Discount as of December 2001: 62 percent	Cash collections About one-third of the stock of assets acquired was sold between December 1997 and June 1999, rising to half by December 2001. The average recovery rate was 46 percent of face value.
Malaysia	June: 1998: Danaharta was created to purchase, manage, and dispose of impaired assets from open banks, finance companies, and merchant banks, and to manage non-performing loans of closed public banks and intervened banks.	Government funding, loans from state holding company, and government-guaranteed bonds	Nonperforming loans over RM 5 million at market value Assets managed for recapitalized banks: Nonperforming loans over RM 1 million	Secured: Collateral value Unsecured: 10 percent of principal Recovery surplus shared with bank 20/80 Average discount as of June 2002: 54 percent	As of March 31, 2001, Danaharta had restructured or disposed of loans and assets with a gross value of RM 38.7 billion (of a total acquired or under management of RM 48 billion) with an average recovery rate of 60 percent of face value. Expected recovery rate as of June 2002: 57 percent, of which 25 percent restructuring, 16 percent fore-closures, and 8 percent superpowers.
Mexico	Banking Fund for the Protection of Savings' (FOBAPROA's) mandate included purchase, management, and disposal of impaired assets from open banks from 1990–98. When Bank Savings Institute (IPAB) was created (replacing FOBAPROA as deposit guarantee agency), it became a trustee for FOBAPROA assets, and was given authority to manage and dispose of closed banks' assets.	FOBAPROA: Fees from financial institutions, central bank loans, bonds IPAB: Fees, government-guaranteed bonds	Nonperforming loans selected by selling banks IPAB inherited assets and cannot acquire new loans.	To FOBAPROA at book value IPAB assumed FOBAPROA's debts.	Cash collections from auctions of loan portfolios and other assets Only 0.5 percent of transferred assets have been sold (at 15 percent average recovery).

Table AII.5 *(concluded)*

Country	Strategy and Objectives of Centralized Asset Management Companies, Where Relevant	Funding for Asset Management Company Purchases	Criteria for Asset Transfer	Transfer Price	Outcome
Russia	No official action was taken. The nonperforming loans of banks being restructured by Agency for Restructuring Credit Organizations were not managed separately or sold.	…	…	…	…
Sweden	Two asset management companies were created. In the spring of 1992, Nordbanken was split into a "good bank" that retained performing assets and an asset management company, Securum, which took over SKr 67 billion of bad loans. In 1993, the nonperforming loans of Gota Bank were transferred to a specially created asset management company, Retriva. The two asset management companies were merged in December 1995 (becoming Securum).	Government and intervened bank funding	Nonperforming loans over SKr 15 million at book value	Book value, partial state guarantee	Securum was dissolved at the end of 1997. The process of selling the bad assets was much faster than initially anticipated. All assets and intervened banks sold within five years (at 56 percent average recovery).
Thailand	October 1997: The Financial Sector Restructuring Authority (FRA) was established to liquidate insolvent finance companies and dispose of their assets. A scheme encouraging creation of private asset management companies to purchase, manage, and dispose of banks' own impaired assets met with little success. A public AMC was set up to handle impaired assets from the FRA and intervened banks.	The FRA was financed by the government. TAMC is financed through government funding, bank fees, government-guaranteed bonds, market loans, and asset recoveries.	For the FRA, all assets of closed finance companies TAMC may purchase any nonperforming loan of the state banks and large, collateralized, multi-creditor nonperforming loans from private banks on a voluntary basis.	FRA took the assets at book value minus provisions. TAMC buys assets at the lower end of independently verified collateral value or book value minus provisions. Revenue/loss-sharing: Maximum bank loss is 30 percent of transfer price.	Of the B 860 billion in finance company assets managed by the FRA, B 206 billion were sold to the private sector, and B 185 billion to the government asset management company. Total recoveries to the FRA were about B 96 billion (25 percent of face value), and auctions were completed in four years. About one-half of the financial sector's nonperforming loans (of which 80 percent from the state banks) are expected to be acquired by TAMC.

	June 2001: The TAMC was established to purchase, manage, and dispose of assets from open banks and private asset management companies. TAMC can acquire nonperforming loans from private banks on a voluntary basis. If private banks do not transfer eligible loans, they must submit to an independent revaluation of loan collateral and make up any provisioning shortfall.				As of June 2002, one-third of transferred assets had been restructured or were under liquidation.
Turkey	A collection department was set up within SDIF to manage the bad assets of banks in resolution. A bridge bank is used for performing assets. The authorities have also passed regulations enabling the creation of private asset management companies to purchase nonperforming loans from operating banks.	SDIF was capitalized with government bonds and receives deposit insurance fees from banks.	Intervention: As of November 2002, private asset management companies were not yet in operation.	SDIF considered impaired assets based on book value.	The process is still at an early stage, although SDIF aims to dispose of assets rapidly.
Venezuela	The FOGADE, a deposit guarantee fund, was responsible for managing and selling the assets of banks that had been taken over.	FOGADE was financed by the government and the central bank.	Intervention: Open banks retained their impaired assets.	Not available	The last part of the process began with the final closure of Banco Latino in June 1997, with Bs 100 billion of nonperforming loans and other assets on its books. Recovery rates appear to have been low throughout.

Sources: National authorities; various IMF staff reports, Selected Issues, and Recent Economic Development reports; and IMF staff estimates.

Table AII.6. Exit from the Crisis

Country	Exit from Blanket Guarantee	Status of Reprivatization	(New) Deposit Insurance Scheme	Fiscalization of Costs[1]
Argentina	…	…	…	…
Ecuador	April 2000: The law was changed to phase out the blanket guarantee starting in April 2001.	All banks under public control were eventually closed except Banco del Pacifico November 2001: A firm was appointed to manage and restructure the bank, but no dates have been given for the intended sale.	April 2004: A limited guarantee of up to US$8,000 per account will be reintroduced.	Not all central bank costs have been fiscalized, although the majority have through the issue of AGD bonds.
Finland	1998: The guarantee was rescinded (unannounced). Virtually all remaining guarantees arising from the crisis had expired by end-2000.	October 1993: The SBF was sold to the remaining Finnish banking groups. Skopbank remains state owned (directly and through Arsenal). It now functions as an asset management company for real estate assets acquired during the crisis.	1998: A new limited insurance scheme to replace the blanket guarantee was created with coverage up to approximately US$27,000 per depositor.	Central bank liquidity support totaled Fmk 13.7 billion in 1991 and 1992, of which Fmk 1.4 billion was fiscalized from the sale of Skopbank to the GGF. More income accrued to the central bank from the sale of Skopbank's corporate and real estate portfolio that had remained with the central bank. The remainder of the central bank's outlays were not explicitly fiscalized.
Indonesia	Guarantee still in place; no removal date has been announced.	March 2002: A majority stake in Bank Central Asia (about 9 percent market share by deposits) was sold to a foreign investor. November 2002: Bank Niaga (about 2.5 percent market share) was sold to a foreign bank.	Under development	Although the government has issued bonds to the central bank, a final burden-sharing agreement has not been reached. End-January 1999: The government issued bonds to repay liquidity support outstanding of Rp 144.5 trillion. December 2002: A further agreement swapped bonds on the central bank's balance sheet that resulted from provision of liquidity support for redeemable government debt.
Korea	December 2000: The guarantee was rescinded on schedule.	Government ownership reduced to below 50 percent for three banks, with partial sales achieved for a number of others.	January 2001: Partial deposit insurance was reintroduced, managed by Korea Deposit Insurance Corporation.	Central bank support was repaid in full by April 1999.
Malaysia	A blanket guarantee is still in place; no removal date has been announced.	…	A new deposit insurance scheme to replace the blanket guarantee is being considered under the first 3-year phase of a 10-year financial sector master plan.	Liquidity support was provided in the form of central bank deposits to banks. Most of the loans had been repaid by end-1998, and therefore central bank liquidity support was not fiscalized.

Mexico	A blanket guarantee is in place until end-2003.	. . .	1999: A new deposit insurance law was passed and a new agency, IPAB, was created. The intended deposit insurance reform (discussed before the crisis) was postponed.	Central bank support was repaid in full by September 1995, so it was never fiscalized.
Russia	. . .	As of mid-January 2003, ARCO had sold its shares in 11 banks in open auctions and transferred another to the Russian Federation Property Fund. ARCO retains shares in two banks.	A deposit insurance scheme is being introduced selectively for banks completing the restructuring process. Five banks were covered as of July 2002.	Costs were not fiscalized.
Sweden	July 1996: The blanket guarantee was repealed by parliament and replaced by a limited deposit insurance scheme.	October 1995: The government sold 34.5 percent of its ownership stake in Nordbanken, retaining 59.4 percent.	July 1996: A new deposit insurance scheme was introduced.	Costs were fiscalized: when liability guarantees—the main mechanisms of support—were called, they were honored through payments directly from the budget.
Thailand	A blanket guarantee is still in place.	August 1998: The authorities decided to merge one of the intervened banks with an existing state-owned bank. As of end 2002, two of the intervened banks have not been privatized.	The authorities are working on the introduction of a limited deposit insurance scheme.	The FIDF borrowed from the central bank to provide loans and inject capital to troubled institutions. The stock at peak amounted to B 1 trillion in early 1999, of which B 500 billion was fiscalized. FIDF claims on financial institutions had declined to B 227 billion by end-1999.
Turkey	A blanket guarantee is still in place. It has been agreed to give market participants a one-year advance notice before removing the guarantee.	As of mid-2003, out of 20 intervened banks, one has been put up for sale, and two are in the process of being liquidated. The remaining 17 have been liquidated.	When the blanket guarantee is abolished it will be replaced by a limited deposit insurance scheme, expected to be in line with EU standards.	The cost was initially covered by the government, who provided the necessary securities to the SDIF. SDIF will partially repay the government through selling of shares as part of the recapitalization and by using fees that banks have to pay for the limited deposit insurance scheme.
Venezuela	. . .	The process is complete. Banks were sold between December 1996 and December 1997 (four to foreign banking groups); two were merged and sold to Banco Provincial, which was bought by a foreign group in December 1996. Banco Latino's branches were sold, and the remainder of the bank was liquidated.	The limited insurance scheme envisioned in the November 1993 law has been implemented.	The central bank provided support to banks directly and through Fund/FOGADE. Government debt was issued to capitalize FOGADE on two occasions: Bs 400 billion (US$3.5 billion) in 1994 and Bs 200 billion (US$0.5 billion) in 1996. FOGADE issued a further Bs 367 billion (US$1.5 billion) in December 1995, allowing partial repayment of the debt to the central bank. Central bank outlays had, however, been considerably higher, and the difference was never explicitly fiscalized.

Sources: National authorities; various IMF staff reports, Selected Issues, and Recent Economic Development reports; and IMF staff estimates.
[1]Whether central bank losses were reimbursed by the government.

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