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Monetary and Exchange Affairs Department

Deposit Insurance: A Survey of Actual and Best Practices

Prepared by Gillian G. H. Garcia¹

Authorized for distribution by Charles Enoch

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Abstract

The paper surveys the characteristics of explicit systems of deposit insurance in 68 countries. It compares these actual practices with a set of best practices that has been adopted by IMF staff for their advice to member countries. These best practices seek to establish a system of deposit insurance that provides incentives for all parties—whether they are directly or indirectly affected by the guarantee—to keep the financial system sound. The paper discerns some convergence toward best practices in recent years, but notes several areas where improvements in the incentive structure are still necessary.

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Author's E-Mail Address: ggarcia@imf.org

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I. INTRODUCTION: BACKGROUND

In most countries, banks are the most important financial institutions for intermediating between savers and borrowers, assessing risks, executing monetary policy, and providing payment services. At the same time, the configuration of their portfolios makes them especially vulnerable to illiquidity and insolvency. In particular, by law, bank deposits have to be repaid at par, in addition, they are highly leveraged and often maintain liquid assets to meet withdrawals only in normal times. Moreover, there is concern that the demise of one bank, if handled poorly, can spill over to others creating negative externalities, causing a more general problem for other banks in the system. For these reasons, many governments provide a safety net for banks that generally includes deposit protection and lender-of-last-resort facilities, in addition to a system of bank regulation and supervision.

A country faces six choices regarding deposit protection: (1) an explicit denial of protection (as in New Zealand); (2) legal priority for the claims of depositors over other claimants during the liquidation of a failed bank (as in Australia) instead of a deposit guarantee; (3) ambiguity regarding coverage; (4) an implicit guarantee as found in 55 countries (see Kyei, 1995); (5) explicit limited coverage (identified in this paper in 68 countries); and (6) a full explicit guarantee (as exists currently in 10 crisis countries). Choosing the first or second option is legitimate, but rare. The sixth possibility is generally reserved for periods of severe and systemic crisis. This paper explores explicit limited coverage, and argues that it is preferable to both ambiguity and implicit coverage. If well-designed, an explicit deposit insurance system (DIS) can be preferable to no insurance and can complement legal priority.

The proliferation of crises during the 1980s and 1990s has led a large number of countries to initiate, or consider instituting, an explicit system of deposit insurance.² In fact, 52 of the 68 countries now known to have an explicit DIS in operation, established it during the past 19 years. During the same period, 18 countries reformed the DIS that they already had in place; often to improve its incentive structure in light of experience.³

Countries often have several objectives when they establish a DIS. Some of these objectives are achievable; others are not. One of the most common goals is to avoid an imminent crisis or resolve an existing one; but this objective is regrettably unrealistic. The incompatibility arises because achieving it will, most probably, require a full guarantee, which conflicts with the incentives needed to keep the banking system sound in the long run. This paper discusses DIS only in normal times; a separate response may be needed to manage a contagious, systemic crisis, which may require overriding an existing DIS. Thus, an attempt to replace a full implicit guarantee by a limited DIS when the banking system is confronting significant problems is likely to be ineffective. DIS initiation must wait until after the banking system has been recapitalized and restructured.

²See for example, Lindgren, Garcia, and Saal (1996).

³Many did so to conform with the European Union's 1994 Directive on Deposit Insurance.

Three of the most common and most realistically achievable objectives for a system of limited deposit insurance in normal times are to: (1) protect small depositors; (2) elucidate the rules under which sound depository institutions operate and under which failed institutions will be closed or otherwise resolved; and, in so doing, (3) help to stabilize the financial system by establishing an incentive structure that will encourage good banking practices. The first principle suggests that all depository institutions, including commercial, investment, merchant, savings, cooperative banks, finance companies, and credit unions that offer par valued deposits to the public, should be covered by deposit insurance.⁴

Although the World Bank and the Fund have responded to inquiries from member countries concerning deposit insurance for a number of years, their interest in the subject has grown recently. Aided by the IMF's advantage of near universal membership (currently 182 countries are members), Kyei (1995) conducted a survey of both implicit and explicit systems of deposit insurance that were in existence earlier in the decade. Lindgren and Garcia (1996) surveyed explicit systems and detailed best practices for DIS, while Garcia (1997) and Folkerts-Landau and Lindgren (1998) summarized them.

In the following section, the current paper describes a summary table of best practices for DIS in normal times. Section III offers an updated survey of a number of the elements of explicit DIS that were in operation in Spring 1999. Section IV attempts to discern trends in convergence toward best practices. Section V presents the study's conclusions.

II. BEST PRACTICES FOR THE DEPOSIT INSURER IN NORMAL TIMES

A well-designed DIS has a number of advantages in normal times; however, there are also pitfalls (particularly moral hazard, adverse selection and agency problems) in poorly constructed explicit systems. This section first examines these pitfalls, then summarizes features that are designed to obtain the benefits and avoid these particular hazards during normal times. In developing these features, an attempt is made to draw on recent experience in avoiding, and dealing with financial crises around the world. However, best practices are also influenced by modern finance theory, which emphasizes the importance of good incentive structures for promoting financial soundness.⁵ The section continues by listing departures from best practice, and the issues that arise when implementing a DIS.

⁴For a definition of "deposit" and a discussion of the characteristics of depository institutions that make them candidates for deposit protection, see Garcia (1996). This paper also discusses other objectives for a DIS, including increasing competition and promoting economic growth, that countries sometimes harbor for their DIS.

⁵Finance theory was utilized to draw lessons from the insolvency of the Federal Savings and Loan Insurance Corporation in the United States in the mid-1980s. Numerous inquiries into that insolvency found that the incentive structure offered by the DIS to insurance agency staff, bankers, depositors, supervisors, the lender of last resort, and politicians was counter-productive. The law governing the DIS was subsequently changed in 1991 to remedy these deficiencies.

A. Pitfalls to a DIS

Three strands of governance are generally recognized for depository institutions: (1) internal governance from owners, boards of directors, and managers; (2) market discipline from depositors, other creditors and even borrowers; and (3) regulatory restraint imposed by the legislature and the regulatory agencies, and implemented by the supervisor. A poorly designed DIS can hamper all three. The major pitfalls to a poorly designed DIS—agency problems, moral hazard, and adverse selection—can be particularly serious if the DIS is not “incentive-compatible” for all of the parties that are directly or even indirectly affected by the DIS contract; that is, it fails to provide incentives that induce all economic agents affected by the DIS to keep the financial system sound. While it is possible for an incentive-incompatible system to perform its responsibilities and remain solvent, it will need to rely more heavily on a formal system of regulation and supervision than it would in a DIS that embodies a good incentive structure. Moreover, an ill-conceived DIS impedes necessary regulation and supervision, and, in doing so, places the DIS and the banking system itself at risk of collapse.

Insurance of all kinds, including life, health, property and casualty insurance, requires a strong incentive structure, but a DIS is particularly prone to incentive deficiencies because such a system differs from other forms of insurance in two respects. First, “regular insurance” directly involves just two parties—the guarantor and the entity protected. There are, however, three immediate parties to a deposit insurance contract (the DIS, the depositor, and his bank). Moreover, additional groups benefit indirectly, and all may respond to the existence of the contract in undesirable ways.⁶ Depositors and the bank benefit from the guarantee because the (small) depositor’s accounts are protected, while the bank receives a credit enhancement that both enables it to raise funds at a lower rate than would be possible without the guarantee, and shields it from widespread withdrawals by retail depositors. The second difference is that, while regular insurance usually protects against the adverse effects of independent events, particularly “acts of God,” bank failures are often not independent events but occur in waves and frequently result from mistakes made by one of the beneficiaries; that is, the bank itself, as a result of the guarantee.

The most evident danger is the **moral hazard** that can occur when the protection extended to depositors makes them less careful initially in the selection of their bank and, later, deters them from moving their funds to a safer haven. In addition, the bank owners and managers of the insured bank, knowing that runs are unlikely, may take on additional risk in their asset portfolios, reduce the amount of capital and liquid reserves they hold to enable them to weather shocks.

Many other parties are affected indirectly by the deposit protection contract and they, too, may become subject to moral hazard. For example, the reduced fear of runs may enable those that are not formally part of the insurance contract to change their behavior, sometimes in regrettable ways. Borrowers may decide to borrow from troubled institutions instead of taking their business to a sound bank and avoiding the risk of having their loans called by the

⁶See, for example, Kane (1995).

acquirer or liquidator of an insolvent bank. Moral hazard can also affect supervisors who may not obtain or disseminate sufficient information about their banking clients, and may become reluctant to require unsound banks to take remedial action because there is little or no threat of market discipline to force them to act. Politicians are also recipients of moral hazard when a deposit insurance guarantee provides “cover” if they interfere with the supervisory system, demanding forbearance.

A DIS that proves unduly attractive to weak institutions while repelling stronger members suffers from **adverse selection**. It can occur when a DIS provides insurance that is strictly voluntary and charges premiums that are not adjusted for the risk that the bank places on the guarantee fund. In this situation, the strongest banks are likely to remain outside the DIS or to withdraw from it if they have already become members. When strong banks withdraw, the premiums charged to remaining members have to be raised to cover the costs of paying the depositors of failed banks. The increase may induce the next strata of stronger banks to withdraw until only the weakest banks remain in the system. Such a system is unlikely to remain solvent. In short, a poorly designed DIS can cause a deterioration in the condition of the banking system.

Agency problems occur whenever an employee or a contractor, acting as an agent for the principal that he/she represents, pursues his own interests rather than those of his employer. A DIS can encounter agency problems in its relationships both with the government and the industry it oversees. They can occur when members of DIS staff place their own career advancement above the interests of the depositors and taxpayers they represent and, for example, delay the resolution of a failed bank, thus increasing its cost of resolution. DIS staff may also be prone to “**regulatory capture**,” when they place the interests of the industry whose deposits they guarantee above the needs of depositors and taxpayers.⁷ In addition, the DIS may become subservient to the influence of politicians who press for special treatment (forbearance) for their supporters. That is, to coin a phrase, they become subject to “**political capture**.”

B. Best Practices

Best practices seek to provide a set of incentives that induce economic agents to keep the financial system sound. The details of such an “incentive-compatible” system are summarized as 15 line items in the first column of Table 1. First and foremost, if there is to be a system of deposit insurance, it should be explicitly and clearly defined in law and regulation. These laws and regulations need to be known to, and understood by, the public so that bank customers can take actions to protect their interests. Transparency in a well-designed system will reduce moral hazard and agency problems.

Transparency is reinforced when the authorities move to discipline problem banks promptly to restore them to health. If deterioration continues despite the supervisors’ remedial actions, the authorities need to close, merge, or otherwise resolve troubled banks

⁷See Posner (1974) and Peltzman (1976) for further discussion of regulatory capture.

expeditiously when (or preferably just before) they become insolvent. Prompt action reduces the likelihood that a failing bank will engage in risky and potentially expensive gambles for redemption if it is allowed to continue in business. The supervisor needs good information on the condition of individual banks so that it can take appropriate action. Nonproprietary information should be released to the public to support market discipline.

The structure of the DIS is more likely to be incentive-compatible if membership is compulsory, if coverage is low to deter moral hazard, and if insurance premiums are risk-adjusted to avoid adverse selection. The idea behind risk-adjustment is to moderate the subsidy provided by strong to weaker institutions by allowing sound institutions to pay lower premiums than their competitors who pose greater risk of loss on DIS resources. While the concept is clear, implementation presents a number of practical obstacles that are discussed below. In addition, depositors need to have confidence in the system, and that requires that the DIS be administratively efficient in paying out insured deposits promptly, and that it be adequately funded so that it can resolve failed institutions firmly without delay.

The DIS should act in the interests of both depositors and the taxpayers who back up the fund. Consequently, the DIS should be accountable to the public, while being independent of political interference. Since the roles of the lender of last resort, the supervisor, and the DIS are different, it is often advisable, especially in large countries, to house them in three separate agencies. However, these agencies will need to share information and coordinate their actions. Agency separation may be impractical in countries that face a shortage of financial skills, however. To avoid regulatory capture by the industry it guarantees, it is typically not advisable to place bankers who are currently employed in the industry in charge of decision making because their interests would conflict with those of depositors and taxpayers.⁸ However, bankers should be given the opportunity to serve on an advisory board, where they can offer useful advice.

⁸However, bankers serve on the boards on some successful DIS, such as those in Argentina and Peru.

Table 1. Best Practices for an Explicit System of Deposit Insurance System in Normal Times and Departures from Them

Best Practice	Departures from Best Practice	Practical Issues to be Resolved
1. Avoid incentive problems.	Agency problems, moral hazard, and adverse selection.	Which incentives are best? How to incorporate them in law and regulation?
2. Define the system explicitly in law and regulation.	The system is implicit and ambiguous.	How to amend the laws and regulations to ensure transparency and certainty.
3. Give the supervisor a system of prompt remedial actions.	The supervisor takes no, or late remedial actions.	Should these remedial powers be mandatory or discretionary?
4. Ensure that the supervisor resolves failed depository institutions promptly.	Forbearance: banks that should be resolved continue to operate.	The types and importance of closure policies. Should the DIA be involved?
5. Provide low coverage.	There is high, even full coverage.	Which types of institutions should be included in the DIS and which deposits should be covered; what is the appropriate level of coverage; should there be coinsurance?
6. Make membership compulsory.	The scheme is voluntary.	How to avoid adverse selection?
7. Pay deposits quickly.	There are delays in payment.	How to effect prompt payment?
8. Ensure adequate sources of funding to avoid insolvency.	The DIS is underfunded or insolvent.	Whether to choose a funded or ex post DIS? What are the appropriate levels for premiums and the accumulated fund? Whether to have back-up funding from the government?
9. Risk-adjust premiums.	Flat rate premiums.	How to set premiums according to risk?
10. Organize good information.	Bad information.	What data do supervisors need?
11. Make appropriate disclosure.	Little, or misleading disclosure.	What should be disclosed and when?
12. Create an independent, but accountable DIS agency.	Political interference and lack of accountability.	Designing the DIA and its board of directors to avoid political interference, but promote accountability.
13. Have bankers on an advisory not the main board.	Bankers are in control.	How best to avoid conflicts of interest?
14. Ensure close relations with the Lender of last resort and the supervisor.	Relationships are weak.	Poor lender-of-last-resort policies that raise costs to the DIS; sharing information.
15. Begin an explicit, limited DIS when the banking system is sound.	Begin when the system is weak so coverage is set high to avoid runs.	How to resolve banking problems so that the DIS can commence?

Source: Adapted from Garcia, p. 469, 1997.

C. Departures from Best Practices

Column 2 of Table 1 lists a number of commonly occurring departures from best practice that fail to provide the needed incentive structure. These departures include maintaining an implicit, voluntary, underfunded, and/or ambiguous system; failing to take remedial actions such as resolving failed banks; providing excessive coverage; delaying the payout of insured deposits; having and disclosing insufficient information; exposing the DIS to political or industry control; allowing inadequate, even combative relationships among the concerned agencies; and starting a DIS while the banking system is unsound.

D. Practical Issues to be Resolved

A number of more detailed issues, enumerated in column three of Table 1, need to be resolved in order to implement an effective DIS. They range from: how best to effect the needed changes in the law and regulation; whether remedial powers should be mandatory or discretionary; which institutions and which types of deposit should be covered, and what should be the level of coverage; what premiums to charge and what, if any, should be the target level for the fund; whether and how to risk-adjust premiums; how the government can best back up the fund's solvency; what data the supervisors need, and what they should disseminate to the public; avoiding political interference while holding the DIS accountable for its actions; finding a way to take advantage of bankers' perspectives on DIS issues without exposing the system to regulatory capture; how the lender of last resort, the DIS and the supervisor can effectively share information and cooperate; and how to restructure and recapitalize a systemically weak banking system before a DIS can be introduced.⁹

Ten significant issues that present practical problems in the creation of a DIS are discussed below: (1) confining eligibility to commercial banks or extending it to nonbank depository institutions, such as investment, merchant, savings, and cooperative banks, finance companies, and credit unions; (2) setting and adjusting levels of coverage; (3) choosing between a funded and ex post system; (4) risk-adjusting premiums; (5) selecting a financial target for the fund; (6) providing supplementary funding; (7) designing the role of the deposit insurance agency (DIA) and the composition of its board of directors; (8) deciding whether to assign back-up powers for the deposit insurance agency to supervise and close a troubled institution; (9) achieving cooperation, and the associated exchange of information among the central bank, supervisor and DIS; and (10) identifying the right time to initiate a DIS.

Eligibility for inclusion

Deposits are insured because institutions that offer them are particularly vulnerable to illiquidity and insolvency. Consequently, all institutions that take par valued deposits from the general public should be considered for inclusion. However, investment banks, merchant banks and wholesale finance companies that take only large deposits and make large

⁹See Alexander, Davis, Ebrill, and Lindgren (1997); Enoch and Garcia (1999).

investments are not good candidates for coverage in a system that aims to protect the small depositor. Savings and cooperative banks, together with retail finance companies and credit unions would seem, in principle, to be good candidates for inclusion.

Two practical problems have to be addressed before this principle can be put into effect, however. First, it is impractical to guarantee institutions that are not subject to effective supervision and regulation. To insure them risks failure of the DIS. Consequently, inclusion should be open only to those classes of depository institutions that are well regulated and supervised. Frequently, this condition is not met and the institutions involved should not be insured until the deficiency is remedied. Second, some types of depository institutions, such as finance companies in some countries, may be more risky than commercial banks; be subject to different laws and regulations; and may be overseen by a less effective system of supervision. In this situation, creating separate insurance schemes, possibly with different structures for premiums, may be the answer. Several countries, including France, Germany, Italy, Japan, Norway, Spain, and the United States, have established separate systems for different classes of institutions.¹⁰

Maintaining a fund or imposing ex post levies?

While they need not be inherent in the design of the two different forms of DIS; in practice, there are a number of differences between funded and most ex post schemes.¹¹ Funded schemes appear to be more rule-based and offer less uncertainty than ex post DIS. As will be seen in the next section, ex post systems are often privately run by their member institutions; do not have clearly specified responsibilities regarding sharing the costs of compensating depositors; lack back-stop funding from the government; offer coinsurance; are limited in their roles and responsibilities; and, because they are privately run, have difficulty in obtaining information from the supervisor and the central bank. Given that best practices recommend avoiding ambiguity and sharing information, it is perhaps not surprising that most recently created DIS have opted to build a fund.

All but one (that in Bahrain) of the 10 ex post DIS are located in Europe and all but two of the European ex post DIS (those in Gibraltar and Switzerland) belong to members of the EU. The EU Directive requires member country to offer a compulsory DIS. Consequently, three member countries (France, Germany, and Italy) with ex post schemes that were previously voluntary, now offer compulsory DIS.

¹⁰See Table 3. Arzbach and Duran (1999) describe the creation of DIS for credit unions in Latin America.

¹¹The author is grateful to Charles Siegman for this insight.

Setting and adjusting the level of coverage

While Fund staff use twice per capita income as a rule of thumb to evaluate coverage levels, they also ask country authorities to consider other factors, particularly the distribution of deposits according to their size. The coverage limit will want to encompass a relatively high percentage of the number of accounts, but a smaller percentage of the total value of deposits in the system. (Table 6 illustrates this process and shows that countries typically cover 90 percent or more of the number of accounts but only perhaps 40 percent of total deposits system wide.)

In addition, coverage can be adjusted upwards over time to reflect higher GDP and faster rates of inflation. If the coverage ratio was initially set very low because the DIS fund needed time to build its resources, the level can be raised as the fund matures. The adjustments can be made by indexing coverage or making, preferably rare, adjustments. There is both an advantage and a disadvantage to indexing coverage levels. The advantage is that it avoids setting unduly high limits initially; the disadvantage is that it will be hard for the public to keep abreast of changes in the coverage level.

Risk-adjusting premiums

There are two practical problems to risk-adjusting the premiums banks pay for the deposit guarantee. Solving these problems may be expected to elicit country-specific responses. First, accurately forecasting the degree of risk that a bank places on the fund is a skill that is currently relatively undeveloped. Moreover, the risk premiums imposed by the DIA need to be based on objective criteria so that they can be justified to the bank and the courts, should the bank challenge the ruling. Two candidates for inclusion in the risk calculation are capital adequacy and supervisory rating. Capital adequacy, however, even when accurately measured tends to be a lagging indicator of bank condition, and is also subject to manipulation through management's system of loan classification and provisioning. While supervisory ratings are kept confidential in most countries, the bank's annual accounts will report the premium it is paying and so reveal its supervisory rating. To retain confidentiality, the calculation of the risk premium can be designed to be complex; yet there is a valid argument for simplicity, transparency and accountability in premium setting. The just-mentioned characteristics may be desirable when the financial system is sound, but are unattainable when it is weak. Thus, countries may want to announce their intention to risk-adjust premiums and then set a timetable for successive stages of widening the premium band so that banks have time to make complementary adjustments as they wish.

Second, a degree of subsidy is inherent in insurance. If premiums were to precisely represent a bank's risk to the fund, they would become prohibitively expensive for already weak institutions. This observation reinforces the argument that the gradations in risk-adjustment should be introduced slowly, so that institutions can adapt their behavior over time by improving their management control practices in addition to reducing their risk exposure and the subsidy they are to receive from their stronger peers.

Setting a target for the fund

It is useful for the DIA to set a target level for the fund (usually expressed as a percentage of total or insured deposits) that would allow it to attain and retain financial viability and avoid the financial deficiencies that lead to forbearance for troubled banks and/or insolvency of the fund. When the DIS is new, the target will be set after forecasting the income and expenses (including outlays to compensate depositors of failed banks) of the fund. The target then provides an indication of the premiums that need to be set, and subsequently whether they should be reduced when the fund exceeds its target level, or raised to replenish a depleted fund. Setting an appropriate target demands a realistic assessment of the condition of the banking industry, the size and timing of the financial demands that are likely to be placed on the fund, and the industry's ability to pay the necessary premiums without prejudicing its profitability, solvency and liquidity.¹²

Supplementary funding

Countries usually decide that they want the government to back up a well-run DIS that is met by unexpected demands on its resources and is in need of additional funds in order to carry out its responsibilities. Moreover, Fund staff argue in favor of such government backing. However, providing the needed resources is the responsibility of the ministry of finance, not the central bank. Since the ministry may not be able to marshal quickly the resources needed, the DIA may need to borrow from the markets, or the central bank as the lender of last resort. The government should guarantee any loan from the central banks or from the markets, and member banks should be required to repay the DIS's loan over time.

The board of directors

While it is important to have the supervisory agency, the ministry of finance, and possibly also the central bank represented *ex officio* on the board of the DIA, government members should not dominate the board by constituting the majority of its members or by holding the position of chairman. The chairman and the majority of the board should be worthy, experienced but independent members of the public with no current ties to the banking industry that would present a conflict of interests. Thus, bankers should not be on the board, although their valuable experience can be utilized through their presence on an advisory board.

Back-up powers for the DIA

A supervisor may succumb to the agency problem of protecting the interests of a bank or his/her own career (that might be destroyed by admitting supervisory failure when closing a bank). The DIA, on the other hand, has more pressing needs to close a failed bank in order to curtail the losses it imposes on the fund. A balance needs to be struck between preserving

¹²If the banking industry is very weak, a DIS may not be feasible until it has been restructured.

supervisory autonomy and avoiding the DIA's potential eagerness to close troubled banks on the one hand, and the danger of inappropriate forbearance by the supervisor on the other. Some countries have resolved this particular governmental conflict of interests informally, while others have legislated formal back-up powers for the DIA to be present at the on-site inspection of troubled banks, and to publicly revoke the guarantee from a bank it deems to be nonviable, which is equivalent to closing that bank. The government is more likely to allow back-up powers to a DIS that is run by a public body. Granting such powers to a private bankers' club would be problematic.

Cooperation and information sharing

In some countries, the supervisor passes a bank whose license it has revoked to the DIA for disposal. To do its job efficiently and cost-effectively, the DIA will need adequate notice of the approaching closure. Thus, the DIA must be kept informed of the status of individual institutions and the remedial actions that are taken against troubled banks. In addition, the central bank may provide lender-of-last-resort liquidity that allows an insolvent bank to remain liquid and continue operating. Such action can thwart the desires of the supervisor to revoke the license and the DIA to minimize its costs of resolution. To avoid these pitfalls, there must be close cooperation and exchanges of information, under appropriate conditions of confidentiality, among the supervisor, the lender of last resort and the DIA. Again sharing information is expected to be easier among government agencies.

Choosing when to begin the DIS

Countries are often tempted to begin a limited, explicit system when a crisis is imminent or in progress in the mistaken belief that it will avoid or cure the crisis. Limited coverage will not prevent uninsured depositors from running. Fearing runs, the authorities may consider setting the coverage rate high. However, if the public perceives that all banks are weak, there is a risk of a "flight from the currency" and to banks abroad. Otherwise, there will be a flight "to quality" from weak banks to safer institutions within the country. Only full coverage can (but not necessarily will) counter flights to quality and from the currency. Thus, to initiate a limited DIS when there is a risk of deposit runs, is to invite such runs. Setting high, but limited, coverage does not resolve the dilemma. Not only may there be runs by those depositors who hold deposits above the limit; but politically, it will prove very difficult to later reduce the coverage level in order to reduce moral hazard.¹³ Faced with a systemic

¹³Countries, such as the United States, set a high level when it raised coverage in 1980 and had to wait for inflation and the growth of GDP to reduce the coverage ratio to more incentive-compatible levels. The \$100,000 limit set by the United States in 1980 was virtually nine times per capita GDP at that time. It has taken 19 years to reduce the coverage ratio to the current more incentive-compatible level of three times expected 1999 GDP. The excessively high coverage contributed to the S&L crisis in the 1980s (see "The S&L Crisis," pp. 257-279 of the Appendix to Garcia and Plautz, 1998).

crisis, a country has two main courses of action to avoid runs: (1) retain its existing implicit guarantee; or (2) institute a full, temporary guarantee.

III. A SURVEY OF DEPOSIT INSURANCE PRACTICES

Recently, IMF staff conducted a survey of 72 different systems of deposit protection and found 68 systems that are explicitly defined in law and/or regulation.¹⁴ Ten of the 68 countries with explicit DIS are in Africa, 9 in Asia, 32 in Europe, 3 in the Middle East, and 14 in the Americas (see Table 2).¹⁵ Although two (one for commercial banks and the second for savings associations) of the three systems in the United States were started in the 1930s, it was not until the 1960s that other countries began to adopt the DIS that are now still in existence.¹⁶ Nine schemes were initiated in the 1960s, and seven in the 1970s. As the incidence of banking crises escalated in the 1980s, 19 were initiated during the decade. Thirty-one new DIS commenced during the 1990s through April 1999, as banking problems continued to escalate on all continents. As pointed out above, revisions to DIS have been quite common, especially since the European Union Directive in 1994.

The survey, presented in Tables 3 through 7 in the Appendix, throws some light on the extent to which many, although not all, of the best practices have been adopted, and where they have been disregarded.¹⁷ It finds that a number of countries have provisions that temper incentive problems, but certain problems remain in some systems.

¹⁴The entries in Tables 3, 4, and 6 that report the results of the survey have been checked with country authorities and IMF desk officers in 67 of the 68 cases. In the case of Bangladesh, resources were not available to verify the information on the DIS, but data was verified by the World Bank. Subsequently, 36 countries responded to additional questions and the results are presented in Table 5.

¹⁵The system enacted in March 1998 in Jamaica was due to commence in the fall of that year, but the one enacted in Ecuador is not expected to have accumulated enough resources to compensate depositors for two years.

¹⁶Some states within the United States began a DIS earlier, as did Czechoslovakia.

¹⁷Issues relating to prompt corrective action, failure resolution, and speed of depositor compensation were not surveyed.

Table 2. Countries with Explicit Deposit Insurance Systems

Africa	Asia	Europe	Middle East	Western Hemisphere	
Cameroon	Bangladesh	Austria	Latvia	Bahrain	Argentina
Central African Republic	India	Belgium	Lithuania	Lebanon	Brazil
Chad	Japan	Bulgaria	Luxembourg	Oman	Canada
Congo, Republic of Equatorial Guinea	Korea	Croatia	Macedonia		Chile
Gabon	Marshall Islands	Czech Rep.	Netherlands		Colombia
Kenya	Micronesia	Denmark	Norway		Dominican Rep.
Nigeria	Philippines	Estonia	Poland		Ecuador
Tanzania	Sri Lanka	Finland	Portugal		El Salvador
Uganda	Taiwan Province of China	France	Romania		Jamaica
		Germany	Slovak Rep.		Mexico
		Gibraltar	Spain		Peru
		Greece	Sweden		Trinidad & Tobago
		Hungary	Switzerland		United States
		Iceland	Turkey		Venezuela
		Ireland	Ukraine		
		Italy	United Kingdom		
10	9	32	3	14	

Source: Survey results that are presented in Table 3.

A. Contrasting Ex Post and Funded DIS

Austria, Bahrain, France, Germany (for its private DIS), Gibraltar, Italy, Luxembourg, the Netherlands, Switzerland, and the United Kingdom fund their DIS by imposing a levy on members after a banks fails and its depositors need to be compensated. All but two of these schemes are now compulsory, largely because having a compulsory DIS is now required by the EU Directive on Deposit Insurance and a number of countries have been forced to revise the design of the DIS to come into compliance with this Directive. So there is little difference in this respect from funded DIS. While there are no observable differences regarding the types of deposits that are covered by ex post DIS, seven of the nine countries represented in Figure 1 have coverage ratios less than twice per capita GDP and only two (France and Italy) offer higher coverage ratios.

There are notable differences between the two types of scheme in their other features, however. There is, for example, much greater ambiguity in ex post DIS regarding the base on which the insurance obligation is to be calculated. While four ex post countries base the insurance obligation on insured deposits and another uses total deposits, the base is more ambiguous in France, Germany's private scheme, Italy, the Netherlands, and Switzerland (see Table 4). Few countries that offer ex post DIS responded to the follow-up survey, so there is little data about information sharing, but it is likely to be more difficult to pass information from the central bank or government supervisor to a privately run bankers' club that is

operating a DIS than to another government agency. The French response explicitly mentions this difficulty (see Table 6). According to the information in Table 7, three of these DIS have access to back-up funding from the government, while three countries explicitly deny it, and the situation is unspecified and unclear in the other four instances. This reticence to commit public funds is understandable given that seven of these ex post DIS are run privately by representatives of the member banks, two are jointly run, and only one is operated by the government.

B. Combating Adverse Selection

Table 3 shows that, to avoid the problem of adverse selection, 55 of the DIS surveyed are compulsory. Nevertheless, 14 schemes are voluntary and 5 of the voluntary schemes (those in the Dominican Republic, Sri Lanka, Switzerland, and Taiwan Province of China, and Germany's private schemes) do not impose risk-adjusted premiums as an alternative means to combat adverse selection.¹⁸ On the other hand, despite the practical difficulties, including that in accurately measuring risk, 21 countries (Argentina, Bulgaria, Cameroon, the Central African Republic, Chad, Colombia, Republic of Congo, Equatorial Guinea, Finland, Gabon, Hungary, Italy, Macedonia, Peru, Portugal, Romania, Sweden, Turkey, the United States and its two Asian island protectorates) currently risk-adjust their insurance premiums (see Table 4).¹⁹ This is a marked increase in number from earlier in the decade. In addition, Canada and Colombia plan to introduce risk-based premiums in the near future. In an alternative approach to risk-adjustment, Norway and Germany's DIS for savings and cooperative banks charge flat-rate premiums on risk-adjusted assets instead of deposits, so that banks with less risky assets pay less for their insurance.²⁰

C. Curbing Moral Hazard

A number of countries aim to protect small depositors while requiring larger depositors to monitor the condition of their bank. There are two contrasting approaches used to achieve these two objectives. One is to cover depositors of all types at a low level of protection. The other is to keep coverage low but also to confine the guarantee to certain types of depositors; thus ensuring that classes of sophisticated depositors (such as financial institutions, governments and large corporations) remain uninsured. The second approach makes the objective of deposit protection conceptually clear, while the first is easier to administer.

¹⁸The voluntary system in Sri Lanka began in 1987 by charging its 13 members a premium of 0.04 percent of deposits. In 1992, the premium was raised to 0.15 percent and two banks withdrew. Only seven members currently remain.

¹⁹Each of these systems is compulsory despite the risk-adjusted premiums.

²⁰Poland also uses risk-based assets to provide an upper bound on premiums that are, in practice, determined as a percentage of total deposits.

Table 3 shows that 10 systems cover deposits of all types and 36 cover most kinds. On the other hand, 20 DIS exclude all foreign currency deposits and 7 schemes in countries in, or aspiring to be in, the European Union (EU) exclude some non-EU currency deposits from coverage. Many countries that cover foreign deposits pay out in domestic currency to protect the DIS from exposure to foreign exchange risk. Forty-five DIS do not cover interbank deposits, and 16 guarantee only, or mainly, household deposits. Evidently, a large number of countries find it worthwhile to undertake the administrative burden of giving preference to less sophisticated depositors.

Coverage limits

The coverage limit should be low enough to encourage large depositors and sophisticated creditors to discipline their bank. Sophisticated depositors exert this discipline by demanding higher deposit rates from weaker banks in compensation for the higher risk of loss they are accepting; in other circumstances, depositors may withhold funds entirely from a particularly troubled bank. Conceptually, it might be appropriate to limit coverage at any point in time to the sum of any individual depositor's accounts, regardless of the number of accounts held in any or all banks. In fact, Chile attempts to do this by imposing a limit on coverage on deposits held by any single depositor anywhere in the financial system. As Table 4 shows, 66 countries limit coverage by applying the limit to the sum of the deposits that a depositor holds at any or each failed bank. By 1999, only two DIS covered each deposit account individually, even if a depositor held several accounts at the failed bank. There has been a shift from per-deposit to per-depositor coverage since the earlier surveys (Kyei 1995; Lindgren and Garcia 1996).

Some countries attempt to strike a balance between discouraging moral hazard and avoiding systemic runs by adopting a system of coinsurance. In 16 DIS (those in Austria, Chile, Colombia, the Czech Republic, the Dominican Republic, Estonia, Germany, Gibraltar, Ireland, Lithuania, Luxembourg, Macedonia, Oman, Poland, Portugal, and the United Kingdom) the depositor loses a small percentage of the covered deposit but is reimbursed for the majority by the DIS. To protect "widows and orphans," it is preferable to cover a very small deposit in full and coinsure above that level. This dual arrangement will reduce the incentive for retail runs while maintaining market discipline.

The IMF typically offers one- or two-times per capita GDP as a rough rule of thumb for appropriately limiting coverage. However, coverage observed in the survey is sometimes high and can considerably exceed the rule-of-thumb limit. Figure 1 and Table 5 show that the average coverage ratio is 3.0 times per capita GDP; with the highest average in Africa and the lowest in Europe. Until 1999, the individual country offering the highest per capita coverage had been Oman, which guaranteed up to 8.8 times 1998 per capita GDP. However, several of the new DIS initiated in 1999 in Africa have very high coverage ratios, with Chad guaranteeing 14.5 times per capita GDP. The lowest ratio for coverage (0.1 percent of per capita GDP) that appears in the survey is that of Macedonia.

The coverage that different countries typically offer encompasses a high percentage of the number of deposit accounts. Table 6 shows that, excluding countries offering a comprehensive guarantee, the percentage of accounts covered in full is typically over 90 percent, although it is lower in Kenya, Nigeria, Sri Lanka, and Tanzania. The guarantee covers a typically much smaller percentage of the value of deposits, ranging from negligible in Estonia and Sri Lanka, to 12 percent in Tanzania, to a high of 83 percent in Italy.

Full coverage in a crisis

Colombia, Ecuador, Indonesia, Japan, Korea, Kuwait, Malaysia, Mexico, Thailand, and Turkey are currently offering coverage in full to deposits of all types and also other liabilities. Chile covers demand deposits in full to protect the payment system, but offers limited coverage on other types of accounts. The comprehensive coverage in the four countries (Japan, Korea, Mexico, and Turkey) that are included in this survey overrides the regular deposit insurance coverage in these countries. Most of these countries began offering full coverage when they declared a financial emergency, with the intention of replacing full emergency coverage with a limited system after the banking system became sound. Sweden and Finland have already retracted the full coverage they offered during the Nordic banking crises and have replaced it with a system of limited coverage. Indonesia, Japan and Thailand plan to replace their comprehensive guarantees when the Asian crisis is over. Colombia and Ecuador plan to limit coverage in the year 2001, and Mexico in 2005.

Whatever the degree of coverage, small depositors at failed banks typically need access to their insured funds rapidly. In effect, delaying payment reduces the value of coverage. Thus, it behooves the DIS to compensate insured depositors immediately, but certainly within 30 days; otherwise, the credibility of the DIS can be undermined, depositors may run from a weak bank, and the retail payments systems may be disrupted. Depositors, finding themselves without their transactions and savings balances, may curtail their expenditure, which can cause or exacerbate a recession. However, the survey did not ask about repayment practices, although rapid repayment is required in a number of the DIS laws.

D. Avoiding Agency Problems

Correct alignment of the DIS with respect to three topics facilitates control over agency problems. The first necessity is to ensure adequate funding; the second is to specify clearly the DIS's role and responsibilities; and the third is to design an appropriate organizational structure.

Funding

A DIS needs to be well-funded, ex ante or ex post, preferably by its member banks. Otherwise, DIS staff may find that their career interests in avoiding the recognition of bank failures may conflict with the needs of depositors and taxpayers for prompt resolution. To this end, 58 of the DIS in the survey maintain a deposit insurance fund, which helps the DIA to pay depositors promptly (Table 4). On the other hand, 9 DIS (those in Austria, Bahrain,

France, Gibraltar, Italy, Luxembourg, the Netherlands, Switzerland, and the United Kingdom) impose ex post levies on the surviving banks when depositors in a failed bank need to be compensated. In fact, Gibraltar and the United Kingdom also maintain small funds to cover administrative expenses, while relying mainly on ex post assessments to compensate depositors of a failed bank.

The target

The DIS needs to be privately funded to encourage bankers to keep their institutions sound. Private funding needs to be sufficient to meet all demands that will be placed upon it in normal times and moderately adverse circumstances. Table 6 shows that 17 countries maintain a target level for the fund, which is often expressed as a desirable percentage of insured deposits. The target ranges from a low of 0.4 percent of deposits in Italy to a high of 20 percent of insured deposits in Kenya. However, only four of the countries that maintain a target (Hungary, Italy, Tanzania, and the United States) currently have accumulated sufficient funds to meet or approximate their objective.

Sixty-six of the 68 explicit schemes have at least some private funding, while two (Chile and the Dominican Republic) rely entirely on government funds (Table 7). A scheme that relies on an accumulated fund will need to charge premiums that are adequate to fund the system. Table 4 shows that 58 DIS charge premiums at regular intervals. Whereas 27 DIS charge premiums on deposits of all types, 34 DIS assess only insured classes of deposits. Most DIS charge premiums on all of the deposits in the categories that are insured while a few attempt to collect premiums only on the amounts of deposits that are covered. While the latter procedure is more equitable in that it avoids this form of cross-subsidization, it can be much more complex to administer.

Premiums

The size of the premium needed to maintain a healthy fund will depend on the current condition of the banking system and its future prospects. Table 4 shows that premiums charged in 1999 ranged from a temporary zero percent of deposits for the strongest banks in the United States, to a low of 0.005 percent in Bangladesh, and a high of 2 percent in Venezuela.²¹ Without detailed knowledge of each country's banking system and DIS, it is difficult to judge whether the premiums being charged are adequate to cover immediate outlays or to accumulate a fund sufficient to survive the next banking crisis. However, it is noticeable that the actual level of the accumulated fund falls well below its target level in nine of the 17 countries that maintain a target, which suggests that premiums in these countries are not currently adequate to meet the needs they face. Premiums in other countries that do not set a target may also be insufficient to cover the risks that the DIS faces.

²¹By law, the Federal Deposit Insurance Corporation in the United States does not impose premiums on the highest quality banks when its fund is above the target level of 1.25 percent of insured deposits, as it is now.

One way to protect the resources of the DIS is to give depositors, or the DIA itself, priority over the claims on the assets of the insured failed bank. Such priority has an advantage in that it increases the amount the DIS is likely to recover from the assets of the failed bank, and so reduces financial demands on the accumulated fund. But it also has a disadvantage. The problem arises because, where the DIA is the receiver/liquidator of the failed bank, it has less incentive to maximize the total value of recovered assets when it has a legal priority. Table 6 shows that 15 of the 36 countries that provided information on these issues gave legal priority to depositors or the DIA, but the majority of countries do not. In other countries, such as Australia and Malaysia, priority is used as a way to protect depositors without establishing a formal DIS. As noted above, however, Malaysia also introduced an explicit full guarantee during the Asian crisis.

Back-up funding

As discussed above, an underfunded scheme will prove to be an obstacle to closing failed banks and so may lead to the agency problems, including costly forbearance.²² Consequently, many countries make provisions for the government (preferably through the ministry of finance rather than the central bank) to assist a depleted fund with loans. While 66 of the 68 systems have private funding, 53 DIS have access to public funding. Some have already received financial help from official sources to get the system started or when it faced a systemic crisis; others expect to obtain it when they need assistance (Table 7). To contain moral hazard among bankers, it is important that banks be required to repay their loans, including those from the government.

The Canadian government goes further in requiring that the Canadian Deposit Insurance Corporation (CDIC) pay a "credit enhancement fee" to the government when it borrows funds in the private markets. The rationale is that, as a Crown Corporation, the CDIC can borrow at a lower rate than it would if it were a private corporation. The fee covers the difference. Moreover, when the CDIC borrows from the government, it pays a private market rate.

There is a potential for conflicts of interest when the DIS's board of directors is comprised of practicing bankers. The conflict can be countered by having the DIS be privately funded with no recourse to the government. It can also be combated by requiring the DIA to repay its loans, including those from the government, and to pay a market interest rate on the loans and a market price for any credit enhancement it receives. Otherwise, bankers may be tempted to underfund their DIS in the expectation that the government will provide assistance when the DIS fund needs additional money. Moreover, even in the apparent absence of

²²The best known example of an insolvent insurance scheme is perhaps the Federal Savings and Loan Insurance Corporation in the United States, which practiced forbearance for a number of years with costly consequences for U.S. taxpayers.

recourse to the government, the government's reaction function may suffer from time-inconsistency in being unable to honor its precommitment not to aid an ailing DIS.²³

In fact, best practices suggest that the government should provide back-up funding. Consequently, leaving financial decisions to a board of bankers is likely to result in an under-funded scheme. Bankers can form a consultative committee to advise the board, however. There is a wide dispersion in arrangements regarding the running of the DIS. Thirteen schemes are privately administered, 34 are run by the government, and 23 are jointly operated (Table 7). The authorities are able to exert some influence over some privately run schemes, such as those in Argentina and Brazil, however.

The danger of banks providing insufficient private resources to maintain the solvency of the fund when they run a DIS, as they hope to be subsidized by a government, appears to be a reality in more than half of the DIS surveyed. Table 7 shows that 5 of the 13 privately run DIS and 19 of the 23 jointly run systems have financial backing from the government. On the other hand, 8 privately run schemes and 5 jointly operated DIS have attempted to avoid this particular agency problem by refraining from providing government financial support. In some cases, the law is silent on the subject of funding; in others, government financial backing is explicitly foresworn. However, whether those governments that have made a precommitment not to fund the DIS can sustain this commitment in face of an underfunded DIS remains to be seen.

E. Role and Objectives

The role and objectives of the DIS agency can either be broadly or narrowly construed. Under a narrow interpretation, the DIS takes a passive role and merely manages the fund and pays out the funds that are due to depositors. This limited role is more likely for privately run DIS that lack governmental authority for more proactive responsibilities. With a broader mandate, it would take a more active role and also act as the receiver of banks whose licenses have been withdrawn, determine the method of their resolution, undertake their sale, recapitalization, or liquidation, and dispose of the remaining failed bank assets. With a broader mandate, the DIA would also proactively seek to minimize its exposure to loss.²⁴ The survey has not explored these differences in role. However, in their discussion of DIS in Latin American countries, Arzbach and Duran (1999) point to a trend toward giving DIA broader powers and wider responsibilities, including bank liquidation and restructuring.

²³Kydland and Prescott (1977) discuss time-inconsistency in policymaking.

²⁴Some DIAs chose to rehabilitate failed banks with loans and/or capital injections. The advantages and disadvantages of this approach are beyond the scope of this paper, but see Enoch and Garcia (1999).

Organizational structure

The DIS should be independent from political interference and industry domination; however, it should be accountable for its actions, especially its mistakes. Accountability can be achieved by having the DIS issue an annual report to the public, having its financial statements independently audited, and by requiring it to report periodically to parliament. Achieving the balance between independence and accountability will require a careful consideration of the particular political and institutional arrangements in place when a country designs its scheme.

In small countries with limited financial expertise, the deposit insurer may be a separate department of the central bank, which may also contain the supervisory agency. There is a danger, however, in having separate departments of the central bank administer the DIS and act as supervisor, even if these functions are housed in separate departments of the central bank. The central bank may have difficulty in separating its responsibilities as guardian of monetary policy and lender of last resort from those of supervising banks and running the DIS. Moreover, the objectives of the three entities may conflict. For example, by relying on its priority as a collateralized lender over the assets of the failed bank, the last-resort lender may be too ready to provide liquidity assistance to a troubled bank because it is sure of getting its money back. But in being overly willing to provide liquidity assistance to prevent the bank from failing, it frequently imposes additional losses on the DIS.²⁵ On the other hand, where it is less assured of being made whole, it may be unwilling to provide needed liquidity assistance even when appropriate. Similarly, the responsibilities of the supervisor may sometimes conflict with those of the DIS, so there can be advantages to housing them in separate agencies.

Seventeen of the 36 countries that responded to the follow-up inquiry reported in Table 6—the DIS constitutes a separate, independent legal entity. Nevertheless, in a number of instances, it was, either in law or in practice, under the control of a government agency, which is usually the central bank or the ministry of finance, but is sometimes the bank supervisor. The DIS was found to be subordinate to the central bank in 11 countries, to the MOF in 8 countries, and under the supervisory agency in five instances. Even so, it would not be expected to have the power to grant or withdraw bank licenses, to supervise, or to provide lender-of-last-resort credit to failing banks.

Cooperation and information sharing

Whatever the legal status of the DIA, it will need to have close and cooperative working relations that allow for the sharing of information with the bank supervisor and with the last-resort lender. Table 6 shows that 20 of the 36 responding countries reported information sharing among these parties. But it remained unclear how effective is the

²⁵Congressional staff found that 90 percent of the extended credit granted by the Federal Reserve as lender of last resort went to banks that subsequently failed (U.S. House of Representatives, 1991, p. 94).

exchange of data. For example, two of the countries commented that exchanging information was difficult.

If the information on which the supervisors rely when considering disciplining or closing a bank is insufficient, appropriate actions will not be taken. If the information that is released to the public is inadequate or misleading, market discipline is lost. Moreover, if the public does not know the condition of the banking industry, it cannot press the supervisor to close failed banks promptly in order to reduce the potential burden on the DIS fund and, ultimately, on the taxpayer. A DIS that faces such problems is unlikely to strengthen the financial system and can contribute to weakening it. While the survey throws only a glimpse of light on the complicated question of information availability and dissemination, the results of the Basle Committee's efforts are leading to improvements in supervisory standards, and to enhanced cooperation and information sharing among international regulators. Nevertheless, much still remains to be done to provide supervisors and the public with accurate and timely information.

IV. TRENDS AND CONVERGENCE TO BEST PRACTICE

A number of major changes in DIS practices can be observed in comparison to the earlier surveys of Kyei (1995) and Lindgren and Garcia (1996). A summary comparison between the present survey and that of Kyei (1995) is presented in Table 8. It shows, first, there are many more (68) explicit DIS in 1999 than there were in 1995, since 20 of the countries listed in Kyei (1995) as having implicit schemes have replaced them with formal, explicit schemes in a major shift toward following best practices. In addition, two other countries that were not surveyed by Kyei have also recently put in place explicit DIS.

The increase in formal DIS has been marked in Europe where the number has risen from 23 in 1995 to 32 in 1999. There had been no increase in the number (4) of DIS in Africa until 1999 when 6 additional countries decided jointly to install explicit DIS. There has also been some growth in DIS in the Middle East and the Americas. In the Western Hemisphere, a number of additional countries are planning to introduce formal DIS to replace their implicit systems, but the initiation of some schemes may be delayed by the adverse economic conditions that have recently arisen following the financial crises that began in Asia and then spread to other parts of the globe. The introduction of new DIS may be expected in Asia as countries recover from their financial crises and plan to replace the full guarantees they have put in place with limited coverage.

Second, more countries—almost one-third of the total—now risk-adjust their DIS premiums. Only two countries (other than the United States' protectorates in Asia) were identified in Kyei (1995) as adjusting their insurance premiums for risk. The increase in risk-adjusting countries has occurred in Africa, Europe, and the Americas. In addition, two other countries in the Western Hemisphere plan to risk-adjust their premiums in the near future. Assuming that the risk-adjustment is being well-executed, this change constitutes a substantial shift toward best practices.

Third, there is a shift away from voluntary DIS to compulsory schemes. Today, 81 percent of DIS seek to avoid adverse selection in this way, whereas only just over half did so in the mid-1990s. The switch has occurred not only in Europe, as a result of the 1994 European Union (EU) Directive on Deposit Guarantee Schemes, but the trend has also been noticeable in the Middle East and in the Americas. While the new schemes begun in 1999 in Africa are voluntary, they attempt to combat adverse selection by risk-adjusting premiums.

Fourth, there has also been a trend toward funded DIS. While countries are not switching from ex post levies to maintaining a DIS fund, newly created DIS have almost universally been funded systems. (Gibraltar's new scheme is the exception in that it follows the ex post practice of the United Kingdom.) Funded schemes are universal in Africa and Asia and have increased elsewhere to reach 80 percent worldwide. Schemes that maintain a fund have been observed above to be more rule-based and less ambiguous in practice than the ex post DIS favored by bankers' clubs. In this respect, the recent emphasis on funded DIS is another example of convergence toward best practices.

Fifth, while most DIS continue to be funded primarily by their member institutions, an increasing proportion of DIS have access to back-up funding from the government, as recommended in Table 1. In 1999, over three-quarters of DIS have received or can expect to receive government assistance when necessary. There has been a small commensurate shift from—45 percent to 50 percent—in favor of public administration of DIS. This shift is to be expected as government funding is likely to be accompanied by government control.

There is also an increasing standardization of practices with regard to DIS coverage as a result of an EU Directive, particularly among those countries that are, or aspire to be, members of the European Union (EU). In the interests of competitive equity among banks from different countries, the EU directive diverges from best practices in one respect, however. By requiring the same coverage limit (ecu 20,000 by year 2000) in all member countries, it provides low per capita coverage in rich countries but a higher ratio in poorer countries within the EU, which might, as a result, be more exposed to moral hazard.²⁶ However, the mandatory coverage is so low in rich countries that it remains relatively low even in less affluent EU countries, so that moral hazard from this source is unlikely to be a serious problem. In fact, the correlation coefficient between per capita GDP and the coverage ratio is insignificantly different from zero among member countries of the European Union, suggesting that moral hazard is not a problem there. Nevertheless, it could be a problem for countries outside the EU that aspire to join the Union and so emulate the EU's DIS coverage even when it is many times their per capita GDP.

Worldwide, there is a small but statistically significant negative relationship between per capita GDP and the DIS coverage ratio. The interpretation of this result is that poorer

²⁶Ecu 20,000 is 0.4 times per capita GDP in Luxembourg, which had the highest per capital GDP in the EU in 1997, but more than twice per capita GDP in Portugal, which had the lowest per capita GDP in the EU in 1997.

countries, on average, offer higher coverage in relation to GDP than do richer countries. The inverse relationship is evident in all regions except Europe, but is particularly strong in Africa (see Table 5). This result indicates that moral hazard is present worldwide, but is stronger in developing countries than in Europe.

Almost all countries now provide coverage per depositor, rather than per deposit, which tends to lower the effective coverage ratio. The reduction in the number of per-deposit coverage noted in 1996 survey has continued so that by 1999, the number had been reduced further to only two countries. A large increase in the restriction of DIS to household and nonprofit organizations is observable. Such restrictions have been adopted by one-quarter of countries, whereas only 13 percent did so in 1995. There has also been a substantial increase (from 45 percent to 66 percent) in the number of DIS that exclude interbank deposits from coverage. The change occurred in both Europe, where the EU Directive lists interbank deposits as a candidate for exclusion, and also in the Americas. There has also, perhaps surprisingly in light of the recent currency crises, been a trend—apparent on all continents—toward excluding foreign currency deposits from coverage. In 1999, 40 percent of countries excluded all or some deposits denominated in foreign currency.

V. SUMMARY AND CONCLUSIONS

While banks are important to the economy, they are vulnerable to illiquidity and insolvency. For these reasons, most governments have chosen to implement a financial safety net to deal with these contingencies. A system of depositor protection that guards the holders of small deposits when their bank fails has in recent years become part of this safety net in a growing number of countries. A well-designed DIS can strengthen incentives for good governance for banks (via strong internal governance from owners and managers, firm discipline from the markets, and effective oversight from bank regulation and supervision), but a poorly designed system will impair all of these three strands of governance and lead to a deterioration in the soundness of the banking system. Consequently, an important lesson to be learned from country experiences is that good design and suitable timing are essential.

A DIS with a weak incentive structure will not necessarily become insolvent. It may be able to impose higher premiums on all participants to remain viable. But higher premiums have adverse consequences for the banking system and the economy. Alternatively, supervisors may impose and enforce additional regulations to counter incentive deficiencies, but doing so will add to the regulatory burden and the costs that banks face. In short, there is a trade-off between good incentives and greater regulation and a higher cost structure for the banking industry. This paper suggests some considerations that can be borne in mind when constructing or reforming a DIS, so that the country can obtain the benefits of a DIS and avoid its pitfalls, including that of excessive reliance on regulation.

Experience has taught that a DIS faces problems of providing incentive compatibility for owners, managers, depositors, borrowers, regulators, and politicians. A well-designed DIS needs to build good incentives for all of these groups. It can, for instance, promote good

internal governance by forcing the closure of critically under capitalized institutions, making membership compulsory, and charging risk-adjusted premiums. It can encourage sophisticated creditors to exert market discipline by providing only low coverage and disclosing good information about the condition of individual banks. The DIS and the supervisory authority should both be politically independent to limit politicians' encouragement for forbearance and mitigate regulatory capture. Nevertheless, both authorities need to be held accountable to avoid industry domination, and to ensure that their actions serve the public interest. While progress is being made in emulating best practices, there is still work to be done to achieve them.

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Table 3. Depositor Protection Schemes in 1999:
Membership and Types of Deposits Covered

Department Country or Province	Membership		Types of Deposits Covered	Excludes Foreign Currency Deposits	Excludes Interbank Deposits	Household Deposits Only *
	Date Enacted/ Revised	Compulsory					Voluntary
AFRICA						
Cameroon	1999 1/		x	most	x	
Central African Republic	1999 1/		x	most	x	
Chad	1999 1/		x	most	x	
Congo, Republic	1999 1/		x	most	x	
Equatorial Guinea	1999 1/		x	most	x	
Gabon	1999 1/		x	most	x	
Kenya	1985	x		all		
Nigeria	1988/9	x		most 2/	x	
Tanzania	1994	x			x	x
Uganda	1994	x			x	x
ASIA						
Bangladesh	1984	x		3/	x	x
India	1961	x		most 4/		x
Japan	1971	x		5/	x 5/	x 5/
Korea	1996	x		all/most 6/	x 6/	x 6/
Marshall Is.	1975		x	all 7/		
Micronesia	1963		x	all		
Philippines	1963	x		all		
Sri Lanka	1987		x	8/	x	
Taiwan Province of China	1985	proposed	x		x	x
EUROPE						
Austria	1979/96	x		9/	**	x
Belgium	1974/95	x		10/	**	x
Bulgaria	1995	x		11/		x
Croatia	1997	x			12/	x

Table 3. Depositor Protection Schemes in 1999:
Membership and Types of Deposits Covered

Department Country or Province	Membership		Types of Deposits Covered	Excludes Foreign Currency Deposits	Excludes Interbank Deposits	Household Deposits Only *
	Date Enacted/ Revised	Compulsory					Voluntary
Czech Republic	1994	x	most	x	x	
Denmark	1988/98	x	most		x	
Estonia	1998	x	13/		x	
Finland	1969/92/98	x	most 14/		x	
France	1980/95	x	15/	**	x	
Germany	1966/76/98	x	x	most 16/		x
Gibraltar	1998	x	most 17/	***	...	
Greece	1993/95	x	most 18/		x	
Hungary	1993	x	most 19/		x	
Iceland	1985/96	x	most 20/		x	
Ireland	1989/95	x	most 21/	***	x	
Italy	1987/96	x	most 22/		x	
Latvia	1998	x	23/			x
Lithuania	1996	x	24/	***		x
Luxembourg	1989	x	most		x	
Macedonia	1996		x	25/	x	x
Netherlands	1979/95	x	26/		x	x 25/
Norway	1961/97	x	most 27/		x	
Poland	1995	x	most 28/		x	
Portugal	1992/95	x	most 29/		x	
Romania	1996	x	most 30/		x	x
Slovak Republic	1996	x	31/		x	x
Spain 31/	1977/96	x	most 32/		x	
Sweden 33/	1996	x	most		x	
Switzerland	1984/93		x	savings	x	x
Turkey	1983	x	34/		x	x
Ukraine	1998	x	35/		x	x

Table 3. Depositor Protection Schemes in 1999:
Membership and Types of Deposits Covered

Department Country or Province	Membership		Types of Deposits Covered	Excludes Foreign Currency Deposits	Excludes Interbank Deposits	Household Deposits Only *
	Date Enacted/ Revised	Compulsory Voluntary				
United Kingdom	1982/95	x	most 36/	***	x	
MIDDLE EAST						
Bahrain	1993	x	most 37/		x	
Kuwait 38/	...	implicit	...	all		
Lebanon	1967	x	most 39/	x 39/		
Oman	1995	x	most 40/		x	
WESTERN HEMISPHERE						
Argentina	1971/95	x	most		x	
Bolivia	1999	under preparation				
Brazil	1995	x	most 41/		x	
Canada	1967	x	most 42/	x		
Chile	1986	x	43/		x	x: savings and time
Colombia	1985	x	most	x		
Costa Rica 44/		explicit scheme under discussion		state bank deposits		
Dominican Republic	1962		x	only savings associations 45/	x	x: savings and time
Ecuador	1999	x	all 46/			
El Salvador	1999	x	most 47/		x	
Honduras	1995 48/	not developed				
Jamaica	1998 49/	x	most		x	
Mexico	1986/90	x	all 50/			
Peru	1992	x	51/			x
Trinidad & Tobago	1986	x	all 52/			
United States	1934/91	x 53/	all domestic 53/			
Venezuela	1985	x	most	x	x	

Table 3. Depositor Protection Schemes in 1999:
Membership and Types of Deposits Covered

Department Country or Province	Membership			Types of Deposits Covered	Excludes Foreign Currency Deposits	Excludes Interbank Deposits	Household Deposits Only *
	Date Enacted/ Revised	Compulsory	Voluntary				
NUMBER OF COUNTRIES: 72	explicit in 68 countries	55 schemes	14 schemes	all: 10 most: 36	all: 20 some: 7	45	16

Source: Information provided by country authorities, IMF desk officers, and MAE staff.

Notes: ... Information is not available.

* Indicates that only individual or household deposits are covered.

** Coverage is extended to deposits in the domestic currency, ecus or the currencies of other members of the EU.

*** Coverage is extended to deposits in sterling, ecus or the currencies of other members of the European Economic Area (which includes the EU).

- 1/ The format for sharing in the establishment of a DIS has been adopted by six central African countries which share a central bank (Cameroon, Central African Republic, Chad, Republic of Congo, Equatorial Guinea, and Gabon). The treaty that embodies the DIS is to be ratified in April 1999.
- 2/ All domestic-currency deposits in licensed banks in Nigeria are covered except those of directors and staff, as well as deposits that serve as collateral for a loan.
- 3/ Bangladesh does not insure domestic and foreign government, interbank, or financial institution deposits.
- 4/ India insures deposits in commercial, cooperative, and rural banks, except certificates of deposits, government, interbank, and illegal deposits.
- 5/ Japan has two DIS. The first covers, commercial and shrinking banks, credit cooperatives, and labor and credit associations. It normally insures demand and time deposits in domestic currency, including installment savings and money in trust whose principal has been guaranteed but the authorities have extended a temporary full guarantee. The second scheme covers agricultural and fishery cooperatives.
- 6/ Korea has placed a temporary full guarantee on deposits.
- 7/ Two U.S. banks are insured by the FDIC, but the domestic bank is not covered.
- 8/ Sri Lanka excludes government, public corporation, and other banks' deposits from coverage.
- 9/ Austria excludes government, large corporation, insider and criminal deposits, but insures the deposits of natural persons in full, up to the coverage limit, while coverage for other non-household deposits is limited to 90 percent of the guaranteed deposit.
- 10/ Belgium covers the deposits, bank notes, bonds and other claims on banks of households, and small and medium-sized nonfinancial enterprises.
- 11/ Bulgaria excludes insider deposits and those paying preferential interest rates.
- 12/ Croatia excludes foreign currency deposits placed prior to 1993 as they were covered by an issuance of government bonds.
- 13/ Estonia excludes the deposits of insiders, money-launderers, governments at all levels, larger businesses, financial institution including insurance companies, other members of the same corporate group, and those that pay "substantially higher rates."
- 14/ In its new system that replaces its comprehensive guarantee, Finland will exclude the deposits of the central government and credit institutions.
- 15/ France has separate schemes for commercial banks and for mutual, savings and cooperative banks. Coverage excludes deposits of the central government, insiders, affiliated enterprises, and money-launderers' deposits, together with the debt securities issued by the insured institution.
- 16/ Germany insures all deposits except interbank and insider deposits. There are separate private schemes for commercial banks, savings banks, giro institutions, and credit cooperatives. Since August 1998 there has been in place an official compulsory scheme for commercial banks.
- 17/ The scheme in Gibraltar has been enacted but will not come into effect until the second part of the regulation is promulgated.
- 18/ Greece excludes interbank, insider, central government, and illegal deposits.
- 19/ Hungary insures registered deposits but excludes the deposits of the government, insiders, professional investors, and money launderers.
- 20/ Iceland covers all liabilities, except interbank and money-laundered deposits, accounts of subsidiaries and parent companies and bonds, bankers' drafts, and other claims issued by the insured institution in the form of transferable securities.
- 21/ Ireland does not insure certificates of deposit, the deposits of major owners and senior managers, or those involved in money laundering.
- 22/ Italy insures all deposits except bearer deposits, criminal, government, insider, and interbank deposits under two separate DIS systems, one for banks and the other for cooperative institutions.
- 23/ The deposit insurance law in Latvia was enacted in May 1998 and was to come into effect on October 1, 1998. It will not cover insider deposits or accounts in banks already declared bankrupt or insolvent or having entered liquidation proceedings.
- 24/ The deposit protection scheme in Lithuania excludes anonymous, illegal, and insider deposits and interest.
- 25/ Macedonia guarantees the current account and savings deposits of natural persons that are denominated in dinars and foreign currencies.
- 26/ The Netherlands excludes the deposits of large corporations, other banks, insurance companies, and insiders, but covers those of small enterprises and small foundations, in addition to those of households.
- 27/ Norway has two separate deposit insurance funds—one for commercial banks and the other for savings banks. Deposits by all financial institutions and other companies in the same group as the member are excluded.
- 28/ Poland does not guarantee the deposits of a bank's significant stockholders, directors, or senior managers, the deposits of the Treasury, investment firms, or insurance companies.

- 29/ Portugal guarantees demand, time, and foreign currency deposits, but not those of insiders or criminals, financial institutions, or central and local governments.
- 30/ Romania excludes insider deposits from coverage.
- 31/ The Slovak Republic does not protect anonymous deposits or those of owners, directors and senior managers.
- 32/ There are three separate DIS in Spain: one for commercial banks, a second for savings banks, and the third for credit cooperatives. The deposits of financial institutions, public bodies, and insiders are not covered.
- 33/ Before its banking crisis, Sweden did not have a system of depositor protection. It introduced a temporary guarantee of all bank liabilities in 1992, and replaced it with a formal system of deposit insurance to conform to EU standards in January 1996 for all banks and investment firms that receive deposits.
- 34/ Turkey insured savings deposits and CDS denominated in Turkish lira, and also the savings accounts of real persons domiciled in Turkey that are denominated in foreign exchange. In 1994, a guarantee was extended by decree to all deposits.
- 35/ Ukraine does not cover the deposits of insiders or their families.
- 36/ The United Kingdom does not cover the deposits of financial institutions.
- 37/ Bahrain ensures all deposits held in the Bahraini offices of full commercial banks, except government, illegal, and interbank deposits, and those held by affiliates, shareholders, directors and officers of the bank.
- 38/ Kuwait has no explicit system of deposit insurance, but the government guarantees all deposits.
- 39/ Lebanon ensures all Lebanese pound denominated deposits, except those of senior insiders, and auditors. Under a transitory law passed in 1991, which was due to expire at end 1998, deposits denominated in foreign currency are also insured.
- 40/ Oman excludes deposits of significant shareholders, directors and senior managers, illegal deposits and the deposits of auditors, parent, subsidiary and affiliated companies.
- 41/ Brazil does not insure the deposits of connected parties.
- 42/ Insured deposits in Canada include: savings and demand deposits; term deposits such as guaranteed investment certificates and debentures issued by loan companies; money orders and drafts and checks; and traveler's checks issued by member institutions.
- 43/ In Chile, the central bank guarantees demand deposits. The government guarantees 90 percent of household savings and time deposits to a limit of UF 120 per person per year, that is, 120 inflation-adjusted units of Chilean currency.
- 44/ Article 4 of the Banking Law in Costa Rica states that state-owned banks can count on a guarantee from the government. The public has interpreted this article as providing unlimited deposit protection at state-owned banks.
- 45/ The Dominican Republic has explicit deposit insurance only for savings and loan associations.
- 46/ Ecuador expects to have enough funds accumulated to compensate depositors of a failed bank within two years. It does not cover the deposits of owners, current or recent directors or managers.
- 47/ El Salvador is implementing a new DIS that covers all deposits, except interbank and insider deposits.
- 48/ The banking law in Honduras mentions that a deposit insurance law would be passed but no draft has been presented to Parliament.
- 49/ The deposit insurance law in Jamaica was passed by Parliament in March 1998 and was scheduled to be implemented on August 31, 1998.
- 50/ Mexico does not impose an obligation on its insurance agency to guarantee deposits, but each December, the agency announces what instruments it will cover. In 1997, it stated that it would cover all liabilities of commercial banks except subordinated debt. Also excluded are illicit transactions, interbank credits through the Bank of Mexico's transfer systems, and obligations of intermediaries that are part of the bank's financial group.
- 51/ Peru ensures all types of deposits, except bearer certificates, for natural persons and nonprofit organization.
- 52/ Trinidad and Tobago insures demand, savings, and time deposits.
- 53/ Deposit insurance in the United States is compulsory for nationally chartered and for almost all state-chartered banks and thrifts. Deposits booked off-shore are not covered.

Table 4. Explicit Schemes in 1999: Funding, Coverage and Premiums

Continent, Country or Province	Funding		Premium or Assessment Base	Annual Premium % of base	Coverage in ecu or U.S. dollars 1/	Per Depositor
	Has a Fund	Unfunded *				
AFRICA						
Cameroon	x		deposits and nonperforming loans	risk-based: 0.15% deposits + 0.5% net npls	\$5,336	x
Central African Republic	x		deposits and nonperforming loans	risk-based: 0.15% deposits + 0.5% net npls	\$3,557	x
Chad	x		deposits and nonperforming loans	risk-based: 0.15% deposits + 0.5% net npls	\$3,557	x
Congo, Republic	x		deposits and nonperforming loans	risk-based: 0.15% deposits + 0.5% net npls	\$3,557	x
Equatorial Guinea	x		deposits and nonperforming loans	risk-based: 0.15% deposits + 0.5% net npls	\$3,557	x
Gabon	x		deposits and nonperforming loans	risk-based: 0.15% deposits + 0.5% net npls	\$5,336	x
Kenya	x		deposits	0.15	\$1,750	x
Nigeria	x		deposits	0.9375	\$588/\$2,435 2/	x
Tanzania	x		deposits	0.1	\$376	x
Uganda	x		deposits	0.2	\$2,310	x
ASIA						
Bangladesh	x		deposits	0.005	\$2,123	x
India	x		deposits	0.05	\$2,355	x
Japan	x		insured deposits	0.048 + 0.036	\$71,000, but in full until March 2001 3/	x
Korea	x		deposits	0.05	\$14,600, but in full until the year 2,000	x
Marshall Islands	x		deposits	risk-based: 0.00 to 0.27	\$100,000	x
Micronesia	x		deposits	risk-based: 0.00 to 0.27	\$100,000	x
Philippines	x		deposits	0.2	\$2,375	per deposit
Sri Lanka	x		deposits	0.15	\$1,470	x

Table 4. Explicit Schemes in 1999: Funding, Coverage and Premiums

Continent, Country or Province	Funding		Premium or Assessment Base	Annual Premium % of base	Coverage in ecu or U.S. dollars 1/	Per Depositor
	Has a Fund	Unfunded *				
Taiwan Province of China	x		insured deposits	0.015	\$38,500	x
EUROPE						
Austria		x	insured deposits	pro rata, ex post	\$24,075 but coinsurance for businesses	x
Belgium	x		insured liabilities	0.02 + 0.04 4/	ecu 15,000 20,000 in year 2,000	x
Bulgaria	x		insured deposits	risk-based to 0.5 5/	\$1,784	x
Croatia	x		insured deposits	0.8	\$15,300	x
Czech Republic	x		insured deposits	commercial banks: 0.5 savings banks: 0.1	coinsurance to \$11,756	x
Denmark	x		insured deposits	0.2 (max)	ecu 20,000	x
Estonia	x		deposits until 2002	0.5% (max)	coinsure 90% of \$1,383, but ecu 20,000 in 2010	x
Finland	x		insured deposits	risk-based: 0.05 to 0.3	\$29,435	x
France		x	...	on demand, but limited	\$65,387	x
Germany	x		insured deposits in commercial bank DIS; risk-assets in other DIS	official is 0.03 but can be doubled 6/	private: 30% of capital; 7/ official coinsurance 90% to ecu 20,000	x
Gibraltar	only for admin.	x	insured deposits	admin. expenses; and ex post	lesser of 90% coinsurance or ecu 20,000	x
Greece	x		deposits	decreasing by size: 0.025 to 1.25 8/	ecu 20,000	x
Hungary	x		insured deposits	risk-based to 0.3	ecu 4,165 or \$4,564	x
Iceland	x		insured deposits	0.15	ecu 20,000 9/	x
Ireland	x		EU and EEA, i.e insured deposits	0.2	coinsure 90% to ecu 15,000	x
Italy		x	protected funds adjusted for size and risk	risk-adjusted ex post 0.4 to 0.8	\$125,000	x
Latvia	x		insured deposits	0.3	\$830 until year 2,000 10/	x

Table 4. Explicit Schemes in 1999: Funding, Coverage and Premiums

Continent, Country or Province	Funding		Premium or Assessment Base	Annual Premium % of base	Coverage in ecu or U.S. dollars 1/	Per Depositor
	Has a Fund	Unfunded *				
Lithuania	x		insured deposits	1.5	\$6,250, then coinsurance	x
Luxembourg		x	insured deposits	ex post	coinsure 90% to ecu 15,000 thru 1999, then to ecu 20,000	x
Macedonia	x		insured deposits	1.5%; risk-based 1% to 5%	coinsure 75% to \$183	x
Netherlands		x	case by case 11/	ex post	ecu 20,000	x
Norway	x		risk-weighted assets and total deposits	0.005 assets 0.01 deposits	\$260,800	x
Poland	x		deposits, also risk- adjusted assets 12/	not more than 0.4 13/	ecu 1,000, then 90% coinsurance for the next ecu 4,000	x
Portugal	x		insured deposits	risk-based 0.08 to 0.12 + more in emergencies	ecu 15,000, coinsurance to ecu 45,000	x
Romania	x		insured deposits	risk-based 0.3 to 0.6 14/	\$3,600 14/	x
Slovak Republic	x		insured deposits	0.1 to 0.3 for banks 15/	\$7,900 15/	x
Spain	x		insured deposits	max. of 0.2	ecu 15,000 through 1999, then ecu 20,000	x
Sweden	x		insured deposits	risk-based, 0.5 now, 0.1 later	ecu 28,663 \$31,412 16/	x
Switzerland		x	balance sheet items	on demand	\$19,700	x
Turkey	x		insured savings deposits	risk-based, 1.0 to 1.2	in full 17/	x
Ukraine	x		total deposits	0.5 plus special charges	\$250 18/	x
United Kingdom	small (£5m to £6m)	mainly ex post assessment	EEA deposits i.e insured deposits	on demand	larger of 90% coinsurance to \$33,333 or ecu 22,222	x
MIDDLE EAST						
Bahrain		x	deposits	ex post	\$5,640 19/	x
Lebanon	x		credit accounts	0.05 20/	\$3,300	x
Oman	x		deposits	0.02	coinsurance 75% to \$52,630	x

Table 4. Explicit Schemes in 1999: Funding, Coverage and Premiums

Continent, Country or Province	Funding		Premium or Assessment Base	Annual Premium % of base	Coverage in ecu or U.S. dollars 1/	Per Depositor
	Has a Fund	Unfunded *				
WEST HEMISPHERE						
Argentina	x		insured deposits	risk-based 0.36 to 0.72	\$30,000 21/	x
Brazil	x		insured deposits	0.3	\$17,000	x
Canada	x		insured deposits	0.33 max 22/	\$40,770 22/	x
Chile		government	not applicable	none 23/	demand deposits in full and 90% coinsurance to UF 120 or \$3,600 for savings deposits 23/	x for total savings deposits in the system
Colombia	x		insured deposits	0.3 24/	in full until 2001, then coinsure 75% to \$5,500	x
Dominican Republic	x		deposits	0.1875	coinsurance to \$13,000	per deposit
Ecuador	x		deposits	0.65	in full to year 2001	x
El Salvador	x		insured deposits	risk-based 0.1 to 0.3	\$4,720	x
Jamaica	x		insured deposits	0.1	\$5,512	x
Mexico	x		all obligations	0.3 (max. 0.5) plus 0.7 as needed	in full, except subordinated debt, until 2005 25/	x
Peru	x		insured deposits	risk-based from 0.65 to 1.45 26/	\$21,160	x
Trinidad and Tobago	x		deposits	0.2	\$7,957	x
United States	x		domestic deposits	risk-based; 0.00 to 0.27	\$100,000	x
Venezuela	x		insured deposits	2.0 27/	\$7,309 27/	x
NUMBER OF COUNTRIES 68	58	9 ex post assessments	deposits: 27 insured deposits: 34	0.0 to 2.5 21 risk-based 58 premiums	62 limited 6 full 16 coinsure	66

Source: Information provided by country authorities, IMF desk officers, and MAE staff.

Notes: In the third column, an "x" represents an ex post levy on banks, and "government" indicates that the government pays.
... means data are not available.

1/ Exchange rates at the end of June 1998.

2/ Coverage in Nigeria is higher at the official exchange rate than at the market rate.

3/ Japan will provide full coverage as an emergency measure until March 31, 2001.

4/ The premium in Belgium can be raised by a maximum of 0.04 percent when the funds' liquid assets fall below a critical level.

- 5/ The Bulgarian fund can request an advance premium of 1.5 percent of the deposit base if it has insufficient resources.
- 6/ The premium charged by the private deposit insurance schemes in Germany vary by scheme from 0.004 percent to 0.1 percent.
- 7/ Coverage of the private scheme for commercial banks in Germany is limited to 90 percent and ecu 20,000. The private schemes for savings banks and credit cooperatives protect deposits by securing the solvency of the institutions as a whole.
- 8/ If the Greek system has insufficient funds, members may be called upon to pay no more than 300 percent of the previous year's contribution in anticipation of future premiums.
- 9/ Coverage in Iceland in principle is full. The minimum is ecu 20,000. Above that, payment is in proportion to the resources of the fund.
- 10/ Coverage in Latvia will rise gradually to ecu 20,000 by the year 2008.
- 11/ In the Netherlands, the ex post assessments are made case-by-case on the bases of several items of data recently reported to the central bank. A comparison is made between the portfolios of the failed bank and the assessed bank. Costs are apportioned after consultation with the bankers' committee.
- 12/ Article 25 of the deposit insurance law in Poland sets premiums at no more than 0.4 percent of deposits. However, Article 13 states that premiums should not "exceed 0.4 percent of the sum of assets rated according to risk."
- 13/ The National Savings Bank—a State Bank, the Polish Guardian Bank, the Food Management Bank and cooperative banks, whose deposits continue to be insured in full by the Treasury through 1999, will, however, pay at most 0.2 percent of insured deposits. The Treasury also insures some housing savings deposits.
- 14/ The coverage limit in Romania is adjusted each year for inflation. The premium range is between 0.3 percent and 0.6 percent of a natural person's deposits and varies in response to a complex formula that includes measures of solvency, profitability, liquidity, loan quality and exposure to risk.
- 15/ Building societies in the Slovak Republic pay premiums at half the commercial banks' rate. Coverage is adjusted periodically.
- 16/ Sweden provided full coverage during the banking crisis in 1992 and withdrew it in 1996.
- 17/ Turkey has provided unlimited coverage since May 1994.
- 18/ Coverage in the Ukraine will rise as deposit totals trend upwards.
- 19/ Bahrain covers 75 percent of deposits as long as the fund's total outlays in any year do not exceed US\$9.4 million, when coverage is determined on a pro rata basis.
- 20/ In Lebanon, the premium paid by the banks is matched by a contribution from the government.
- 21/ In Argentina, deposits that pay more than 200 basis points above the reference rate are not insured.
- 22/ A system of risk-based assessments is pending. Coverage in Canada is extended separately for retirement accounts and deposits held in trust, which are each additionally insured to Can\$60,000.
- 23/ To reduce central bank exposure, Chilean banks with demand deposits in excess of 2.5 times capital and reserves have to maintain a 100 percent marginal reserve requirement invested in short-term central bank or government securities that are liened to the central bank. The Chilean authorities regard the interest cost of maintaining the reserve requirement as imposing an implicit charge for deposit insurance coverage. The Chilean Central Bank guarantees demand deposits in full. Household savings and time deposits are co-insured 90% by the government to UF 120 (about \$3,675) per person per year.
- 24/ Premiums in Columbia will become risk-based in the year 2000.
- 25/ Each December in Mexico, FOBAPROA announces which commercial bank obligations it will protect. Coverage is now comprehensive, but there is a legislative proposal to limit coverage in the year 2005 to UDI 400,000 or \$96,000, where UDI are inflation-adjusted units of Mexican currency.
- 26/ The premium in Peru is computed to the maximum amount insured and applies only to deposits of individuals and nonprofit institutions. Banks pay 0.65 percent of total deposits plus 0.2 percent for each higher risk category.
- 27/ Venezuela raised the premium from 0.5 percent to 2.0 percent early in 1994 to help fund the heavy assistance to troubled banks. In 1994, Venezuela selectively paid more than the legally stated limit.

Table 5. Ratios of Deposit Coverage to per capita GDP in Selected Countries, 1999

	Coverage /1	GDP per capita /2	Ratio of deposit coverage
AFRICA			
Cameroon	\$ 5,336	\$ 600	8.9
Central African Republic	\$ 3,557	\$ 282	12.6
Chad	\$ 3,557	\$ 245	14.5
Republic of Congo	\$ 3,557	\$ 726	4.9
Equatorial Guinea	\$ 3,557	\$ 1,284	2.8
Gabon	\$ 5,336	\$ 4,024	1.3
Kenya	\$ 1,757	\$ 323	5.4
Nigeria	\$ 588	\$ 287	2.1
Tanzania	\$ 376	\$ 245	1.5
Uganda	\$ 2,310	\$ 280	8.2
ASIA			
Bangladesh	\$ 2,123	\$ 348	6.1
India	\$ 2,355	\$ 387	6.1
Philippines	\$ 2,375	\$ 880	2.7
Sri Lanka	\$ 1,470	\$ 825	1.8
Taiwan Province of China	\$ 38,500	\$ 11,633	3.3
EUROPE			
Austria	\$ 24,075	\$ 26,246	0.9
Belgium	\$ 16,439	\$ 24,947	0.7
Bulgaria	\$ 1,784	\$ 1,401	1.3
Croatia	\$ 15,300	\$ 4,688	3.3
Czech Republic	\$ 11,756	\$ 5,174	2.3
Denmark	\$ 21,918	\$ 33,307	0.7
Estonia	\$ 1,383	\$ 3,450	0.4
Finland	\$ 29,435	\$ 24,404	1.2
France	\$ 65,387	\$ 24,700	2.6
Germany	\$ 21,918	\$ 26,161	0.8
Greece	\$ 21,918	\$ 11,501	1.9
Hungary	\$ 4,564	\$ 4,631	1.0
Iceland	\$ 21,918	\$ 29,228	0.7
Ireland	\$ 16,439	\$ 21,788	0.8
Italy	\$ 125,000	\$ 20,633	6.1
Latvia	\$ 830	\$ 2,456	0.3
Lithuania	\$ 6,250	\$ 2,844	2.2
Luxembourg	\$ 16,439	\$ 39,233	0.4
Macedonia	\$ 183	\$ 1,480	0.1
Netherlands	\$ 21,918	\$ 24,143	0.9
Norway	\$ 260,800	\$ 32,986	7.9
Poland	\$ 1,096	\$ 3,896	0.3
Portugal	\$ 16,439	\$ 11,565	1.4
Romania	\$ 3,600	\$ 1,848	1.9
Slovak Republic	\$ 7,900	\$ 3,843	2.1
Spain	\$ 16,439	\$ 14,241	1.2
Sweden	\$ 31,412	\$ 25,743	1.2

Table 5. Ratios of Deposit Coverage to per capita GDP in Selected Countries, 1999

	Coverage /1	GDP per capita /2	Ratio of deposit coverage
Switzerland	\$ 19,700	\$ 36,840	0.5
Ukraine	\$ 250	\$ 837	0.3
United Kingdom	\$ 33,333	\$ 23,598	1.4
MIDDLE EAST			
Bahrain	\$ 5,640	\$ 8,383	0.7
Lebanon	\$ 3,300	\$ 5,145	0.6
Oman	\$ 52,630	\$ 5,986	8.8
WESTERN HEMISPHERE			
Argentina	\$ 30,000	\$ 9,649	3.1
Brazil	\$ 17,000	\$ 4,566	3.7
Canada	\$ 40,770	\$ 19,700	2.1
Chile	\$ 3,600	\$ 5,253	0.7
Colombia	\$ 5,500	\$ 2,430	2.3
Dominican Republic	\$ 13,000	\$ 1,919	6.8
El Salvador	\$ 4,720	\$ 1,915	2.5
Jamaica	\$ 5,512	\$ 2,876	1.9
Perú	\$ 21,160	\$ 2,485	8.5
Trinidad and Tobago	\$ 7,957	\$ 4,604	1.7
United States	\$ 100,000	\$ 31,433	3.2
Venezuela	\$ 7,309	\$ 3,910	1.9

Correlation
coefficient (Ratio and
GDP per capita)

Average for the WORLD /3 /4:	3.0	(0.29)
Average for AFRICA:	6.2	(0.44)
Average for ASIA:	4.0	(0.24)
Average for EUROPE:	1.6	0.12
Average for MIDDLE EAST:	3.4	(0.26)
Average for WESTERN HEMISPHERE:	3.2	(0.15)

Notes:

1/ At the end of June 1998 exchange rates.

2/ Data for 1998, World Economic Outlook (WEO).

3/ Data on GDP per capita for Gibraltar, Marshall Islands, and Micronesia are not available.

4/ Unlimited coverage for Ecuador, Japan, Korea, Turkey, and Mexico.

Table 6: Effective Coverage, Formal Relationships, Legal Priorities, and Fund Targets

Region, Country, or Province	Deposit Accounts Covered: %	Value of Deposits Covered %	Formal Relationship between DIA, BS, CB and MOF 1/	Information Sharing	Legal Priority for Depositors?	Fund Target % of Deposits	Actual Fund % of Deposits
AFRICA							
Kenya	83.3%	16%	Independent de jure, but in practice is under the CB. It works with BS.	Yes, receives on-and off-site reports	No	20% of insured deposits	5.3% insured deposits
Nigeria	78%	21%	Harmonious: with MOF which supervises the independent DIA and CB, which is also BS.	Yes, good	Yes, de jure	Not specified	...
Tanzania	54%	12%	Independent DIA depends on the examination reports of CB, which acts also as a BS.	Yes	No, de jure, at par with other creditors	3% of total deposits /2	2.7% of total deposits
Uganda	95%	26%	No separate DIA,; DIS is responsibility of CB, which is also BS.	N/A	Yes	No	Reported to be very low
ASIA							
Bangladesh	97%	34%	The DIA is a part of the central bank, and its finances are commingled.	Presumably	...	...	0.4% of insured deposits
India	90.4%	75.2%	DIA is a fully owned subsidiary of CB, of which BS is a also a part.	...	No, unsecured creditors	No	...
Japan	...	78.8% of deposits	DIA is funded by CB, and supervised by MOF.	...	No	No	Currently has a deficit
Sri Lanka	negligible	negligible	DIS is administered by the supervision department of the central bank	no problem	No	---	very low (80 mil. rupees)
Taiwan, Province of China	94%	45%	DIA established by MOF, which is the BS, in consultation with CB.	...	No	<5% of insured deposits	0.3% insured deposits
EUROPE							
Belgium	...	...	DIS is a responsibility of separate BS that may be transferred to CB.	Authorized	No	0.5% of insured deposits	0.25% insured deposits
Croatia	95%	68%	Independent de jure. Government officials are members of DIA Board.	Yes, informally, as needed	Yes, for insured deposits	5% of insured deposits	0.85% of insured deposits
Denmark	probably almost all.	less than 50%	DIA is under supervision of BS, but is located in the CB.	...	No	No	...
Estonia	...	1%	DIA is a separate legal entity that cooperates with the supervisor	Yes, by law	No	3% of insured deposits	new scheme
Finland	96% of the accounts	40%	DIA is supervised by BS authority and MOF; CB has no role.	...	No	2% of insured deposits	FIM 300 mln. or 0.14% of insured deposits
France	85-90%	low	DIA is not a separate legal entity: it is a responsibility of BS, part of CB.	Yes, but difficult	No	No, ex post financing	not applicable
Gibraltar	... /3	...	DIA independent de jure.	...	No	No	new scheme
Hungary	97% of the accounts	48%	DIA is a separate legal entity, but the State grants limited authority.	Yes, by formal agreement	Yes, for private person deposits	informally 1.5% insured deposits	1% of insured deposits
Italy	99.6%	83%	Closely knit, with BoI in charge of DIA and BS.	Yes, formal notification	No	0.4-0.8% of total deposits	0.4% of total deposits
Latvia	94.7% of personal deposits	18.7%	DIA is overseen by MOF: de jure relationship between DIA and CB.	...	Yes, de jure	Not specified	new scheme
Lithuania	98.8% of personal deposits	44% of total deposits	DIA established by MOF: 2 of 5 members are nominated by CB.	...	Yes, for insured deposits	No	...

Table 6: Effective Coverage, Formal Relationships, Legal Priorities, and Fund Targets

Region, Country, or Province	Deposit Accounts Covered: %	Value of Deposits Covered %	Formal Relationship between DIA, BS, CB and MOF 1/	Information Sharing	Legal Priority for Depositors?	Fund Target % of Deposits	Actual Fund % of Deposits
Macedonia	...	99% of deposits are in accounts covered by some insurance	DIS is a private share-holding company, overseen by the central bank.	Is inadequate: DIS is private company	Yes: for insured deposits	15% of insured deposits	1.4 % of insured deposits.
Norway	99.8%	76.1%	Two DIAs are separate legal entities approved by MOF. CB & BS. represented on the DIA's Board.	...	Yes, if bank is under public administration	1.5% deposits + 0.5% risk-adjusted assets.	...
Romania	96%	...	DIA is independent de jure, but CB, which is BS, approves Bye Laws.	Yes	No	10% of personal deposits	...
Slovakia	...	47%	DIA is independent de jure, but is supervised by the CB.	...	No	1.5% of insured deposits	0.47% insured deposits
Sweden	...	...	Small DIA is under MOF, consults with BS and shares its premises.	Yes	No	2.5% of total deposits	...
Turkey	100% real persons	100%	DIA managed and represented by CB, audited by the Treasury (BS).	Yes	Yes, de jure	No	5% of insured deposits
Ukraine	...	19%	The DIA is an independent organization run by the central bank	Yes, by law	...	...	10% insured deposits
UK	70% of claimants	...	DIA acts as a separate legal entity, staffed by BS. CB is responsible only for monetary policy issues.	...	Yes, as DIA has priority over recoveries	£5m-£6m for admin. expenses	< £3m
WESTERN HEMISPHERE							
Argentina	95%	40%	DIA is authorized by CB and led CB representatives, cooperates with BS.	Yes	Yes	5% of total deposits	0.35% of total deposits
Canada	~85-90%	39.9%	CB, BS and MOF ex-officio sit on the Board of the independent DIA.	Yes	No, unsecured creditors	No	C\$500m ~0.16%
Chile	94% of time deposits	9% of value of time deposits	No DIA, close relationship between CB and BS.	Yes, significant exchanges	Yes	No	...
Columbia	98%	34%	The DIS is owned by the government and under the control of the MOF.	Probably	...	...	...
Jamaica	90%	33.5%	DIA is a separate corporation that cooperates with the CB, which is also the BS.	Yes, by law	No	Not de jure: but admin target 1% insured deposits	new scheme
Mexico	100%	100%	DIA is a trust, constituted by Federal Government and administered by CB. BS, MOF, CB are represented on the DIA's technical committee.	...	Yes	No	...
Trinidad & Tobago	96.3%	34.1%	DIA is a separate legal entity, but CB and MOF set the Bye Laws.	Yes, discretion of CB	Yes, for insured deposits.	No	...
United States	99% of accounts	65.2%	DIA is a separate legal entity, it cooperates with the CB and performs some BS functions.	Yes	Yes	By law: 1.25% of insured deposits	1.4% of insured deposits
Countries : 36	negligible to 100%	negligible to 83%	independent legal entities: 17 under central bank: 11 under MOF: 8 under separate bank supervisor: 5	Yes: 20	Yes: 15 No: 18	17 have a target which ranges from 0.5% to 20%	ranges from a deficit to 10% of insured deposits

Notes: ... Means data are not available.

1/ "DIA" is the Deposit Insurance Agency, "BS" is the Banking Supervisory authority, "CB" is the Central Bank, and MOF is the Ministry of Finance.

2/ The target is to be raised to this level by June 30, 2001.

3/ The DIS is only just going into operation.

Table 7. Explicit Schemes: Private/Public Funding and Administration

Region, Country or Province	Funding 1/		Administration		
	Private	Official	Private	Joint	Government 2/
AFRICA					
Cameroon	x	When necessary, budgetary resources will be available from member countries.		x	
Central African Republic	x	When necessary, budgetary resources will be available from member countries.		x	
Chad	x	When necessary, budgetary resources will be available from member countries.		x	
Congo, Republic	x	When necessary, budgetary resources will be available from member countries.		x	
Equatorial Guinea	x	When necessary, budgetary resources will be available from member countries.		x	
Gabon	x	When necessary, budgetary resources will be available from member countries.		x	
Kenya	x	Central bank can make loans.			x
Nigeria	x	Government provided initial capital and can make loans.			x
Tanzania	x	The government provided initial capital and the central bank can make loans.	x		
Uganda	x	Government provided initial capital and will lend.			x
ASIA					
Bangladesh	x	DIA finances are co-mingled within the central bank.			x
India	x	Central bank and government support with Parliamentary approval.			x
Japan	x	Government and central bank provided initial capital, central bank makes loans. Government can guarantee the Korean DIS debt. 3/		x	
Korea	x	The KDIC is legally authorized to borrow from the government or central bank with MOF approval.			x
Marshall Is.	x				x
Micronesia	x				x
Philippines	x	The government provided initial capital, central bank made loans and has borne losses.			x
Sri Lanka	x	The central bank provided initial capital and can advance funds.			x
Taiwan Province of China	x	The government provided initial capital. The central bank makes loans.			x
EUROPE					
Austria	x	Government bonds may be issued.	x		
Belgium	x	The state can provide a limited guarantee.		x	
Bulgaria	x	Fund has the right to borrow, including from the government in the last resort to receive donations and foreign assistance.		x	
Croatia	x	The fund may borrow from the central bank.			x 4/

Table 7. Explicit Schemes: Private/Public Funding and Administration

Region, Country or Province	Funding 1/		Administration		
	Private	Official	Private	Joint	Government 2/
Czech Republic	x	The central bank and the government would equally make loans to cover any shortfall in funding.			x
Denmark	x	DIS can borrow from banks with a possible guarantee from the government.		x	
Estonia	x	The government made an initial contribution. The fund can borrow without a government guarantee or ask the government to borrow a limited amount on its behalf.		x	
Finland	x	The government and the central bank have borne losses.	x		
France	x	The Government recapitalized Credit Lyonnais outside the DIS, which is funded solely from private sources.	x		
Germany	x		x (private)	x (official)	
Gibraltar	x	None		x	
Greece	x			x	
Hungary	x	The government will guarantee fund borrowing from the central bank or private markets if requested.		x	
Iceland 5/	x	No support.	savings		commercial
Ireland	x				x
Italy	x	Under the Legge Decree, the Bank of Italy can make low-interest rate loans to facilitate a large payout.	x 6/		
Latvia	x	The Bank of Latvia and the government will make initial contributions.			x
Lithuania	x	The government provided initial capital and will cover any shortfall. 7/			x
Luxembourg	x		x		
Macedonia	x	The central bank can extend credit if the fund lacks resources to pay insured depositors.		x	
Netherlands	x	The central bank provides interest-free bridge financing.			x
Norway	x	Government and central bank have borne losses.	x 8/		
Poland	x	The Bank of Poland and the government contributed initial capital.			x
Portugal	x	The Bank of Portugal provided initial capital.			x
Romania	x	The fund can borrow from the state, the central bank, and other sources. The government can guarantee the debt.		x	
Slovak Republic	x	The central bank made an initial contribution and may make loans.		x	
Spain	x	The central bank can make limited loans.		x	
Sweden	x	The government has borne losses.			x
Switzerland	x		x		
Turkey	x	Credit may be extended by the central bank in case of insufficiency in funding.			x

Table 7. Explicit Schemes: Private/Public Funding and Administration

Region, Country or Province	Funding 1/		Administration		
	Private	Official	Private	Joint	Government 2/
Ukraine	x	The government made an initial contribution through the National Bank of the Ukraine.			x
United Kingdom	x	The central bank made loans in the past but there is now no public funding for the DIS.	x	9/	
MIDDLE EAST					
Bahrain	x			x	
Lebanon	x	The central bank contributed half of the initial capital and makes interest-free loans.		x	
Oman	x	The central bank matches half of the member banks' premium contributions; the fund can borrow from the Government, the central bank and member banks.			x
WESTERN HEMISPHERE					
Argentina	x		x		
Brazil	x		x		
Canada	x	The fund can borrow from the markets and the government, but is charged private market rates.			x
Chile		The government is responsible for time and savings deposits and the central bank for demand deposits.			x
Colombia	x				x
Dominican Republic		The government can fund the DIS through savings and loan associations.		x	
Ecuador	x	The fund can borrow, but it is not clear from whom, or whether there is government support.			x
El Salvador	x	Financing by the central bank is possible.			x
Jamaica	x	The fund can borrow in the markets or from the government.			x
Mexico	x	Fund has borrowed from the central bank and MOF.			x
Peru	x	The central bank and the Treasury made initial contributions. Fund may borrow from the Treasury.		x	
Trinidad & Tobago	x	Central bank may lend to the fund.			x
United States	x	Government provided initial capital, bore S&L losses, and can lend to BIF and SAIF.			x
Venezuela	x	Central bank and government have borne losses and refinanced FOGADE, the DIS.			x 10/
COUNTRIES	66	Funds in 53 countries have received government	13	23	34
68	schemes	assistance or can expect to obtain it.	schemes	schemes	schemes

Source: Information provided by country authorities, IMF desk officers, and MAE staff.

Notes: ... Means data are not available.

1/ "Funding" reflects the ongoing responsibility to contribute to an insurance fund or to pay ex post assessments in order to compensate depositors of a failed bank. Situations where the government has provided initial funding, has an obligation to supply loans, or has borne losses are also indicated.

Notes: ... Means data are not available.

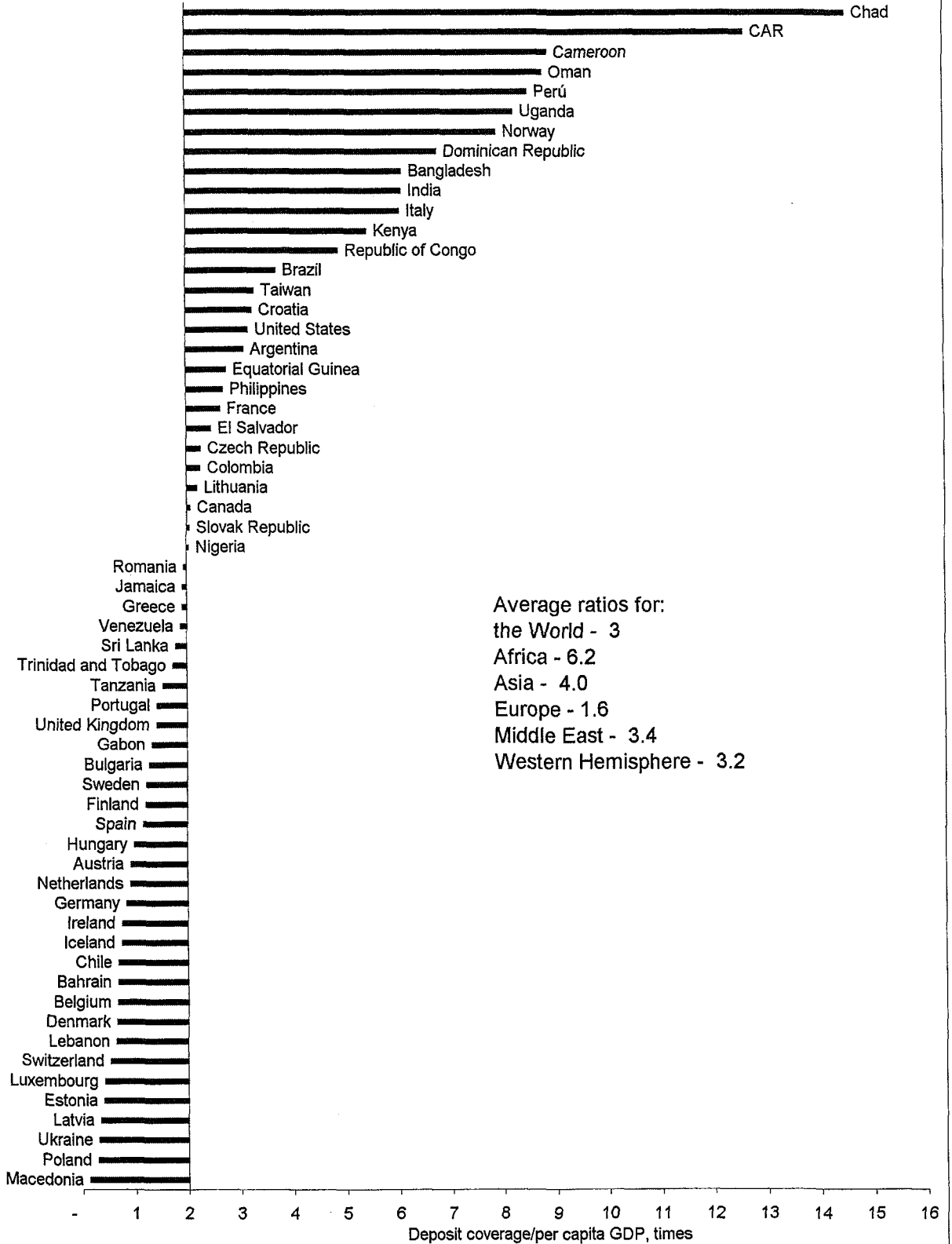
- 1/ "Funding" reflects the ongoing responsibility to contribute to an insurance fund or to pay ex post assessments in order to compensate depositors of a failed bank. Situations where the government has provided initial funding, has an obligation to supply loans, or has borne losses are also indicated.
- 2/ The government should be understood to include the central bank.
- 3/ In addition, as a result of an amendment to the Deposit Insurance Law in February 1998 in Japan, the government allocated ¥17 trillion yen to a special account in the DIC.
- 4/ In Croatia, the system is administered by a private agency, but some decisions must be approved by the central bank.
- 5/ Iceland has two depositor protection schemes—one for commercial banks and the other for savings banks. Both are monitored by the supervisory agency. The bank fund has one member of the government on its board.
- 6/ Although the scheme is privately run in Italy, all decisions must be approved by the central bank so the DIS has little authority.
- 7/ Additional resources from the government are needed in Lithuania to fund the system, which is expected to be fully funded from bank premiums starting in 1999.
- 8/ Norway has two schemes. Both are privately run, but each as two public members of its seven-member board—one from the central bank and the other from the Banking and Securities Commission.
- 9/ The U.K. Deposit Protection Board is a statutory body established under the Banking Act.
- 10/ The seven-member deposit insurance board in Venezuela includes four government appointees, one representative from the banks, one from the labor union, and one from the insurance agency's employees.

Table 8. Characteristics of DIS by Continent

	Number of DIS		Compulsory DIS		Has a Fund		Administration						Coverage						Risk-adjusted Premiums			
	1995	1999	1995	1999	1995	1999	private		joint		government		household		no interbank		no forex		All		1995	1999
							1995	1999	1995	1999	1995	1999	1995	1999	1995	1999	1995	1999	1995	1999		
Africa	4	10	4	4	4	10	0	1	0	6	4	3	1	0	3	2	3	9	0	1	0	6
Asia	7	9	4	5	7	9	1	0	2	1	4	8	0	1	5	5	3	5	2	4	2	2
Europe	23	32	11	30	13	24	7	10	5	12	7	12	5	12	11	29	4	9	4	1	0	9
Mid East	2	3	1	3	1	2	1	0	0	2	0	1	0	0	0	2	0	1	1	1	0	0
Americas	11	14	6	13	9	13	0	2	4	2	6	10	0	3	2	7	1	3	1	4	2	4
Total	47	68	26	55	34	58	9	13	11	23	21	34	6	16	21	45	11	27	8	11	4	21

	Number of DIS		Compulsory DIS		Has a Fund		Administration						Coverage						Risk-adjusted Premiums			
	as % of						private		joint		government		household		no interbank		no forex		All			
	1995	1999	1995	1999	1995	1999	1995	1999	1995	1999	1995	1999	1995	1999	1995	1999	1995	1999	1995	1999	1995	1999
Africa	9	15	100	40	100	100	0	10	0	60	100	30	25	0	75	20	75	90	0	10	0	60
Asia	15	13	57	56	100	100	14	0	29	11	57	89	0	11	71	56	43	56	29	44	29	22
Europe	49	47	48	94	57	75	30	31	22	38	30	38	22	38	48	91	17	28	17	3	0	28
Mid East	4	4	50	100	50	67	50	0	0	67	0	33	0	0	0	67	0	33	50	33	0	0
Americas	23	21	55	93	82	93	0	14	36	14	55	71	0	21	18	50	9	21	9	29	18	29
Total	100	100	55	81	72	85	19	19	23	34	45	50	13	24	45	66	23	40	17	16	9	31

Figure 1. Ratios of Deposit Coverage to per capita GDP in Selected Countries, 1999



Source: GDP per capita for 1998, WEO.