

Designing Deposit Insurance

THE banking crises that ravaged the region during the past decade led to a reevaluation of the regulatory and institutional framework. To what extent could the **bank runs** in Argentina, Ecuador, and Uruguay have been avoided had there been a stronger **financial safety net**? Is it possible to design institutions that will foster a sound safety net and lower systemic risks? The previous chapter discussed the role of prudential regulation and banking supervision in attaining such goals. This chapter discusses the role of an institution that complements regulation and supervision in the search for a solid and stable banking system: namely, **deposit insurance**. Most modern financial systems have a deposit insurance scheme whose goal is to avoid speculative runs and protect depositors (especially small and medium-size account holders). This chapter analyzes the objectives, range, and limitations as well as the design characteristics of a sound deposit insurance scheme and describes the role of deposit insurance in the region.

FINANCIAL SAFETY NETS

Deposit insurance should not be viewed as an isolated instrument, but rather as a part of a coherent and consistent set of instruments for banking safety that includes an adequate prudential regulatory framework, banking regulatory and supervisory institutions to enforce the regulations, a **lender of last resort** to provide liquidity when needed, effective and efficient resolution institutions, and a suitable environment for depositors to bring the behavior of banks into line with their own interests through market discipline. (Chapter 8 discusses private oversight and market discipline.)

The main objectives of banking safety nets are the prevention and resolution of systemic crises and the protection of depositors. When using financial safety net instruments, it is important to distinguish between the treatment of liquidity and solvency problems. Although in many instances it is not easy in practice to distinguish between the two, an explanation of the conceptual difference regarding the primary use of each financial

safety net instrument is useful. From a preventive (ex ante) viewpoint, all financial safety net instruments play a relevant and complementary role in decreasing the risks of individual and systemic financial crises, both for liquidity and solvency. Nevertheless, as regards problem resolution (ex post treatment), it is useful to make a conceptual distinction. Deposit insurance thus plays a primary role in the care of depositors in the event that individual banking entities have solvency problems. By contrast, the role of lender of last resort is the principal role played in cases of liquidity problems.

International experience, in particular that of Latin America and the Caribbean, shows that deposit insurance is useful at times of relative normality in the banking system. In periods of systemic crises, however, its capacity is considerably reduced for a variety of reasons. In such cases, as discussed in Chapter 3, the crisis becomes primarily a fiscal problem.

OBJECTIVES AND DESIGN OF DEPOSIT INSURANCE

Deposit insurance is an institution designed to take care of depositors in the event of solvency problems. It reimburses depositors for part or all of their deposits in case a bank fails. A main objective of deposit insurance is to contribute to the stability of the banking system by preventing bank runs in the wake of announcements or rumors that suggest possible problems at one or more banks and raise doubts about the solvency of the system. Deposit insurance also protects small depositors when banks go bankrupt.¹ And deposit insurance contributes to facilitating the restructuring or closing of a bank in an orderly manner by establishing explicit procedures for accessing the resources of the insurance fund.

Despite the clearly defined objectives of deposit insurance, achieving them is no easy task because the very existence of deposit insurance encourages unde-

¹ Usually small depositors have little ability to interpret the available information and tend to keep only limited amounts on deposit.

sirable behavior on the part of depositors and banks that can lead to weakening the banking system. This behavior is known as the problem of moral hazard. It is also possible that any incentive that depositors may have to monitor the operations of their bank is lost or, in other words, market discipline is relaxed, that is, depositors may not exercise their power to affect the behavior of bankers (see Chapter 8). Deposit insurance, by guaranteeing the reimbursement of funds in the event a bank fails to meet its obligations, lessens the concern on the part of depositors to learn about the financial situation of their banks and to demand yields in accordance with the potential risks assumed by those banks.

Moral hazard is also manifested in the behavior of the banks. If banks perceive that deposit insurance funds are available to bail out banks with problems, then banks might have an incentive to engage in high-risk activities.

It is precisely the presence of moral hazard problems that makes it so crucial to properly design deposit insurance. International experience analyzed in detail in Cull, Senbet, and Sorge (2001) and Demirgüç-Kunt and Detragiache (2002) reveals that although properly designed deposit insurance may contribute to the stability of a banking system, a deficient design scheme that allows moral hazard problems to materialize can lead to banking crises. The great challenge therefore is how to properly design such a scheme. International experience has highlighted a number of factors to be considered.²

To reduce moral hazard, it is first and foremost recommended that deposit insurance be explicit and that coverage be low and restricted to certain types of deposits. The existence of implicit deposit insurance (that is, situations in which authorities cover depositors in the event of problems and fulfill the functions of deposit insurance even when no formal insurance exists) has contributed to the emergence of banking crises (Demirgüç-Kunt and Sobaci 2001). If regulations are not clear, both bankers and depositors tend to assume that authorities will bail out the banks and that deposits are therefore protected. This leads to excessive risk-taking by bankers and inefficient monitoring by depositors. These problems are increased when, as in the past, authorities in effect repeatedly bail out banks and when there is the perception that certain banks will always be protected because of their large size (known as the “too big to fail” doctrine). Thus there is a need for clear recommendations regarding the need for deposit insurance to have transparent rules and be free of ambiguity.

The main recommendation for deposit insurance coverage is that it be limited and inexpensive. The greater the coverage, the less will be the desire on the part of depositors to monitor their bank and exercise discipline to prevent the bank from taking excessive risks contrary to the interests of the depositors. International recommendations suggest that deposit insurance must be limited to deposits of individuals in the country, excluding all other types of deposits, especially all offshore and interbank accounts. In addition, setting maximum amounts of coverage per depositor, not per separate deposit account, is recommended. This ensures that a depositor has no incentive to divide deposits into multiple accounts in order to gain greater coverage in the event of problems. Another reason of no less importance is to avoid regressive transfers through distribution of income, as has happened in the past (see de Ferranti and others 2004).

The principle to be observed regarding the maximum amount of insurance per depositor is to establish coverage in such a way that it covers a high proportion of the number of deposit accounts while covering a low proportion of the total value of the deposits. The coverage may also be differentiated according to the type of deposits (for example, coverage of foreign currency deposits could be excluded) as well as according to the type of institutions (for example, only banks).

An additional element for mitigating moral hazard is co-insurance. Strictly speaking, co-insurance is understood as a situation in which the depositors must share in the losses in the event coverage of the insured deposits is needed (for example, when the system covers only a percentage of the amounts on deposit). The existence of **co-insurance**, although it offers a lesser benefit, may nonetheless serve as an incentive for the exercise of market discipline.

Although the problem of moral hazard surfaces immediately when analyzing deposit insurance, the design of a sound deposit insurance scheme must also deal with the management of problems of **adverse selection**. The problem of **adverse selection** arises when there are deposit insurance characteristics that cause only weak banks to participate in the scheme. Should this situation arise, it would weaken the banking system precisely because it would end up protecting only the riskiest institutions.

These problems can materialize when enrollment in deposit insurance is voluntary and when the premium

² See García (1999) for a more detailed discussion on the lessons to be learned from international experience and CAN (2001) for an in-depth discussion on Andean countries.

charged to banks for participating in insurance is not adequate for the risk involved. To guard against only weak banks joining the system, **membership** must be **compulsory**. If membership is voluntary and only weak banks join, the fragility of the banking system is increased as a whole because depositors may be more attracted to deposit their money in insured banks, which will tend to be the weaker banks.

Adjusting the premium to the risk contributes to controlling the potential subsidizing of weak banks by strong banks, which is what could happen in a system in which all pay the same premium. Collection of a higher premium for risk may act as a disciplinary mechanism that in turn may limit excessive risk-taking on the part of banks. There are various methods for evaluating risk and setting premiums. In some countries, risk rating agencies establish the categories; in others, the rules of banking supervision set the asset risk classifications.

The design of a sound deposit insurance scheme also requires dealing with what is known as **agency risk**, that is, the risk that the entity managing the deposit insurance will not represent the interests of the depositors but rather those of the banks. To avoid this risk, the deposit insurance entity must be an independent institution and must not have in its senior management representatives from the banking system. However, it should be stressed that independence must not go against the need to cooperate with all other institutions in the banking safety net.

Finally, it is crucial that deposit insurance be credible. Even if all the recommendations are implemented and it becomes possible to reduce moral hazard, adverse selection, and agency risks, deposit insurance may still not be credible if it does not demonstrate that it can act quickly and efficiently when a bank fails. Deposit insurance must have clear and precise procedures to reimburse the deposits covered in the event of a bank intervention.

To be credible, deposit insurance requires fundamental financial stability. Deposit insurance must have an adequate fund and must demonstrate that it has access to additional resources in case that fund becomes insufficient. With respect to the fund, a resources goal must be established to guarantee that payments will be made during normal times. The goal amount must be calculated on the basis of an estimate of the value of a banking problem in normal times, and based on that estimate, a fund may be set up through the collection of premiums from banks participating in the insurance scheme. Regarding access to resources, it is possible that nonsystemic situations may arise in which the de-

mand for payments is greater than the amount the insurance fund has available. To exit such a situation, the insurance system must have access to financing sources, for example, an emergency line of credit with the central bank or the treasury that will enable it to access these resources through loans from temporary funds. If such a mechanism is in place, it is equally important that there be clearly defined rules that will avoid temporary access to public funds resulting in a loss of independence or causing deposit insurance to become managed for political purposes.

As regards the ownership structure of deposit insurance, a distinction may be made among public, private, and mixed systems. Generally speaking, greater public participation could be associated with greater availability of resources, on top of those already accumulated in the fund in order to take care of insured deposits.

DEPOSIT INSURANCE IN LATIN AMERICA

The balance between the benefits and costs of deposit insurance schemes depends on the design characteristics of those schemes and the particular situation of each country. The most relevant design characteristics for the region as regards the risk coverage and recommendations suggested in the previous section are concentrated in the following areas: system formalization, membership, coverage, premiums, co-insurance, institutionality and administration, and funding (Financial Stability Forum 2001; Demaestri 2001). These characteristics are summarized below, focusing on the countries of the region and comparing them with experience in the rest of the world.³

System Formalization

For the most part, countries in Latin America and the Caribbean have explicit deposit insurance schemes. Table 7.1 shows that of a total of 26 countries in the region, 19 have explicit deposit insurance.⁴ Around the world, approximately half the countries have explicit systems.

³ This section is based on Demaestri and Farfán's (2004) research on the treatment of deposit insurance schemes in Latin America and the Caribbean. In comparing the characteristics of deposit insurance schemes worldwide, Barth, Caprio, and Levine's (2001) database of 151 countries was taken into account.

⁴ Uruguay has established a system, although it is not yet regulated. Bolivia has a Financial Restructuring Fund that acts as deposit insurance.

TABLE 7.1 DEPOSIT INSURANCE REGIMES IN LATIN AMERICA AND THE CARIBBEAN

Country	Explicit?	Date of creation	Type of institution	Type of participation	Maximum amount insured ^a	Deductible	Uniform or differentiated by risk premium
Argentina	Yes	1995	Private	Mandatory	10.3	No	Differentiated
Bahamas	Yes	1999	Public	Mandatory	50	No	Uniform
Barbados	No						
Belize	No						
Bolivia	Yes	1999	Public	Mandatory	10		Uniform
Brazil	Yes	1995	Private	Mandatory	5.7	No	Uniform
Chile	Yes	1986	Public	Mandatory	2.8		Does not apply
Colombia	Yes	1985	Public	Mandatory	6.9	Yes	Differentiated
Costa Rica	No						
Dominican Republic	Yes	2002	Public	Mandatory	23.6	No	Uniform
Ecuador	Yes	1999	Public	Mandatory	8	Yes	Differentiated
El Salvador	Yes	1999	Mixed	Mandatory	7	No	Differentiated
Guatemala	Yes	2002	Public	Mandatory	2.6	No	Uniform
Guyana	No						
Haiti	No						
Honduras	Yes	2001	Mixed	Mandatory	8.9	No	Uniform ^b
Jamaica	Yes	1998	Public	Mandatory	5.9	No	Uniform
Mexico	Yes	1999	Public	Mandatory	130	No	Differentiated
Nicaragua	Yes	2001	Public	Mandatory	20	No	Differentiated
Panama	No						
Paraguay	Yes	2003	Public	Mandatory	10.2	No	Uniform
Peru	Yes	1992	Mixed	Mandatory	19.5	No	Differentiated
Surinam	No						
Trinidad and Tobago	Yes	1986	Public	Mandatory	7.9	No	Uniform
Uruguay	Yes	2002	Public	Mandatory	^c	No	Differentiated
Venezuela	Yes	1995	Private	Mandatory	7.1	No	Uniform

^a Values are in thousands of U.S. dollar equivalents.

^b Can be changed annually.

^c The specific amount has not yet been specified.

Source: World Bank (2003).

Although there were earlier experiences in the region, the systems currently in force were for the most part implemented during the 1990s and at the beginning of this century. Chile (1986), Colombia (1985), and Trinidad and Tobago (1986) have the oldest systems. The deposit insurance system in Paraguay, established in December 2003, is the most recent in the region. Also noteworthy is the date of creation of the deposit insurance systems, which in 17 of the 19 cases identified were implemented on a date close to a systemic banking crisis (see Table 7.2).

Membership

The 19 countries with an explicit deposit insurance scheme have established compulsory participation of institutions that accept deposits from the public.⁵ Worldwide, almost 90 percent of the explicit systems have compulsory institution participation.

⁵ In Uruguay the executive branch was authorized to exempt from contribution to the insurance fund those institutions with sufficient insurance or support from other institutions or parent companies abroad.

TABLE 7.2 FINANCIAL CRISES AND CREATION OF EXPLICIT DEPOSIT INSURANCE REGIMES IN LATIN AMERICA AND THE CARIBBEAN

Country	Date of creation	Date of financial crisis
Argentina	1995	1989–90 and 1995
Bolivia	1999	1999
Brazil	1995	1994
Chile	1986	1981–86
Colombia	1985	1982–87
Dominican Republic	2002	2003
Ecuador	1999	1998–present
El Salvador	1999	1989
Guatemala	2002	1990s
Jamaica	1998	1996
Mexico	1999	1994–97
Nicaragua	2001	1980s to 1996
Paraguay	2002	2001
Peru	1992	1992
Trinidad and Tobago	1986	1982–83
Uruguay	2003	2002
Venezuela	1995	1994–95

Source: For year of creation, World Bank (2003); for financial crisis for Uruguay and Dominican Republic, central bank data; for other countries, Caprio and Kinglbiel (1999) and World Bank data (<http://econ.worldbank.org/view.php?id=16172>).

Coverage

Currently the 19 countries with explicit systems in the region offer limited coverage.⁶ Particular attention should be paid to the cases of Ecuador and Mexico, which until recently offered unlimited guarantees. However, Ecuador has just completed the process of transitioning to limited coverage, while Mexico is in a gradual process of reducing the amount insured.⁷

Table 7.1 shows that 12 countries have established deposit coverage for amounts less than US\$10,300. By contrast, Peru, Nicaragua, the Dominican Republic, the Bahamas, and Mexico insure deposits for more than that amount, with Mexico insuring the greatest amount. Table 7.3 shows that coverage in Latin America and the Caribbean is comparable to that observed around the world.⁸

Figure 7.1 shows that Mexico has the highest ratio of maximum amount insured to per capita GDP of the countries studied. Considering the coverage goal for 2005 (US\$130,000), the maximum coverage will be close to 14 times GDP per capita.⁹ Chile has the lowest ratio at 0.3. Nicaragua has a relatively high ratio in comparison with the rest of the countries at 9.3.

All the countries in Latin America and the Caribbean are establishing nearly all deposits as insurable.

Nevertheless, some countries have restrictions, chiefly on foreign currency deposits or interbank deposits. Of the 19 countries with explicit schemes, four exclude coverage for foreign currency deposits, while 11 exclude interbank deposits.

Premiums

There is a growing tendency to set premiums differentiated by level of risk. Seven countries in the region have differentiated premiums. Worldwide, 30 percent of the countries have this type of premium.

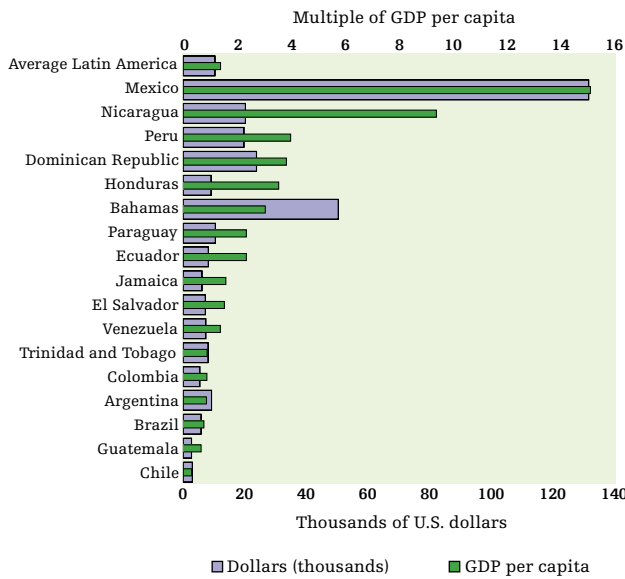
⁶ In the case of Bolivia, the Financial Restructuring Fund does not establish a maximum amount. In the case of Uruguay, regulations for the system have not yet been drawn up. The Financial System Restructuring Act in Uruguay authorizes the executive branch to set aside part of its resources to cover deposits up to US\$100,000.

⁷ In 2004 the maximum amount insurable was up to 5 million Unidades de Inversión (UDIS), which is approximately US\$1.6 million, and it is anticipated that the amount will drop to 400,000 UDIS (approximately US\$130,000) in 2005.

⁸ Of the total 151 countries in the database, 75 have explicit systems, and of these, 45 countries have data referring to the maximum insurable amount on which the statistics in this chapter were prepared.

⁹ Data on per capita GDP are from the World Bank's World Development Indicators (in current 2002 U.S. dollars).

FIGURE 7.1 Maximum Insured Bank Deposits in Latin America and the Caribbean



Note: For Mexico, the amount in thousands of dollars is the value proposed for 2005 (around US\$130,000).
 Source: World Bank (2003).

TABLE 7.3 MAXIMUM INSURED DEPOSITS IN LATIN AMERICA AND THE CARIBBEAN AND THE WORLD, 2003 (Percentage of countries)

Maximum insured amount (U.S. dollars)	Latin America	World
5,000	11.1	31.0
10,000	55.6	20.0
20,000	16.7	15.6
100,000	11.1	31.1
More than 100,000	5.6	2.2

Source: World Bank (2003).

Co-insurance

Colombia and Chile are establishing co-insurance systems in a strict sense. In the case of Colombia, the system establishes a co-insurance of 25 percent. Chile is establishing a co-insurance scheme for term deposits in which they will be insurable up to a maximum of 90 percent, provided the account holder is a private individual and the account holds term registered instruments.

Of the total sample of 151 countries, 75 have an explicit scheme, and of these, 49 percent have established co-insurance as a characteristic of the explicit deposit insurance scheme. The percentage participation is greater than in the case of countries in Latin America and the Caribbean (20 percent).

Institutionality and Administration

Explicit deposit insurance schemes in the region are for the most part administered by the state (14 of 19). Only two have a private scheme (Argentina and Brazil), and three have a mixed scheme (El Salvador, Honduras, and Peru). Public schemes are in the main attached to and administered by the central bank or are independent public law entities.

Funding

Of the 19 countries with explicit deposit insurance schemes in the region, most have a system primarily funded by banks. Only Chile has a clearly publicly funded system, while five countries (El Salvador, Guatemala, Honduras, Mexico, and Trinidad and Tobago) have a system with mixed sources of financing. This follows the international pattern closely. Excluding Latin America and the Caribbean, in the rest of the world, around 65 percent of countries with deposit insurance systems fund them using private sources only, nearly 5 percent use only government funding, and 30 percent use both sources of funding.

Thus, with respect to the basic characteristics, there are no great differences between deposit insurance schemes in Latin America and the Caribbean and those in the rest of the world. In fact, the available empirical evidence suggests that in Latin American and Caribbean countries, deposit insurance has not decreased market discipline on the part of depositors (See Martínez Pería and Schmukler 2001). Despite the existence of deposit insurance, depositors move their bank deposits when they see that the risk posture of the bank is excessive, or when they demand higher returns from their deposits in order to offset risks. Therefore, this aspect of moral hazard seems to have been limited in Latin America.

CRISES

To better understand the range and limitations of deposit insurance schemes, it is essential to distinguish between their effects in times of financial “normality” and

in times of crises. In normal times, deposit insurance plays a preventive role by increasing the confidence of depositors and limiting the possibilities of bank runs and makes it possible to take care of depositors in the event of closings of isolated institutions that are not large enough to constitute a systemic risk. Deposit insurance can function efficiently up to the point where a risk of generalized collapse exists. However, from that point on, owing to the usual magnitude of crises, bank failures become a fiscal problem. Deposit insurance cannot possibly cover the systemic risk of countries. Rather, deposit insurance is an institution established to attempt to contain risks and prevent such risks from becoming systemic.

The case of Argentina illustrates this point perfectly. In 1995 at the time of the Tequila crisis, Argentina did not have deposit insurance. It was put into place just after the crisis in 1995 and was designed based on international best practice. The insurance offered significant financial assistance and helped to successfully resolve the liquidation of banks with solvency problems during the period between financial crises (1995–2001). This was achieved chiefly through the creation of financial trusts set up with the assets of liquidated banks after transferring their deposits and assets in equal amounts to other entities. When the crisis in 2001 began, due to its large size, depositors were rescued for the most part by the National Treasury (with liquidity assistance to the institutions by the Central Bank), and thus the role of deposit insurance was relatively marginal.

