Challenges in Building Effective Deposit Insurance Systems in Developing Countries

Introduction
The global financial crisis of 2008 heightened the need for countries to strengthen their financial safety nets.\(^1\) It especially brought to light the importance of depositor confidence in the financial system and the key role that a deposit insurance system (DIS)\(^2\) plays in maintaining that confidence. The crisis not only tested the design and capacity of existing DISs, highlighting the need for urgent reform, but also led to the establishment of several new DISs. As an immediate response to the global financial crisis of 2008, some countries responded by quickly increasing coverage levels and some guaranteed all deposits for a limited time. Following the crisis, many countries established new DISs, and many made significant changes to strengthen existing DISs, including revising their mandates to allow the DIS to finance certain resolution actions, strengthening funding arrangements, and shortening reimbursement timeframes.

According to the World Bank deposit insurance database,\(^3\) at least five countries established DISs in the crisis year of 2008 alone. The database also showed an increase in the number of countries with explicit DISs,\(^4\) from 84 in 2003 to 112 in 2013, of a total of 189 countries. According to the International Association of Deposit Insurers (IADI),\(^5\) that number increased further to 125 countries as of 2016 (figure 1). This growth was seen globally across all regions and countries, irrespective of income group (figure 2). Despite the impressive growth of DISs in recent years, certain regions, such as Africa, need to catch up. Only 24 percent of African countries have DISs, as shown in figure 3.

When designing a new DIS or reforming an existing one, governments have to ensure that certain preconditions for an effective deposit insurance framework are met and also need to make critical policy choices relating to its design, on the basis of...
their individual country context. Such choices will have a significant bearing on the effectiveness of the DIS. These design features include, among other things, determining the (a) appropriate mandate, (b) right institutional setup, (c) level and scope of coverage, (d) adequacy of funding, and (e) timeliness of depositor reimbursements. The global financial crisis tested and exposed the strengths and weaknesses of some of these important design features. That experience has created increased demand by policy makers for support to reform and strengthen DIS around the world.

The graphic, Deposit Insurance Ecosystem, at the end of this note presents a decision tree for policy makers to establish a deposit insurance system as a part of the safety net. The process starts with assessing the preconditions, then establishing the policy objectives of the DIS, followed by selecting the design features appropriate to the country context. The established DIS becomes a part of the then-expanded financial sector safety net.

**Support Provided by the FIRST Initiative**

The Financial Sector Reform and Strengthening Initiative (FIRST) is a multidonor trust fund managed by the World Bank that finances technical assistance aimed at strengthening financial sectors in low- and middle-income countries. FIRST has responded to the increasing demand for technical assistance on DIS. Over the past decade FIRST has funded 16 projects around the world that directly relate to establishing or strengthening deposit insurance. The technical assistance provided by FIRST covered a range of objectives, including (a) strengthening the legal and regulatory framework of DIS, (b) developing methodologies to set the target fund ratio, and (c) supporting institutional capacity building in areas such as public awareness and depositor reimbursements.

In all FIRST projects, the advice given is based on best practice and the IADI Core Principles for Effective Deposit Insurance Systems (core principles). The core principles, which are part of the international Financial Stability Board’s Key Standards for Sound Financial Systems, are designed to be adapted to a broad range of jurisdictional settings and structures. The World Bank and the FIRST Initiative always take into account a country’s unique circumstances—such as institutional capacity, level of development, and the complexity of the financial sector—to determine a solution that best fits the country’s needs.

In addition, FIRST has funded many projects related to strengthening other elements of the financial safety net, such as bank supervision, bank resolution, emergency liquidity frameworks, and coordination of financial safety net members in contingency planning and crisis management frameworks.

**Lessons Learned**

After a decade of FIRST-funded DIS projects led by the Finance and Markets Global Practice at the World Bank, several key lessons have been learned. This paper addresses some of the most important lessons learned and some of the key challenges in developing countries (figure 4).

---

**FIGURE 2.** Explicit Deposit Insurance by Income Group, 2013


**FIGURE 3.** Explicit Deposit Insurance by Region, 2013

Lesson 1: Deposit insurance is not a “cure” for weak banks.

A DIS can be successful only when certain preconditions have been fulfilled. These preconditions include (a) a stable macroeconomic environment; (b) a sound and healthy banking system; (c) strong prudential regulation and supervision; (d) an effective bank resolution framework; and (e) a well-developed legal framework with efficient courts and procedures along with a strong accounting and disclosure regime (figure 5). A deposit insurance framework is not a “cure” for weak banks. In fact, introducing a scheme during a crisis or when the preconditions are not yet in place can create a huge liability when improperly supervised banks fail. Additionally, in the absence of effective bank resolution tools, poor enforcement can trigger the need for backup funding from the government. This scenario can threaten overall financial stability, destroy public funds, and hamper economic development.

In some countries, the establishment of a DIS is used as a policy response to address a weak financial sector or a tool to address a looming crisis or to boost depositors’ confidence in the banking system. Thus, deposit insurance may be introduced before the necessary cleanup of the financial sector has been undertaken or before other aspects of the safety net have been strengthened. As a result, moral hazard is likely to increase as bank clients tend to reduce their vigilance, thereby allowing banks to engage in excessive risk taking. In such cases, the authorities need to first implement a reform program to get all the missing conditions in place. Working in parallel on reforming the operating environment while building the DIS may be an ambitious agenda for emerging markets in particular, due to capacity constraints. Secondly, a DIS then needs to be designed in a way to compensate for these other weaknesses in the system. For example, if there are weak banks, a DIS should have substantial resources and sound back-up financing. Understanding the importance of meeting the preconditions for the success of a DIS, FIRST technical assistance has included as a first step an assessment of the existence of the preconditions to better understand the operating environment of the future DIS.

For example, FIRST supported the Palestinian Monetary Authority in conducting a feasibility assessment. FIRST then drafted a preliminary design of a DIS and an implementation plan. The study highlighted the preconditions that needed to be improved before establishing the DIS. Those included amending the banking law to create an effective bank resolution framework and improving bank supervision and bank disclosure practices. On the basis of the study, the authorities decided to embark on the implementation of a DIS. They secured a US$3.6 million technical assistance grant from the World Bank to support, inter alia, the establishment of the DIS, including support for drafting the legal framework.

Lesson 2: A DIS is only as strong as the safety net in which it operates.

One of the most important preconditions for setting up a DIS is the existence of a robust financial sector safety net that supports financial stability and reduces the risk of severe financial crises. A financial safety net usually includes the functions of prudential regulation and supervision, a lender of last resort, a bank resolution framework, and deposit insurance. A DIS is not intended to deal with, by itself, systemically significant bank failures or a systemic crisis. To function effectively, the overall safety net must include well-established elements that work efficiently together (figure 6). For example, a strong and effective supervisory system can prevent bank failure by allowing early detection and supervisory intervention in problem banks, followed by the use of recovery measures or enforcement tools.

Similarly, a bank resolution framework may provide for more cost-effective resolution measures than the closure of a bank followed by a DIS payout. FIRST has financed technical assistance in many countries geared toward strengthening individual elements of their safety net. Such assistance includes strengthening of resolution

FIGURE 4. Key Lessons in Deposit Insurance Systems

1. Deposit insurance is not a “cure” for weak banks.
2. A DIS is only as strong as the safety net in which it operates.
3. Mandates of other safety net members should not be duplicated.
4. Operational independence is more important than institutional independence.
5. An effective deposit insurance system is not free.
6. Preparing for payout is no small task.
7. The framework should not be static and should be subject to regular reviews.

FIGURE 5. Preconditions for a Deposit Insurance System

- Stable macroeconomic environment
- Sound and healthy banking system
- Strong prudential regulation and supervision
- Effective bank resolution framework
- Well-developed legal framework and accounting and disclosure regime
frameworks in Nepal, Tunisia, and Uganda; improving prudential supervision and regulation in Albania, Mexico, Nicaragua, Rwanda, and Sri Lanka; and bolstering crisis preparedness capabilities in Mozambique, the Philippines, and Tunisia.

For a country’s safety net to work, it must have a formal mechanism for continuous, close coordination and information sharing among safety net participants. In some countries this mechanism takes the form of a financial stability council (or committee), whose tasks might include the monitoring of risks to the financial sector, crisis preparedness (contingency planning and crisis simulation), and crisis management (coordination and crisis communication). The DIS should always be a full and active member of this institution, regardless of its mandate. FIRST has supported many countries in the drafting of information-sharing and coordination arrangements, in the form of laws, guidelines, and memorandums of understanding. For example, in 2015 FIRST provided technical assistance to Paraguay to formalize the coordination and information sharing among safety net participants. The objective was to create a statutory forum to promote coordination of financial stability initiatives and to harmonize prudential norms across the various financial safety net members. FIRST supported the preparation of draft legislation and related regulations and guidelines for the establishment of a financial stability council. The proposed composition of the council included the heads of all regulatory agencies—the central bank, the Superintendence of Banks, the Superintendence of Insurance, the National Securities Commission, the National Institute of Cooperatives, the Deposit Guarantee Fund, and the Ministry of Finance. The mandate of the proposed council will encompass (a) coordination of the actions of the various institutions that have regulatory and supervisory powers over the financial sector; (b) identification and evaluation of threats, vulnerabilities, and risks to the stability of the financial sector; and (c) recommendations of measures to manage systemic crises.

Lesson 3: Mandates of other safety net members should not be duplicated.

Deposit insurance systems can be established using various recognized mandates. Mandates can range from narrow “pay box” systems that are limited to the reimbursement of insured deposits to systems with more extensive responsibilities for resolution or supervision. The mandates can be broadly classified into pay box, pay box plus, loss minimizing, and risk minimizing. No single mandate is superior to another. The mandate should be selected on the basis of country circumstances and in consultation with the other financial safety net participants. In several countries, the initial policy dialogue on the mandate starts with policy makers aspiring to have larger mandates with more power rather than less. However, it is important to stress that the DIS should not unnecessarily duplicate tasks already being done by other safety net participants, such as supervisory functions already being performed by the central bank. A DIS should however have analytical capacity in house to undertake risk monitoring of the banking sector and assess the viability of restructured banks to ensure sufficient notice of emerging problems and adequate preparation.

The Federal Deposit Insurance Corporation (FDIC) model, which combines deposit insurance with bank supervision and bank resolution powers, is often seen by countries as an attractive model for their DIS. Although the FDIC model works for the United States, with its dual banking system, thousands of supervised institutions, and different federal supervisors for banks, it may not be suitable for many other countries. In other words, the distribution of powers and responsibilities among the financial safety net participants should reflect the capacity of the country as well as the size and complexity of the banking sector. This consideration is particularly important in developing countries that have fewer technical personnel to manage the safety net. Creating a second supervisor in a small country with limited access to expertise might create unhealthy competition between two authorities for the same rare talent and may not be the most efficient use of scarce resources. Countries should therefore consider starting with a simpler mandate. Then over time, as capacity is built and it is sensible to do so, they can enhance the mandate and let the DIS take over other functions such as bank resolution.

Such an expansion of DIS roles has occurred in some countries as the circumstances have changed. For example, in the aftermath of the financial crisis, a number of deposit insurers saw their mandates expand beyond depositor reimbursement to include certain resolution-related powers. In many cases, this expansion means that the DIS under a pay box plus mandate can now finance certain resolution actions if those actions protect insured depositors. For example, they may enable the transfer of insured deposits to another bank through a purchase and assumption arrangement.

The Deposit Guarantee Fund (DGF) in Ukraine is one such case. The initial mandate was a pay box that was later expanded to include resolution and liquidation powers. FIRST supported Ukraine’s
amendment of the DGF law and other related laws, the development of an expanded resolution tool kit, and training and capacity building. The DGF now has full resolution authority under its law, and FIRST provided guidance on particular resolution options, including the establishment of a bridge bank and the use of the purchase and assumption tool. The support increased institutional capacity to manage failed banks by creating a consolidated office to centralize the asset liquidation and management function in an effort to boost the asset recovery rate. FIRST also provided strategic advice to the DGF on the best practices in asset tracking, pooling, and appraisal.

**Lesson 4: Operational independence is more important than institutional independence.**

Policy makers have to decide not only which mandate to select for establishing a DIS but also how the DIS should be set up. The administrative and organizational structures of DISs vary across economies, and the model a country chooses can have an important bearing on the DIS’s efficiency. In many countries the DIS is organized and set up as an independent legal entity, yet international best practice does not call for a DIS to be an independent entity. Rather, best practice supports the operational independence of the DIS; that is, it should be able to use its powers and funds without undue influence from external parties.

A DIS needs to be well governed, transparent, and accountable, and it needs sufficient resources to be able to fulfill its mandate and exercise its powers. In smaller jurisdictions with limited access to needed technical capacity and resources, a case can be made for setting up the DIS within the central bank or the banking supervisor. A small banking sector that cannot contribute sufficiently to build up the deposit insurance fund as well as to pay for the administration of the DIS could also be an argument to not create a full-fledged new organization. Good reasons for a country to start a DIS within a strong organization like the central bank include leveraging its public trust, institutional independence, and legal protection (often conferred under constitutional provisions), as well as gaining access to its institutional capacity and expertise, such as human resources and information technology (IT). The extensive IT needs of a deposit insurer can be expensive to establish and maintain, so using the infrastructure of the central bank can both create some efficiencies and allow the deposit insurer to concentrate on its main tasks: collecting premiums from banks, informing the public about deposit insurance, and preparing for deposit insurance payouts.

Some countries have taken an evolutionary approach, allowing their systems to develop over time. For example, in Kenya, Tanzania, and Uganda, as the necessary infrastructure and capacity has developed, their institutional setup has changed and the DIS has become an independent institution. In Uganda, the authorities reformed the institutional setup of the Deposit Protection Fund (DPF), which was part of the Bank of Uganda, to let the DPF emerge into an independent body. While the DPF had grown steadily over the years, the central bank found it difficult to accommodate the many other tasks of running a deposit insurer, such as raising public awareness or preparing for payouts. FIRST is now providing support to operationalize the new entity and continues to offer crucial support during the transition. In the case of Rwanda, FIRST supported the creation of the Deposit Guarantee Fund, which is managed by the National Bank of Rwanda and governed by an advisory committee appointed by the minister of finance. FIRST provided technical assistance to draft the necessary operational manuals and trained key staff.

**Lesson 5: An effective deposit insurance system is not free.**

The costs of establishing and managing a DIS are primarily borne by a DIS’s member institutions, the banks and other deposit-taking institutions. A DIS needs start-up funding, ongoing funding, and emergency funding. Adequate funding allows for the prompt settlement of depositor claims and is critical for the effectiveness and credibility of the DIS and its role as a supporter of financial stability. To determine the adequacy of its deposit insurance fund and the sufficiency of the premiums contributed by the banks, a DIS should establish a target fund ratio (reserve ratio) based on “clear, consistent and well-developed criteria.” In addition to the ex ante funding provided by banks, emergency or contingency funding or a liquidity arrangement must be established to cover any shortfalls. These arrangements are usually provided by the government or the central bank with a government guarantee and should be paid back over a reasonable period. A DIS without such backup funding is not an option. However, in many developing countries, backup funding and liquidity arrangements are often insufficient or nonexistent. Further, procedures to develop such funding arrangements may often require parliamentary approvals. The resulting delays in reimbursing insured depositors could increase anxiety and create hardship for depositors and negatively affect confidence in the financial system and its safety net.

In practice, many DISs still do not have a target ratio methodology in place to determine their funding needs. In other cases, the methodologies in place are outdated and no longer reflect current circumstances, such as inflation or the increase in deposits over time. Thus some DISs might be underfunded. In some worst-case scenarios, this underfunding can lead to the need for government backup funding if the DIS funds are depleted through large payouts. As a result, deposit insurance can end up being a huge fiscal liability for the government, because banks’ premiums may not be sufficient to stabilize the fund and repay any backup funding.

To help countries better understand their DIS’s funding needs, FIRST has supported deposit insurers in Colombia, Nigeria, the Philippines, and Zimbabwe with the development of appropriate methodologies to set a target fund ratio.

The Nigeria Deposit Insurance Corporation (NDIC) requested technical assistance from FIRST to develop a framework for determining the deposit insurance fund’s target ratio and to provide NDIC with the tools and knowledge to maintain and further develop the model. The World Bank team worked with experts from the FDIC and developed a model that used a credit risk approach to modeling deposit insurance losses. The model and the training provided allow...
the NDIC to revise the target fund estimate on its own as industry conditions change.

A FIRST project in Ukraine supported the Deposit Guarantee Fund (DGF) with the development of two funding models to calculate its funding needs through (a) a model of forecasting DGF revenues on the basis of risk-based premiums and (b) a probabilistic scoring model based on the probability of new bank failures. The two models are now being used by the DGF to calculate the target funding ratio, and they form the basis for requests of backup funding from the government.

FIRST supported Fondo de Garantías de Entidades Cooperativas (FOGACOOP) in Colombia to review its target fund size and the type of premium (flat or differential) that is most suitable. FOGACOOP is the administrator of deposit insurance for savers in the financial cooperative sector in Colombia. A stress-testing model was used for the empirical analysis to assess the adequacy of the fund. FIRST provided training and capacity building to enable the authorities to conduct ongoing assessment of the fund’s adequacy.

Lesson 6: Preparing for payout is no small task.
Probably the most fundamental and important task of every deposit insurer is making effective payouts. Yet it is a complex task that many DISs struggle with, even experienced ones. A DIS is mandated to make timely reimbursements to depositors when a bank is closed and the deposit insurance system is triggered. Setting up a depositor reimbursement system requires strong technical expertise, capacity building, access to information at member banks, systems development, and cooperation and coordination with member institutions and other authorities. Achieving accurate, prompt payouts to depositors should be the primary goal of every DIS, and it should be attained before a DIS considers an expanded mandate.

Moreover, the DIS needs to continuously reassess the deposit reimbursement arrangements and to strive for shorter depositor reimbursement times, the benefits of which were very clearly seen in the recent financial crisis. Prompt and accurate reimbursement is crucial to financial stability because it helps maintain public confidence, minimizes the likelihood of contagion, reduces disruption for depositors, and maintains the credibility of the DIS. IADI now promotes a payout timeframe of seven working days, which is a challenging goal for many DISs around the globe. Deposit insurers who are not currently meeting this target are asked to have a credible plan in place to do so in a reasonable timeframe.

Some of the most critical impediments of effective reimbursement include poor quality and untimely access to depositor records, inadequate IT systems, and lack of resources to conduct a reimbursement. Even with the best infrastructure, DISs need to be confident in their ability and processes to conduct a payout efficiently and capably. One way to test operational readiness is through simulation exercises, which give authorities an opportunity to practice communication, coordination, and decision making and to test their systems in a “near-live” crisis situation.

In Ukraine, FIRST supported the DGF in drafting legislative amendments to reduce the payout period, which in some cases was as long as 7 months, to 20 working days after announcing a bank insolvency. Other projects supported deposit insurers in strengthening their payout capacity and planning processes.

Lesson 7: The framework should not be static and should be subject to regular reviews.
When a DIS framework is initially designed, countries make critical policy choices by considering the operating environment, country circumstances, and nature of the financial sector at the time. But these conditions change over time, triggering the need to periodically reassess and reform the system. The DIS framework should therefore not be seen as static but rather should be reevaluated from time to time to determine if it is in line with the latest developments. For example, the reassessment of the level and the scope of coverage will ensure that the large majority of depositors stay fully protected while the system leaves a substantial proportion of the value of deposits unprotected so as not to undermine market discipline and mitigate moral hazard. Thus, policy makers have to monitor the crucial link between adequate coverage levels and the impact of increased coverage levels on the financing needs of the deposit insurance fund. Consequently, the level of ex ante funding should be periodically reviewed, and the methodology and approach used to determine the adequacy of the fund level should be validated. Especially following a financial crisis, policy makers should review the DIS mandate, framework, and funding.

Conclusion
The recent financial crisis emphasized the fact that a DIS can play an important role in reducing the likelihood of bank runs and maintaining financial stability by working in tandem with the other elements of the financial sector safety net. However, the developing countries must exercise caution in determining when and how to implement a deposit insurance framework. Experience has shown that implementing a DIS in a weak environment will likely undermine the effectiveness of the scheme. Countries must ensure that the necessary preconditions are in place. Furthermore, there is no one-size-fits-all approach to establishing a DIS. Countries must adapt design features suited to their unique context to prevent unintended consequences, such as the increase of moral hazard. Once a DIS is established, the authorities have to regularly assess the framework to ensure that its public policy objectives are still in line with its operating environment. This will enable the DIS to become a central pillar of the financial safety net and a key enabler of financial stability.

Acknowledgments
The authors thank Consolate Rusagara, program manager of the FIRST Initiative, for guidance and supervision; Claire McGuire, Pramita Sengupta, and Ilias Skamnelos, for their peer reviews; and Subita Gurbani for publication and editorial support.
Endnotes

1. The safety net usually consists of prudential regulation and supervision, a resolution framework, deposit insurance, and a lender-of-last-resort/emergency liquidity assistance function by the central bank.

2. Deposit insurance is defined as a system that is established to protect depositors against the loss of their insured deposits in the event that a bank is unable to meet its obligations to such depositors, according to the International Association of Deposit Insurers (IADI).


4. Explicit deposit insurance is a system that offers limited protection to certain depositors on the basis of a clear legal framework. Implicit deposit insurance can be characterized as ad hoc measures by authorities to protect depositors from any losses, often on an unlimited basis (for example, through a government bailout of banks).

5. IADI is a forum for deposit insurers from around the world to share knowledge and expertise. It provides training and educational programs and produces research and guidance on matters related to deposit insurance. See http://www.iadi.org.

6. Those economies are Albania, Colombia, Kyrgyz Republic, Nepal, Nicaragua, Nigeria (2), the Philippines (2), Rwanda, Uganda, Ukraine (2), Vietnam, West Bank and Gaza, and Zimbabwe.


8. DIS mandates can be broadly classified into the following four categories:
   • A pay box mandate, in which the deposit insurer is only responsible for the reimbursement of insured deposits once a bank is closed by the supervisory agency or central bank
   • A pay box plus mandate, in which the deposit insurer has additional responsibilities. In most of these cases, the deposit insurer can be asked to finance certain resolution options that have the same effect as the reimbursement of deposits (for example, a purchase and assumption transaction of deposits) and are subject to a least-cost test
   • A loss minimizer mandate, in which the insurer actively engages in a selection from a range of least-cost resolution strategies when the deposit insurer is also the resolution authority
   • Finally, a risk minimizer mandate, in which the insurer has comprehensive risk minimization functions that include risk assessment and management, a full suite of early intervention and resolution powers, and in some cases, prudential oversight responsibilities, as found in the U.S. Federal Deposit Insurance Corporation (FDIC) model.

9. The United States has different regulators for its large number of deposit-taking institutions. There are approximately 3,000 member banks in the Federal Reserve System, and for those institutions the Fed is the primary federal regulator. The FDIC is the primary federal regulator for state-chartered, non-Fed member banks and savings associations, of which there are about 3,700. The FDIC is also the deposit insurer and resolution authority for all insured institutions other than credit unions.


Resources


**Preconditions**

- Stable macroeconomic environment
- Sound and healthy banking system
- Well-developed legal framework

**Financial Safety Net**

- Prudential regulation and supervision
- Bank resolution framework
- Lender of last resort/Emergency liquidity

**Public Policy Objectives**

- To contribute to financial sector stability
- To protect small depositors from loss of saving

**Design Options**

- **Mandate**
  - Pay box
  - Pay box plus
  - Loss minimizer
  - Risk minimizer

- **Institutional setup**
  - As part of Central Bank/Bank Supervisor
  - Separate institution

- **Members**
  - All deposit banks
  - Other types of financial institutions

- **Start-up funding**
  - Member banks
  - Government
  - International donors

- **Ongoing funding**
  - Level of premium from banks/financial institutions
  - Target fund ratio
  - Flat/risk based premiums

- **Emergency funding**
  - Lines of credit from the government
  - Government guarantee for borrowing from other sources

- **Coverage**
  - Type of depositors and scope of deposits
  - Coverage level

**Expanded Financial Sector Safety Net**

- Deposit Insurance Scheme
  - Prudential regulation and supervision
  - Resolution framework
  - Lender of last resort/Emergency liquidity