CHAPTER FIVE

Banking Crisis Resolution

DEALING with a systemic banking crisis surely ranks among the most difficult challenges for policymakers around the globe, but especially for those in Latin America. As illustrated in Chapter 3, Latin America stands out for the frequency, depth, and costs of its banking crises. Multiple factors combine to produce this result, ranging from sharp macroeconomic imbalances that have severely weakened the operating capacity of the banking system, to inadequate regulatory and supervisory frameworks that have allowed an incipient problem to reach systemic proportions. As financial globalization continues to deepen, contagion has been added to the list of factors that contribute to the eruption of profound banking crises in the region, as testified by the recent distress in the banking system of Uruguay following the Argentine crisis.

Moreover, in a large number of cases, when a banking crisis hits a Latin American country, authorities find that they lack sufficient and adequate (economic, financial, and political) policy tools to effectively set in place a banking crisis resolution program. Not surprisingly, resolution is delayed, further increasing the overall cost of the crisis as the deterioration of asset quality is not contained and depositors flee the banking system, fearing that the absence of an effective program for resolution of the crisis will hurt them the most. Unfortunately, the long list of poorly resolved banking crises in the region has proven depositors right, leading to the low observed level of financial intermediation in the region.

This chapter derives lessons from recent experiences of banking crisis resolution in Latin America. The chapter shows that, even under very stringent constraints, countries can indeed put in place successful programs for restoring the solvency of the banking system. Moreover, the chapter argues that the process of banking crisis resolution is an indicator of a financial system's capacity to avoid future crises. Countries with successful programs of banking crisis resolution have in most cases been able to maintain financial soundness for extended periods of time. Conversely, countries where the resolution of crises has ended in severe bank disintermediation show a pattern of recurrent eruption of crises.[1] The explanation is straightforward: successful bank restructuring programs set up the right incentives for avoiding excessive risk-taking by banks in the future. Because an adequate resolution process improves the public's confidence in the capacity of the authorities to deal with future problems, the banking system becomes more resilient to upcoming adverse shocks and contagion.

MAIN OBJECTIVES

Two seemingly contradictory facts are often present during the process of resolution of systemic banking crises in emerging market economies. The first is that regulators and supervisors announce their intentions to contain the scope of the crisis and promptly bring the banking system back to solvency. The second is that long delays are observed in fully recognizing the extent of the problem and the difficulties in setting up a credible program for crisis resolution. A central explanation behind this apparent paradox lies in the scarcity of funds available to deal with the problem. After all, facing severe deficiencies in priority areas for development, why should the congress approve the allocation of resources for the resolution of banking crises? Although it is certainly undeniable that avoiding the eruption of a systemic banking crisis is a first-best solution, if the authorities find themselves facing a crisis, the critical questions that need to be answered have to do with costs and benefits. Why should restoring the banking system to solvency be given the highest priority, and at what cost to society?

To answer these questions, it is important to go back to the basic distinction between banks and other financial intermediaries. In developed and emerging market economies alike, the uniqueness of banks, namely their franchise value, lies in their special power to provide means of payments in noncash transactions (Corrigan 1991; Garber and Weisbrod 1992; Rojas-

[1] For the issue of avoiding banking crisis recurrence, see Rojas-Suárez (2002).

Suárez and Weisbrod 1995). When a bank customer withdraws funds from a bank account or writes a draft against that account, the bank delivers good funds—reserves on deposit held at the bank or the central bank, or cash—to the customer or to the bank of the payee named on the draft. In fact, when other liability issuers, such as money market mutual funds, promise to deliver payments, they promise to deliver bank deposits. Thus, as no other financial institution, banks are at the core of the payments system.

A disrupted or nonfunctioning payments system resulting from a systemic banking crisis is extremely costly to society because it severely inflates the costs of doing business and might even prevent the execution of essential transactions during the production/distribution/consumption process, with consequent detrimental effects on overall economic activity. *Therefore, restoring the functioning of the payments system needs to be the first objective of banking crisis resolution because an adequate payments system is essential for the appropriate operation of a market economy.*

What resources should be used to resolve a banking crisis? When a large portion of a country's banking system is threatened with insolvency, funds set aside to resolve isolated bank failures, such as deposit insurance funds and emergency central bank credit, are usually inadequate for the task at hand.[2] In other words, deposit insurance may be an adequate tool for preventing crises, but it will typically be insufficient for funding crisis resolution processes. In systemic crises, if the integrity of the banking system is to be maintained or restored, public funds must often be used to resolve bank failures. That is, a systemic banking crisis becomes a fiscal problem.

It should be clear, however, that the use of public money to solve a systemic banking crisis belongs to the family of second-best solutions. Ideally, systemic banking crises would be avoided by allowing some weak banks to fail, letting them be absorbed by other healthy institutions, perhaps from abroad, in a timely manner. If unsustainable policies at the macroeconomic level induced a crisis, financial transactions would migrate abroad. But the use of public funds to solve systemic banking crises may be justified on two grounds. First, mobility of bank capital across the world may be imperfect and slow due to uncertainties about the true value of the portfolio of banks in trouble. Second, given that banks play a crucial role in the payments system (and this system still remains in the national domain in most countries), public funds must be used to resolve individual bank problems to ensure that a banking system survives the crisis.

Regardless of whether the regulatory system has an explicit deposit insurance program, maintaining the integrity of the banking system requires that some bank liability holders be protected from the consequences of bank failure. Hence, the commitment of public funds for restructuring implies a transfer of resources from the public sector to the banking system. The objective of public policy is to ensure that the transfer is limited only to those parties whose protection from bankruptcy is necessary to preserve the integrity of the banking system. In other words, *the second objective of systemic banking crisis resolution should be to minimize the amount of public funds used in the restructuring process.*

PRINCIPLES AND CONSTRAINTS

As has been extensively documented, banking crises in Latin America have resulted in highly disintermediated financial systems in which depositors prefer short-term maturities and flee at the first sight of trouble. To provide a framework for comparing crisis management strategies across countries, this section identifies basic principles for effective banking resolution and discusses how these principles need to be adapted in the presence of the various constraints faced by emerging markets relative to developed countries.

Basic Principles

Analysis of several case studies suggests that reliance on three basic principles for bank restructuring programs has been a common factor in successful experiences of banking crisis resolution (Rojas-Suárez 2004). These principles are consistent with bringing the banking system back to solvency while minimizing the use of public funds. In all three principles, the common thread is the preservation or restoration of the payments system (Dziobek and Pazarbasiolgu 1997; Enoch, Garcia, and Sundararajan 1999; Hawkins and Turner 1999; Claessens, Klingebiel, and Laeven 2001).

Principle 1 is that a society should exert strong political will to make bank restructuring a priority, allocating genuine, noninflationary public funds to the resolution of the crisis. The importance of avoiding drastic increases in inflation during a restructuring program for the

[2] García (2000) discusses cases in which the establishment of a full deposit insurance guarantee during a banking crisis is warranted. However, the author recommends extreme caution because the guarantee needs to be credibly known as a temporary policy to avoid a deepening of moral hazard problems.

purpose of preserving the payments system cannot be overemphasized. Bank claims to deliver means of payment are more credible than claims of other liability issuers, partly because banks maintain deposits at the central bank and have access to a central bank facility, usually referred to as discount window privileges.[3] If the central bank were to extend large amounts of credit to banks to keep bank deposits liquid during a banking crisis, inflation would follow and the franchise value of banks would be severely curtailed because the real value of bank deposits would decrease. Hence, funding for successful banking crisis resolution needs to come from noninflationary sources.[4]

Principle 2 is to ensure that parties that have benefited the most from the risk-taking activities of the banking business bear a large portion of the cost of restructuring the banking system. For example, bank stockholders should be the first to lose their investment along with large holders of long-term liabilities such as subordinated debt. In addition, delinquent borrowers must not be given favorable treatment at public expense. In this regard, debtor programs need to be minimized. Excessive use of debtor programs in a number of Latin American countries has unnecessarily increased the fiscal cost of banking crisis resolution.

Indeed, a central component of a successful bank restructuring program consists of enhancing the ability of banks to recover problem loans. Regulators and supervisors of the banking system must ensure that banks develop procedures to monitor the ability of their loan customers to deliver cash. Proof of liquidity by borrowers is a requirement for achieving bank solvency on a sustainable basis. Thus, reconstructing or establishing a good monitoring system for borrowers both enhances banks' capacity to extend sound credit and protects their franchise value by helping to restore their credibility regarding the capacity to deliver liquid means of payment. In sum, executing the second principle not only limits current restructuring costs by forcing private parties to bear part of the loss, but also creates incentives to restrain risk-taking in the future, which strengthens the banking system in the long term by reducing potential moral hazard problems.

Principle 3 is that prompt action should be taken to prevent problem institutions from expanding credit to highly risky borrowers or capitalizing unpaid interest on delinquent loans into new credit. Execution of this principle implies implementing policies that distinguish between banks by quality and, therefore, reduces the moral hazard risk in bank restructurings that arises when institutions with low and declining net worth continue to operate under the protection of public policies designed to maintain the integrity of the banking system. This principle also implies that, when possible, insolvent institutions should be removed from the hands of current owners, through closure or sale.

To execute a successful rescue program, policymakers must faithfully adhere to all three principles. However, the ability of regulators to carry out these principles is affected by the economic environment in which they operate. Even if a society has mustered the will to fund a bank rescue, it may face a resource constraint that is so severe that it jeopardizes the success of the restructuring program. For example, an economy may not be able to access debt markets for funds. In this case, to finance bank restructuring it may be necessary to reduce fiscal expenditures in other areas. Obviously, as the funding constraint becomes tighter, the task of assigning priorities becomes more difficult.

Another constraint affecting the implementation of the principles is the availability of markets for financial institutions or for financial assets held by these institutions. The existence of such markets can be useful for minimizing public expenditure because they allow private investors to recognize the franchise value of a failed bank's customer base and its distribution system. Revenues from the sale of these valuable assets can be used to offset public absorption of credit losses.

If markets are large and funding is abundant relative to the size of the problem, regulators have a wide variety of choices available to resolve banking problems that can be classified into three broad categories: private sector merger or sale; takeover and management by the regulatory authorities; and, as a last resort, bailout of an existing institution with ownership left largely in place. These options are described in more detail in Box 5.1.

Differences in Constraints between Developed and Emerging Market Economies

Regulators in emerging market economies face more extreme constraints for banking crisis resolution than

[3] In dollarized economies, the credibility of banks to deliver means of payments is largely related to the dollar reserves they keep (either at the bank, at the central bank, or in other financial institutions). In this situation, a central bank's overall ability to provide liquidity to banks is constrained by its holdings of net international reserves.

[4] Honohan and Klingebiel (2000) conclude that open-ended liquidity support to banks during a banking crisis has significantly contributed to the escalation of fiscal costs of crisis resolution around the world.

BOX 5.1 | OPTIONS FOR RESTRUCTURING BANKS

Option 1. Private Sector Merger or Sale

Under a private sector merger or sale, irrecoverable loans are charged off, which may require a write-down of bank capital if loan loss reserves are inadequate, often to the point where the value of liabilities exceeds the value of assets. When the institution is sold or merged, the price a buyer is willing to pay may not result in an adequately capitalized institution. Hence, public money often needs to be used to pay off the excess liabilities or to extend credit to the private sector to finance acquisitions.

When private investors are unwilling to pay a positive price for the customer base and distribution system of the failed bank, the regulator may divide the bank into two institutions: a "good" bank formed by the best assets of the troubled bank, and a "bad" bank composed of the rest of the (troubled) assets. The liability (deposit) size of the good bank is of course determined by the value of assets in good standing. Because of the high quality of the good bank, this institution is easier to sell or be managed by the private sector, limiting the fiscal cost of paying off the remaining insured liabilities of the bad bank.

Option 2. Takeover and Management by the Regulatory Authority

Takeover and management by the regulatory authority is used when the market for impaired institutions is not large enough to absorb the supply of such institutions. This may happen either because the market is underdeveloped or because the crisis has made banking properties unattractive even at very low prices, and regulators have sufficient know-how to operate financial institutions. If delinquent loans are to be charged off and capital written down, this option usually requires a greater injection of public funds than option 1 does, because regulators do not receive an up-front payment for the franchise value of the customers and distribution network.

If regulators have experience in managing failed banks, they may eventually be able to recoup the franchise value through earnings on the investment. The government can postpone some of the cost by permitting seized institutions to operate temporarily at capital levels that would be inadequate for privately owned banks. This policy has risks, however, as governments, like private owners, may take excessive risks with inadequately capitalized institutions. Moreover, the success of this alternative lies in ensuring that banks are returned to private ownership as soon as market conditions permit.

Option 3. Bailout

Bailout must be used when funds that can be committed quickly are scarce, markets are undeveloped or illiquid at the time of the crisis, or regulators do not have the know-how to manage banks. Bailout is the most complicated method of resolution to execute according to the principles of sound restructuring because insolvent institutions must be left in the hands of their present owners, who are given public funds to maintain the viability of the institutions.

their counterparts in developed economies. Consistent with the discussion above, constraints can be divided into three categories: (i) availability of financing resources, (ii) availability of markets to sell banking institutions and their assets, and (iii) regulatory independence. Table 5.1 presents differences in constraints between developed and emerging market countries.

Even if an emerging market economy has followed a conservative fiscal policy before the onset of a banking crisis, policymakers face a daunting task in obtaining adequate funds for a restructuring program. For example, in contrast to developed countries, emerging market economies rarely possess a domestic long-term bond market, although many have access to international bond markets. However, access to long-term bond markets usually dries up when international markets perceive that a crisis is imminent.

This would seem to leave the issuance of short-term debt as a more common funding option in emerging market economies. However, the risk in the short-

TABLE 5.1 DIFFERENCES IN CONSTRAINTS ON BANKING CRISIS RESOLUTION: DEVELOPED VERSUS DEVELOPING COUNTRIES

Constraint	Developed countries	Developing countries
Financing sources	Access to markets continues during the crisis.	Access to international capital markets disappears.
Markets	Domestic capital markets and secondary markets for long-term assets exist.	Lack of adequate legal and judicial infrastructure and repeated financial crises prevent the development of markets for secondary assets.
Regulatory independence	Subject to strict standards, although scandals may occur.	In some cases, lack of independence is so severe that regulators and supervisors cannot do their jobs, even if adequate tools are available.

term market is that the government must cover not only interest payments, but also principal payments if the debt cannot be rolled over. Thus, the slightest hint of deterioration in the government's capacity to service its debt may shut the government out of the market, which in turn increases the pressure for inflationary finance.

Constraints on the size and depth of the market for bank assets are likewise tighter in emerging market economies that lack the legal and market infrastructure necessary for secondary markets to develop. Moreover, regulatory know-how is sometimes in short supply in emerging market economies. However, even in markets with skilled professionals in bank supervision, if bank regulators do not have political independence, they may not be able to sell banking properties through arm's-length transactions. This problem also arises in developed countries, but it is less important than in emerging markets because other constraints are less severe.

Thus, the constraints on bank supervisors in emerging market economies make it much more likely that the bailout option will be taken in these countries than in developed countries. Nonetheless, restructurings, even under the most severe constraints, are more likely to be successful if policymakers attempt to enforce the three general principles outlined above. It is the capacity of the authorities to adapt principles to local conditions, more than the severity of the constraints, which often determines whether a bank restructuring effort will be successful. Box 5.2 provides examples of crisis resolution under ideal conditions, as is the case in developed countries, where funding, markets for bank assets, and regulatory independence are strong, and contrasts these experiences with those of Latin American countries facing substantial constraints.

CRISIS OF CONFIDENCE

As suggested by the extensive literature describing the characteristics of Latin American financial systems, they are fragile, and even relatively mild shocks to the banking sector can quickly result in sharp reductions in the deposit base. An indicator of this fragility is presented in Figure 5.1, which displays the percentage change in the ratio of deposits to gross domestic product (GDP) for selected Latin American and developed countries during the early phases of a systemic banking crisis. The evidence indicates that depositors in Latin America are much more prone to flee the banking system when bank borrowers' capacity to pay is adversely affected than are depositors in other regions. The data suggest that, to a large extent, depositors in Latin America fear that they will suffer a real financial loss following a systemic banking crisis, whereas depositors in developed countries and emerging Asian economies believe that, even in a crisis, the real value of their deposits will be preserved.

Thus, investors in other regions believe that banking crises, while severe, are temporary events and that the long-run viability of the system will soon be restored. This contrasts with the beliefs and behavior of depositors in Latin America. This evidence is consistent with both the severe constraints facing policymakers in Latin America to resolve systemic banking crises and, even more important in a number of countries, with the perceived lack of trust in the authorities' capacity to solve banking problems without the depositors being the bearers of resolution costs (lack of trust in the commitment to the principles for banking crisis resolution). A long history of poorly resolved banking crises in a number of countries has resulted in large bank runs at the onset of problems, further aggravating the severity of the crisis.

BOX 5.2 | CRISIS RESOLUTION UNDER OPTIMAL AND CONSTRAINED CONDITIONS

Savings and Loan Rescue in the United States

The case of the U.S. savings and loan rescue and restructuring plan provides a typical example of how access to funding and the availability of markets permit bank supervisors to apply principles to good effect. However, this example also shows that, unless policy objectives are clearly defined and political will can be mustered to commit funds, relatively lenient constraints do not necessarily lead to good policy.

During the late 1970s and early 1980s, many U.S. savings and loan institutions lost their net worth. The magnitude of the problem exceeded the resources of the insurance fund available to insulate small depositors from the impact of bank failures. Political will to provide additional public funds to cover the loss was absent. Hence, regulators initially attempted to solve the problem by manipulating accounting rules and allowing institutions in trouble to expand their activities. Thus, principles 1 and 3 were violated.[1]

Even with lack of funding, regulators could have controlled the expansion of credit of savings and loan institutions with zero market net worth had they established supervisory guidelines for asset growth relative to an institution's capital base. However, the political power of the real estate industry and regulatory lethargy acted against this. Because principles 2 and 3 were not followed, the owners of these institutions, having nothing to lose, took additional risks in hopes of recovering their investment.[2]

By the late 1980s, when it had become obvious that the program in place magnified the cost of restructuring, the authorities obtained sufficient public funds to deal with the situation in accordance with sound restructuring principles. For example, they were able to seize and sell failed institutions. Bidders assessed the value of banks' assets as well as the franchise value of their distribution network. If bids were too low, regulators paid off depositors from the sale of assets and government funds and closed the institution.

The policy accomplished two objectives consistent with principle 2: it forced stockholders of failed institutions to take losses, and it forced borrowers in default to lose their collateral. (However, it failed to force large liability holders to take losses because they had left during the prolonged period of political indecision.) The policy worked because the authorities were able to raise sufficient funds to close failed institutions without generating inflationary fears, and there was a market for the seized assets.

Constraints in Latin America

Experiences with bank rescue efforts in Latin American countries indicate that in the past regulators have often resorted to inflation, freezing deposits, and imposing interest rate controls to resolve bad debt problems. One or all of these tools have been utilized because countries entered a banking crisis with significant fiscal problems and with no political will to address them, in violation of principle 1. Prominent examples are Argentina in the early 1980s and early 2000s, Mexico and Peru in the mid-1980s, and Ecuador in the late 1990s. Depositors suffered severe losses, and it took drastic adjustment policies (as well as a long time in most crisis countries) for investors to recover confidence in the financial system.

Other examples in Latin America demonstrate that, even under tight constraints, regulators have sometimes been able to fashion a policy that has remained sufficiently close to the principles to be successful. The most noted example of this is Chile in the early and mid–1980s. Although there were limited funds for closing failing banks and markets were not available for selling large impaired institutions, regulators fashioned a recapitalization and loan rescheduling program that minimized incentives to capitalize unpaid interest or expand balance sheets through increased risk-taking.

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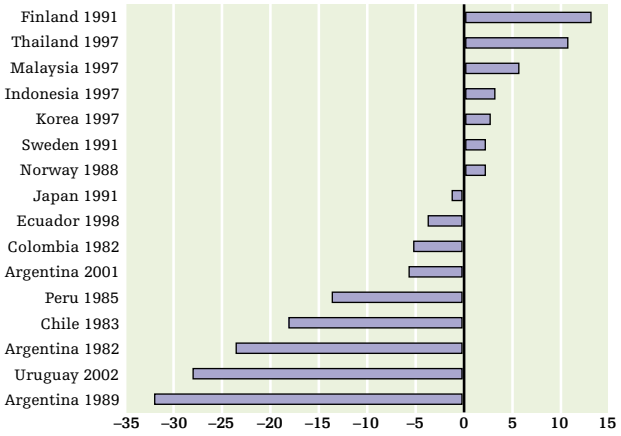
[1] Principle 1 is that a society should exert strong political will to make bank restructuring a priority, and principle 3 is that prompt action should be taken to prevent problem institutions from expanding credit to highly risky borrowers or capitalizing unpaid interest on delinquent loans into new credit.

[2] Principle 2 is to ensure that parties that have benefited the most from the risk-taking activities of the banking business bear a large portion of the cost of restructuring the banking system.

FIGURE 5.1 Percentage Change in Deposits to GDP on the Eve of a Banking Crisis, Selected Countries
(Percentage change)



Source: Rojas-Suárez (2002); IMF (various years).

The sharp drop in confidence in Latin American financial systems that follows initial signals of banking distress is common to both domestic and foreign investors. As a result, periods of banking difficulties are also associated with loss of access to international capital markets, and countries in Latin America have not been able to raise sufficient funds in international capital markets to finance the cost of the crises.[5] This shows the severity of the funding constraint facing policymakers. As indicated in Chapter 3, countries are sometimes forced to run current account surpluses and/or to lose a significant amount of foreign exchange reserves.

Sovereign bonds placed in the international capital markets provide an indicator of investors' confidence. Periods of banking crises are manifested in sharp declines in the price of these bonds. For example, in late 1994 and early 1995, the drop in confidence in the financial systems of Argentina and Mexico coincided with a 30 percent drop in the bond indexes for these two countries. Similar behavior was observed during the eruption of the banking crisis in Ecuador in 1998 and in Argentina in 2001.[6] In contrast to the experience of Latin American countries, the balance of payments position of developed countries like Norway and Sweden was largely unaffected during the Nordic banking crises in the late 1980s and early 1990s. Moreover, long-term government bond prices in Norway and Sweden were largely unaffected by the crises.[7]

Not surprisingly, the severe constraints faced by Latin American policymakers and the long experience of nonadherence to the basic principles of effective crisis resolution in a number of countries in the region have translated into high costs associated with restructuring banking systems after a crisis.[8] As mentioned in Chapter 3, the fiscal cost of banking crises in Latin America has been greater than in other regions; the costs of most crises in developed countries remain at the low end of the spectrum.

The facts presented here are the legacy of a long history of recurrent crises and the inadequacy of the resolution process in many countries in the region. The popular belief that "depositors forget" and that, regardless of the manner in which a crisis is resolved, they will return to domestic banks after a while is not supported by the evidence. On the contrary, depositors can react swiftly to crises and may drastically reduce intermediation levels.

FAILURES AND SUCCESSES

This section analyzes bank restructuring programs in Latin America during the past two decades. In each case, several fundamental questions are answered. First, given the constraints faced by regulators, to what extent did they abide by the three basic principles for successful resolution of banking crises? Second, what mechanisms did the authorities put in place to deal with the constraints? And third, what factors determined the final outcome of the restructuring program?

The experiences chosen here come in pairs of countries facing similar shocks at about the same time. This choice is useful for contrasting how economies under similar pressures may change the outcome of banking crises, depending on the compliance of selected policies with the basic principles of crisis resolution, and on the ability to obtain external funding once these principles are evident in the crisis resolution strategy.[9] These experiences provide evidence that validates the utility of these principles in separating good from bad crisis resolution processes.

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[5] This limits the ability of a central bank to work as a lender of last resort, given that it cannot become a borrower of last resort when international capital markets close (see Chapter 6, Box 6.1).

[6] The sharp drop in deposits (around 20 percent) in Argentina in 2001 signaled the eruption of its banking crisis.

[7] It should also be noted that there was a sharp increase in short-term interest rates in the Nordic countries in 1992 during an attack on the exchange rate. Rates quickly fell after a devaluation.

[8] Data and information on features of banking crisis experiences and their resolution around the world can be found in Caprio and Klingebiel (1996) and del Villar, Backal, and Treviño (1997).

[9] This was the case, for example, in Argentina in 1995 and in Uruguay in 2002.

Argentina and Mexico in the Mid-1990s

Having implemented strong stabilization programs as well as financial and other economic reforms in the early 1990s, many Latin American countries experienced large capital inflows. However, in December 1994, large outflows of capital from Mexico resulted in a balance of payments crisis and a sharp devaluation of the Mexican peso (Sachs, Tornell, and Velasco 1995). The crisis of international investors' confidence in Mexico expanded to several other Latin American countries, most notably Argentina. In order to stem capital flight, Argentina and Mexico increased domestic interest rates, which led to concerns that bank borrowers would not be able to meet their obligations.

By early March 1995, the peso interbank interest rate in Argentina reached a peak of almost 70 percent, and in late March 1995, the repurchase agreement rate on government securities in Mexico reached more than 80 percent. Fears concerning the quality of the banking systems in these two countries were further fed by the realization that both systems contained pockets of institutions that were weak even before the exchange rate crisis. The loss in confidence, combined with tight monetary policy, resulted in banking crises that required major restructuring programs.

Constraints

Despite investors' reduced confidence in the financial systems in Argentina and Mexico in 1995, regulators faced banking problems under much more favorable conditions for successful resolution than was the case in the early 1980s for a number of Latin American countries. Policymakers had improved their know-how in designing effective restructuring programs as a result of absorbing the lessons of success and failure from the 1980s. And progress had been made in bank reporting and supervisory conditions, although they were still below developed country standards.

On the funding side, the fiscal situation in each country was better than in the early 1980s. Moreover, since the fight against inflation had become a priority, each country had committed itself to solving crises with noninflationary policies. Nevertheless, just as in the early 1980s, private funding for restructuring efforts practically vanished with the onset of the crisis, when perceptions about country risk remained fragile, as indicated by the sharp dip in the Emerging Markets Bond Index (EMBI) for both Mexico and Argentina. Moreover, despite the reforms of the early 1990s, markets for long-term funds remained underdeveloped, and the market for insolvent banks remained thin. Although constraints on resolving bank problems had eased compared with the early 1980s, funding constraints were still relatively severe, in particular when compared with conditions in developed countries.

Restructuring Programs

In determining whether a restructuring program follows the three principles, it is necessary to consider the following aspects of the program: whether it controls the growth of impaired institutions, who bears the cost of resolution, and how the program is funded. The assessment here is that while both countries were successful in quickly constraining the growth of banks' balance sheets (principle 3), Argentina's rescue program was superior to Mexico's in distributing the costs of solving the crisis (principle 2) and finding adequate sources of (noninflationary) funds over a short period of time (principle 1). By 1996, a consensus emerged that the Argentine banking crisis was over. By contrast, in Mexico even in 1999, almost five years after the eruption of the crisis, there were discussions about unresolved weakness in the banking sector.

Constraining the expansion of weak banks. As early as 1995, there was ample evidence that principle 1 had been followed in the design and execution of programs in both countries: regulators had not resorted to inflationary finance to resolve the crisis. The authorities in the two countries relied on very different tools to accomplish these tasks. In Argentina, they used stringent controls on monetary base growth through the convertibility law and on bank deposit growth relative to the monetary base through reserve requirements. In Mexico, they enforced a capital to risk asset ratio standard. To evaluate how these alternative methods of controlling the expansion of bank balance sheets restrained the growth of weak banks, it is useful to consider the behavior of two groups of banks in each country between late 1994 and early 1995. Banks that were candidates for restructuring make up one group, and those that were not make up the other.

For Argentina, the banking data for the mid-1990s are aggregated for large provincial banks, which were relatively weak, and large private banks, which were relatively strong. To analyze the Mexican restructuring program, banks are categorized by whether they met supervisory standards for capital and provisions through their own resources or needed a capital infusion as of December 1994. For expositional purposes, provincial

TABLE 5.2 | **GROWTH OF BANK LOAN PORTFOLIOS IN ARGENTINA AND MEXICO, 1995**
(Percent)

Country	Nominal loans	Interest credited	Loans net of interest credited
Argentina			
Strong banks	6.5	12.9	–6.4
Weak banks	–9.3	17.0	–26.3
Mexico			
Strong banks	25.8	47.7	–21.9
Weak banks	21.8	50.6	–28.8

Note: Growth rates and interest credited are annualized based on data through March 1995 for Argentina and through June 1995 for Mexico.

Source: *Superintendencia de Entidades Financieras y Cambiarias* (Argentina), *Estados Contables de las Entidades Financieras*, and *Comisión Bancarias y Valores* (Mexico), *Boletín Estadístico de Banca Multiple*, reproduced from Rojas-Suárez and Weisbrod (1996).

banks in Argentina and banks that required a capital infusion in Mexico are designated weak banks; other banks in both markets are referred to as strong banks.

An important issue is whether the authorities in each country prevented the weak banks from expanding credit. Specifically, were these banks capitalizing interest on nonperforming loans into new loans? To answer this question, it is necessary to determine whether loan portfolios were growing at a slower rate than the rate at which interest was being credited to the portfolio.

Table 5.2 presents annualized growth rates of loan portfolios for each class of bank by country. Based on 1995 data, the rate of growth of loans for both categories of banks in the two countries was less than the rate at which interest was credited, indicating that credit growth was severely constrained.[10] In both countries, the negative growth rate in loan portfolios after accounting for interest earned was greatest for weak banks, at about –29 percent in Mexico and –26 percent in Argentina. Strong banks in Argentina experienced a growth rate of –6 percent, whereas the strong banks in Mexico experienced a growth rate of –22 percent. The evidence indicates that both countries made tremendous strides in controlling the growth of credit to bad borrowers that capitalized interest payments. The success in constraining the growth of bank balance sheets was consistent with neither country resorting to inflation to rescue weak banks.

Program design and funding: Who paid the cost of restructuring? In designing restructuring programs in Mexico and Argentina, the authorities attempted to comply with principle 3. The main difference was in implementation. Policymakers in Argentina quickly moved to close insolvent institutions and minimized public funds used to solve the crisis; authorities in Mexico extended the rescue operation.[11] Dealing with the Mexican banking crisis took a long time and resulted in a large fiscal cost because the regulatory system imposed constraints that prevented the Mexican regulators from tapping adequate sources of funding, and the fiscal authorities delayed in recognizing the extent of their liabilities.

In Argentina, the government decided that a large part of the risk of adjustment would be borne by the private segment of the banking system. It established a safety net fund, supported by large private banks and multilateral institutions and managed by state-owned Banco Nación, which was used to provide liquidity assistance to banks that were losing funds. In addition, the central bank provided liquidity assistance to banks through swap arrangements. However, the scope of these programs was limited because the convertibility law severely restricted the central bank's authority to act as lender of last resort.

Similar to Chile's successful crisis resolution in the 1980s, structural constraints (high foreign indebtedness in Chile, and the convertibility law in Argentina) were

[10] Data are through June 1995 for Mexico and through March 1995 for Argentina. For Argentina, interest credited is for all interest-earning assets, and for Mexico, data are for interest and fees received on loans.

[11] A relevant factor that may lie behind this delay is that the crisis in Mexico brought a major exchange rate depreciation and bankruptcy of nontradable sectors indebted in foreign currency, a feature absent from the crisis in Argentina in 1995.

at the core of designing programs and funding sources. As in the case of Chile, funds for resolving the crisis came from domestic and foreign sources. Another similarity was that international capital markets dried up at the eruption of the crisis. Therefore, multilateral organizations and foreign institutions operating in Argentina were important sources of funds. In contrast to Chile, however, Argentina did not have a well-developed pension fund system as a source of funding to recapitalize banks. Instead, the authorities came up with an ingenious alternative. The government issued a patriotic bond amounting to US$2 billion with a three-year maturity, paying a below-market floating interest rate. This bond was sold to domestic private investors and foreign financial institutions that were established in the country.[12] To channel noninflationary sources of funds to resolve banking problems, the government established a trust fund to recapitalize banks. One of the duties of the fund was to purchase subordinated debt in banks with a maturity of three years, which was to be converted to equity if a bank failed to repay interest and principal. This feature of the program enforced principle 2.

However, early in the crisis, authorities in Argentina recognized that they could not raise sufficient funds for a prolonged bailout program. More important, they understood that the crisis provided an opportunity to deepen the banking system reform that they had initiated in 1991 after the hyperinflation period and that a sustainable solution would have to involve closing many troubled banks. Therefore, a significant portion of the resources from the fund established to inject capital into banks was used to finance mergers and acquisitions, which, by taking control of banks away from bad managers, reduced the expansion of bad credit. Indeed, the strong commitment of the authorities to these reforms (principle 2) led to the success of the restructuring operations (Carrizosa, Leipziger, and Shah 1996; Burdisso, D'Amato, and Molinari 1998). In a nutshell, Argentina dealt with the lack of funding, a constraint typical of emerging markets, by internationalizing the banking system.

The establishment of a private deposit insurance system funded by banks was an additional element that reinforced credibility in the commitment of the authorities to solve the crisis with minimal use of public funds. This encouraged depositors to keep their funds in troubled institutions while they were being restructured. Since the insurance fund was independent of the government, its commitment to insure deposits could not be perceived as a potential source of inflationary finance.

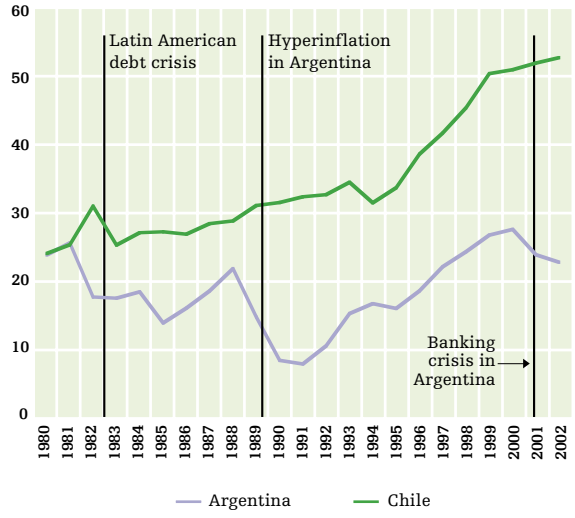
The success of the Argentine restructuring program can be summarized by two indicators. First, as shown in Figure 5.2, the ratio of deposits to GDP was barely affected by the crisis. This contrasted significantly with two previous episodes of bank disintermediation in Argentina: the crisis of 1982 and the crisis of 1989. Second, the authorities were able to attract significant amounts of foreign capital to the banking system. By 1996, Argentina displayed one of the highest ratios of foreign participation in the banking system in the region, reaching about 35 percent. This process continued during the late 1990s, and by 2000 the ratio reached about 45 percent (see Figure 5.3).

Mexico's program also started with the intention of complying with principles 2 and 3. The recapitalization program was sophisticated and designed to ensure that private parties that benefited from excessive risk-taking activities would bear the largest portion of the restructuring costs. A major problem, however, was that in its implementation it soon became apparent that there were no clear benchmarks for crisis resolution, and that the authorities had not mustered the necessary political will to minimize the cost of the crisis. As a result, a number of support programs for debtors raised the cost of dealing with the crisis.

The government's complex banking system rescue package consisted of four parts (Deutsche Bank 1998). First, there was intervention in insolvent banks, which were liquidated, merged, or sold. The government absorbed their loan portfolios. Second, the government funded temporary capitalization programs, which involved the provision of loans against subordinated debt. Banks that were not capitalized when the loans came due would become government property. This rule was intended to comply directly with principle 2. Since all the banks repaid their loans, this part of the program was considered successful. Third, loan portfolios were exchanged for government-guaranteed 10-year zero coupons at face value, minus reserve provisions. Commercial banks retained administration of their loan portfolios, but at the end of the 10-year period, proceeds from loan recovery were to be deducted from the repayment of the principal. Fourth, the government implemented a series of support programs for debtors, which involved reduction and/or interest rate cuts. The government used cash payments or securities to subsidize part of the cost of debt reduction and/or interest rate cuts.

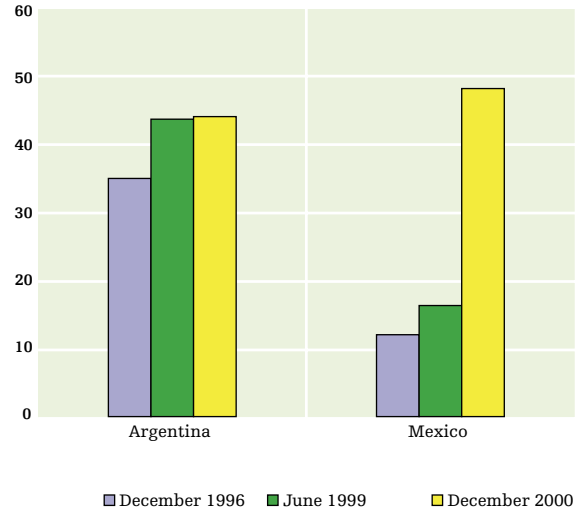
[12] The government was able to raise funds at below-market interest rates by appealing to private investors' stake in the success of economic reforms.

FIGURE 5.2 Deposits to GDP, Argentina and Chile, 1980-2002
(Percent)



Source: IMF (March 2004); central bank publications.

FIGURE 5.3 Foreign Effective Control of Banking Systems in Argentina and Mexico
(*Percentage of total loans)*



Source: Salomon Smith Barney; foreign financial institutions in Latin America.

Despite the prompt response to the crisis and a program with many features pointing in the right direction, a number of problems arose during the implementation of the program. First, the size of the nonperforming loans was severely underestimated. This was mainly due to debtors' successful lobbying of the congress to negotiate postponement or elimination of loan repayments. The end result was the development of a culture of "no debt repayment" that aggravated the extent of the banking crisis, in violation of principle 2. Indeed, by the end of 1998, the government acquired through its crisis fund (FOBAPROA) liabilities of 550 billion pesos in exchange for almost half of all bank gross assets.

Second, more than 50 percent of the bonds placed in banks in exchange for bad loans were nontradable, 10-year zero coupon bonds. As a result, banks had significant cash flow problems, and their profitability was severely affected. The reason for this was the refusal of the government for a long time to recognize that FOBAPROA debt was indeed public debt that needed to be part of the fiscal budget and become an interest-bearing asset. The lack of government commitment to allocate the needed real fiscal resources to resolve the crisis was in strong contradiction with principle 1.

Third, in contrast to Argentina, Mexico's legal constraints prevented a much needed injection of foreign capital into the banking system. In particular, rules about ownership control and the lack of bankruptcy laws with sufficient protection for creditors were at the core of the problem. Thus, as shown in Figure 5.3, by mid-1999, the effective foreign control of Mexico's banking system remained among the lowest in the region, reaching only about 15 percent. By delaying the removal of funding constraints, these developments also violated principles 1 and 3.

Indeed, the impasse of the Mexican restructuring program was resolved only when the government adopted the recommendations of principles 1 and 3, undertaking two key measures at the end of 1999 and early 2000. First, FOBAPROA debt was recognized as interest-bearing public debt, and the flow of interest payments was incorporated into the budget. Second, an effective bankruptcy law was approved. As a result of these developments, there was a significant increase in the participation of foreign capital in the banking system, which by 2000 reached almost 50 percent (Figure 5.3). The Mexican crisis illustrates how political will makes a difference. Although mistakes were eventually corrected, they unnecessarily elevated the cost of the rescue operation. The estimated fiscal cost of the crisis was more than 20 percent of GDP.

Argentina and Uruguay in the Early 2000s

The banking crisis resolution processes in Argentina and Uruguay in the early 2000s were contrasting events in terms of adherence to the basic principles. Since the eruption of the banking crisis in Argentina at the end of 2001, authorities have consistently departed from

the principles of effective crisis resolution. As a result, the banking system remains largely insolvent when asset valuation is measured at market prices. By contrast, although still facing important difficulties, regulators in Uruguay better adhered to the principles, and by early 2004 the restructuring program was making important progress in the right direction.

Origins and Constraints

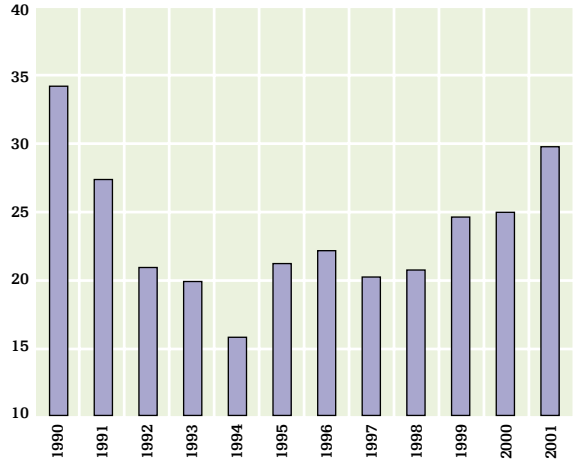
The Argentine banking crisis of 2001–02 materialized because of a combination of underlying fragilities in the banking system in the late 1990s, coupled with policies in 2001–02 that destroyed the franchise value of banks by rendering the payments system ineffective. Two types of fragilities emerged during the late 1990s. First, the soundness of the banking system depended on maintaining a fixed exchange rate because of the large amounts of bank dollar lending to borrowers with peso-denominated sources of income.

Second, there was increased bank exposure to government risk. Figure 5.4 shows the evolution of the share of government paper in banks' balance sheets since 1990. This share declined significantly until 1994; increased temporarily as a result of the banking crisis resolution in 1995–96; after a partial correction in 1997–98, resumed an upward path; and by the end of 2001 reached a level close to that in 1990. Among all types of banks, public banks had the largest share of government paper in their assets. Although there was a compulsory sale of government bonds to banks, this only happened in late 2001. Thus, partly as a consequence of attempting to stay profitable in a recessionary period, banks held increasing amounts of government paper and underestimated the risks of holding government liabilities. This risk increased during the late 1990s and into 2001 as the fiscal balance deteriorated and public sector indebtedness increased.

The combination of a growing stock of public debt, increasing overall fiscal deficits, and no sign of economic recovery during 2001 fueled perceptions of government default and abandonment of convertibility. As these perceptions threatened to expose the risks in banks' balance sheets, a significant withdrawal of deposits took place that year. By the end of 2001, the banking system had lost about 20 percent of deposits. As a response to the deposit loss, in December 2001, the government imposed limits on withdrawals of deposits. Moreover, depositors' fears were validated in January 2002 when the government declared default and depreciated the peso by 29 percent.

Thus, in early 2002, Argentina found itself with a currency crisis, a debt crisis, and a banking crisis. On top of the economic and financial difficulties, the country was in the middle of a severe political crisis that had manifested itself in, among other events, the resignation of the president in December 2001. This complex situation meant that any process of banking crisis resolution would face unusually severe constraints. The funding constraint was particularly severe because the default on external obligations implied a total exclusion of Argentina from international capital markets. The recession deepened in 2002 and reached a decline in the rate of growth of economic activity of more than 10 percent. In addition, the funding constraint meant the government was unable to collect sufficient revenues to allocate to the resolution of the crisis.

FIGURE 5.4 Government Liabilities Held by Banks, Argentina, 1990-2001
(*Percentage of total assets)*



Source: Rojas-Suárez (2002); IMF (various years).

The initial steps taken by the authorities after the default further tightened the constraints for banking crisis resolution, especially with regard to the treatment of foreign banks, which in the past (in 1995) had played an important role in bringing the system back to solvency. Moreover, regulatory independence—a necessity for credible restructuring programs—had been significantly weakened during 2001 with the limitations imposed on the autonomy of the central bank and the dismissal of its president.

The effects of the crisis in Argentina had adverse consequences on Uruguay's banking system, mainly because about 40 percent of bank deposits in Uruguayan banks were held by Argentines. Following the imposition of the deposit freeze in Argentina, Argentine depositors began to withdraw their funds in Uruguay. This led to about a 12 percent decrease in total deposits during the first two months of 2002.

Although the Uruguayan banking system did not have significant exposure to government risk (government debt as a ratio of total assets was less than 3 percent in 2001), it suffered from the same problem of currency mismatches as in the Argentine case. About 80 percent of total loans were dollar denominated and half of the dollar loans were extended to borrowers with Uruguayan peso-denominated income. An additional source of fragility was political interference in the lending practices of the two large state-owned public banks, which also had the largest credit exposure in dollar loans to nontradable sectors.

The initial withdrawal of deposits resulting from contagion in Argentina was followed by additional withdrawals by Uruguayan residents who feared that the banking system was experiencing solvency rather than liquidity problems. These fears were exacerbated by Uruguay's downgrade from investment-grade status and by the depreciation of the exchange rate that followed the capital outflows associated with the withdrawals by Argentine depositors. By the end of July 2002, total withdrawal of deposits had reached 42 percent.

Did the Uruguayan authorities face constraints as severe as those in Argentina for implementing a banking crisis resolution program? The major differences were not in terms of traditional macroeconomic indicators. For example, by the end of 2001, both countries were in a sharp recession and had severe fiscal imbalances. By the end of 2002, the consolidated fiscal deficit as a percentage of GDP was 5.9 in Argentina and 4.1 in Uruguay; the ratio of public sector debt to GDP was about 60 percent in Argentina and 54 percent in Uruguay. The data indicate that neither country was in a sound position to allocate fiscal funds to the resolution of the banking crisis.

The crucial difference between Argentina and Uruguay regarding access to sources of funds for crisis resolution was in the willingness of the multilateral organizations to provide financial support to Uruguay. There were two major reasons for this outcome. First, the crisis in Uruguay was perceived as contagion from Argentina. Second, and perhaps more important, Uruguay did not default on its external debt obligations with the private sector but instead maintained a market-friendly approach to creditors that eventually culminated in a successful debt exchange in May 2003. Another important difference in terms of funding constraints was that the Uruguayan authorities were able to persuade the headquarters of foreign banks to recapitalize their branches and subsidiaries, while policy decisions by the Argentine authorities penalized foreign banks.

Initial Responses

The payments system is at the core of the business of banks and defines their franchise value. Policy actions in Argentina during the pre-devaluation/default period significantly weakened the effective functioning of the payments system by freezing deposits and imposing tight controls on cash withdrawals. Banks' soundness was also hampered by an exchange of government bonds held by banks for illiquid government bonds in November 2001 (see LASFRC 2002). As a full-blown banking crisis became apparent following the devaluation/default, policy actions further accentuated the problem and violated all principles for effective crisis resolution (Gutiérrez and Montes-Negret 2004; De la Torre and Schmukler 2002).

First, the government of Argentina imposed an asymmetric exchange of dollar bank assets and liabilities into pesos. Dollar-denominated loans were converted into pesos at the pre-devaluation exchange rate of 1 to 1, while dollar-denominated deposits were converted into pesos at the rate of 1.4 pesos per dollar, a much lower rate than the market exchange rate. This policy clearly benefited borrowers and placed the burden on depositors and banks (with severe consequences for banks' capital), and drastically violated principle 2. Moreover, since the foreign obligations that banks were facing remained in foreign currency, while the loans banks had given were converted to pesos, a large foreign currency exposure was introduced into banks' balance sheets.

Second, a tighter freeze was imposed on time deposits because the authorities focused on containing deposit losses rather than restoring the solvency of the banking system. The use of time deposits in transactions was limited and their maturity was forcefully restructured. These actions contradicted principle 2 by severely penalizing depositors. In addition, banks lost their franchise value as the payments system became impaired.

Penalizing depositors through freezing accounts is not new; Mexico used a similar strategy with dollar-denominated deposits (known as *petro-dollars*) during the debt crisis of 1982. The financial disintermediation that followed contributed to a series of consecutive crises that culminated in a major disruption in 1995. By contrast, also in the early 1980s, the Chilean program attempted to recover depositors' confidence in the banking system by preserving the real value of deposits. As Figure 5.2 shows, this policy, coupled with Chile's prudent fiscal management and low fiscal dominance of monetary policy, may have been behind the successful

increase in banking intermediation and banking crisis avoidance throughout the late 1990s, in a context of severe external pressures.

Third, in February 2002, the government of Argentina introduced exchange and capital controls in an attempt to contain deposit losses and limit the effect of the outflows on the exchange rate. This further complicated banks' operations because payments abroad needed the approval of the central bank.

The combination of all the measures described above implied a breach of existing contracts and significant legal uncertainty, which prompted the headquarters of foreign banks to deny financial support to their branches and subsidiaries. By mid-2002, the payments system was completely inoperative and banks' loan portfolios continued to deteriorate because no restructuring program was in place.[13] Adhering to principle 1 was not a priority for the authorities.

In contrast to developments in Argentina, and with a clear example of the costs of inappropriate crisis resolution at hand, the Uruguayan authorities made it a priority to preserve the payments system and contain depositors' loss of confidence. However, an important mistake of the initial policy response was to treat the crisis as a liquidity problem rather than a systemic solvency problem. Thus, the main efforts focused on the provision of liquidity to the banks through a variety of instruments at the disposal of the central bank in its role as a lender of last resort.[14] During the three waves of bank runs from February to June 2002, the central bank provided significant liquidity assistance, especially to those banks identified as critical for the functioning of the payments system. This group of banks included the two public banks, four private banks, and some cooperatives. Foreign banks self-financed their deposit outflows with liquid assets held abroad.

However, despite a widening of the crawling exchange rate band, the provision of liquidity translated into large losses in foreign exchange reserves, a weakened exchange rate, and an increase in the inflation rate. As international reserves experienced a sharp fall, market fears of a potential outcome similar to that in Argentina intensified. Moreover, the role of the central bank as an effective lender of last resort lost credibility as the ratio of international reserves to deposits plummeted. Throughout this period, the Uruguayan authorities made significant efforts in differentiating their policies from those in Argentina. Thus, Uruguay did not impose conversion of dollar deposits into pesos, freeze deposits, or default on external debt.

Still thinking that they were dealing with a liquidity crisis, the authorities created the Fund for Fortifying the System of Banks (FFSF) in June 2002. Initially funded with International Monetary Fund (IMF) resources, this fund aimed at complementing the liquidity provision of the central bank. Because some banks were experiencing solvency problems, the fund was also designed to provide capitalization support. However, soon after its creation, it became apparent that the size of the FFSF was not sufficient to deal with the problems at hand. With international reserves below US$1billion, it became apparent that the banking system was experiencing a systemic solvency crisis. In July 2002, the central bank had to intervene in several banks and eventually declared a bank holiday to begin a comprehensive restructuring program.

A Restructuring Program for Uruguay, but Not for Argentina

The initial measures taken by the authorities in Argentina aggravated rather than improved the solvency of banks. As discussed in Gutiérrez and Montes-Negret (2004), the run on banks stabilized in mid-2002 because of a number of measures, including capital controls, the gradual lifting of the deposit freeze, and voluntary swaps of time deposits for government bonds. However, the authorities did not put in place a serious and comprehensive program for bank restructuring to address the solvency issues the banks still faced. In violation of principle 2, Argentina did not discriminate in the treatment of banks according to quality. Indeed, the central bank's early provision of liquidity and rediscounts supported public banks, which, as shown in Table 5.3, were the weakest group of banks in the system at the onset of the crisis. Consistent with these incentives, there was a significant shift, in terms of market share, of deposits from private and foreign banks to public banks, indicating that depositors were not exercising market discipline in their choice of financial institutions. Instead, depositors based their actions on recent experience and the belief that the government would favor public banks. The lack of a restructuring program therefore led to an adverse selection problem and intensified the moral hazard problem typical of banking systems where adequate regulatory and supervisory practices are not in place.

[13] In early 2002, the congress temporarily suspended legal actions by creditors to collect on their debts. This further undermined the value of contracts and creditors' rights.

[14] These instruments included advances in pesos, an automatic overdraft facility, rediscount of central bank certificates of deposit, and sales of government and central bank paper.

TABLE 5.3 **ARGENTINA'S BANKING SOUNDNESS INDICATORS BY OWNERSHIP OF BANKS, 1997-2001**
(Percent)

Indicator	December 1997	December 1998	December 1999	December 2000	March 2001	June 2001	September 2001	December 2001
Public banks								
Past-due loans/total credits	15.97	14.03	16.76	18.08	20.37	13.30	15.70	16.86
Loan loss reserves/ past-due loans	52.00	68.89	59.31	58.36	59.50	61.46	70.97	68.57
Liquid assets/deposits	15.40	13.26	12.61	11.15	10.14	13.43	14.08	7.49
Net interest margin	3.03	3.38	3.29	3.71	0.67	2.04	2.84	3.36
Equity/assets	11.84	9.64	8.77	9.51	9.58	9.42	10.52	9.50
Return on assets	0.53	−0.03	0.10	0.19	−0.57	0.02	0.01	−0.48
Loans in dollars/total loans	63.95	70.42	71.54	73.37	74.11	68.95	70.25	77.50
Private domestic banks								
Past-due loans/total credits	6.97	6.29	6.52	8.17	8.82	8.28	9.86	9.68
Loan loss reserves/ past-due loans	75.52	89.14	83.41	75.11	71.42	77.78	75.21	76.25
Liquid assets/deposits	18.60	17.33	12.89	9.54	11.39	18.51	22.63	17.54
Net interest margin	4.03	5.06	4.57	4.21	4.42	4.75	5.33	3.50
Equity/assets	18.23	17.44	16.73	13.26	13.80	15.13	16.63	18.53
Return on assets	1.30	1.39	1.31	-0.96	1.27	1.41	1.41	0.55
Loans in dollars/total loans	61.53	62.60	63.05	67.61	66.95	67.05	63.77	75.65
Private foreign banks								
Past-due loans/total credits	3.83	4.29	4.41	5.59	5.66	5.80	6.19	5.89
Loan loss reserves/ past-due loans	64.67	85.40	89.94	85.51	84.91	85.88	83.79	100.56
Liquid assets/deposits	18.73	10.96	10.75	9.09	10.86	19.80	17.44	22.50
Net interest margin	4.01	3.97	4.17	4.26	4.47	4.55	5.25	5.66
Equity/assets	13.19	8.61	8.20	8.33	8.24	8.53	10.20	9.91
Return on assets	1.21	0.64	0.61	0.87	0.92	0.87	0.86	0.01
Loans in dollars/total loans	69.42	68.85	68.86	55.60	67.13	68.50	48.29	70.65

Source: Salomon Smith Barney, Central Bank of Argentina.

In contrast to the experience in Argentina, the authorities in Uruguay were able to secure "credible funds" to finance the implementation of a comprehensive restructuring program. The success of the strategy to stabilize deposits was rooted in the ability of the Uruguayan authorities to quickly negotiate an IMF program. The program aimed to do the following: (i) provide the Fund for the Stability of the Banking System with sufficient resources to fully back U.S. dollar sight and saving deposits of the major domestic banks; (ii) reprogram the maturities of U.S. dollar time deposits in public banks; and (iii) restructure intervened domestic banks. Another key difference was the fact that the "rules of the game" for foreign banks remained intact. That is, the authorities did not impose conversion of deposits into pesos or a deposit freeze but instead effectively allowed foreign banks to fulfill the role of lender of last resort that they claimed to have.[15]

The shift in gears in the policy actions of the Uruguayan authorities from a program designed to use central bank liquidity as a major source of funding to a program aimed at restructuring the banking sector with noninflationary funds was in compliance with principle 1 for successful crisis resolution. In addition, the actions taken to liquidate insolvent banks without unduly penalizing depositors were in adherence with principle 2. In early 2003, a new bank was created with the good assets of three liquidated banks. The new bank was de-

[15] The relatively smaller size of the claims for the case of Uruguay may have had a bearing on the nature of banks' responses compared with the case of Argentina.

signed as a fully commercial bank, temporarily owned by the government, but under private management. If, as planned, the bank were successfully privatized in the near future, principle 2 would be reinforced.

The extent to which principle 3 is fully achieved will depend on the pending issues regarding the restructuring of the public banks and the disposal of the remaining assets from the liquidation of insolvent banks. Improving the soundness of public banks in Uruguay is essential for the restoration of the banking system to become a permanent achievement.

In the meantime, markets have rewarded Uruguay's compliance with the principles for effective banking crisis resolution. After skyrocketing in mid-2002, spreads on sovereign bonds decreased significantly and began to approach pre-crisis levels. Moreover, in October 2003, Uruguay regained access to international capital markets and was able to place a peso-denominated, inflation-indexed bond. These developments sharply contrast with those in Argentina, where sovereign spreads remain at extremely high levels.

LESSONS FROM EXPERIENCE

The experiences analyzed in this chapter indicate that the process of banking crisis resolution is crucial in battling financial disintermediation and assessing the capacity of a banking system to avoid future crises. The reason is straightforward: A successful bank restructuring program provides the right incentives for avoiding excessive risk-taking by banks. Because an adequate resolution process improves public confidence in the capacity of the authorities to tackle future problems, the banking system becomes more resilient to future adverse shocks and contagion. Still, the establishment of resilient institutions represents a challenge for Latin America. Although, as in the case of Argentina, a country may have successfully battled a crisis in the past by adhering to crisis resolution principles, ensuring financial intermediation, and providing the right incentives, it is clear that strong political pressures can change all that.

In reviewing the experience of several banking crisis episodes in Latin America over the past two decades, six major lessons emerge. First, good banking crisis management must begin with three basic principles: muster the political will to channel noninflationary funds to solve the crisis, ensure that parties responsible for the crisis bear most of the costs of restructuring, and take prompt action to prevent problem banks from expanding credit to delinquent borrowers. An examination of experiences of restructuring banks in Latin America indicates that the key for a successful program is strong commitment to adherence to these three principles.

Second, experience shows that attaining sufficient political will to give priority to prompt and effective resolution of the banking crisis is the most difficult challenge to overcome. As the experiences of Mexico in 1995 and Argentina in 2001–02 demonstrate, political pressures tend to impede the implementation of a successful restructuring program. The delays and failures of implementation simply raise the cost of crisis resolution.

Third, while the three basic principles for banking crisis resolution are the same for developed and developing countries, constraints differ significantly and are much more severe in developing than in developed countries. These constraints include availability of funding, availability of markets to dispose of nonperforming assets and institutions, and lack of regulatory independence to put in place a restructuring program. An important constraint present in all crisis resolution episodes in Latin America is the loss of access to international capital markets.

Fourth, although Latin American policymakers face similar obstacles in resolving banking crises, there is no unique formula for success. For example, extension of loan maturities to give borrowers time to return to solvency is a common element of banking crisis management in the region. Because banks in the region face volatile short-term funds markets, regulators must find ways of removing the risks created by maturity extension policies from bank balance sheets.

Fifth, a crisis should be used as an opportunity to strengthen supervision and improve the quality of bank management. This was the strategy followed by Argentina in 1995. In this regard, it is extremely disappointing to see the backslide in depositors' confidence due to the current process of resolving financial difficulties.

Sixth, foreign banks can play an important role during a systemic banking crisis in two ways. One, to the extent that foreign banks are perceived as relatively stronger than local banks, bank runs might be contained to a shift of deposits from local to foreign banks, limiting capital flight. And two, experience demonstrates that if the policies of the local authorities aim at preserving the payments system and achieving a rapid resolution of the crisis without changing the rules of the game (such as the forced currency conversion of deposits and loans), headquarters of foreign banks could provide lender of last resort facilities to their subsidiaries and even capitalization funds, limiting the cost of the crisis. This was the case in Uruguay in the early 2000s.

These conclusions lead to the following policy

question: What can the authorities do to ease constraints in order to reduce the cost of resolving banking crises? The only certain means of loosening constraints in Latin America is to build credibility in policies and institutions, which takes time. Even policies that are designed to reduce constraints directly, such as forced savings schemes, can work only when authorities pursue policies to build credibility. For example, mandatory pension funds can be useful as a means of relaxing funding constraints. However, these programs will work only if investors have confidence in the economy. If policies are volatile and institutions are weak, some investors will react to forced savings plans by removing funds from voluntary savings vehicles, such as bank deposits.

How can authorities know that they have been successful in relaxing constraints for resolving banking difficulties? This will happen when funds markets do not dry up in a crisis—a feature present today primarily in developed countries.