The Government's Role in Deposit Insurance

THE DIFFICULTIES OF BANKS and thrift institutions during the last decade have created a great deal of interest in U.S. banking system reform. Among the options that have been considered is restructuring the federal deposit insurance system or eliminating it entirely. The Federal Reserve Bank of St. Louis recently invited six economists who have conducted research on banking and financial regulation to write short articles on deposit insurance and the federal government's role in providing it. These six articles are collected in the following pages.[1]

Each article in this collection addresses one or both of the two basic questions that confront anyone who might contemplate reforming the deposit insurance system. The first question involves the problem of liquidity crises, or financial panics, that troubled the U.S. banking system during the 150 years before the establishment of federal deposit insurance. There have been no liquidity crises since deposit insurance was established, and most economists believe that this is not coincidental—that deposit insurance has in fact prevented liquidity crises. Any proposal for deposit insurance reform that involves limiting the coverage of insurance or eliminating it entirely must address the problem of financial panics. The second question involves the so-called moral-hazard problem of deposit insurance—the fact that it provides insured banks incentives to take excessive risks. Most economists believe that moral-hazard problems played a major role in causing the wave of bank failures that occurred during the 1980s. Proposals for deposit insurance reform that involve retaining an insurance system of approximately the current scope must find some way of solving the moral-hazard problem.

The first article in this collection describes the history of the state deposit insurance systems that preceded the federal insurance system and argues that these systems were also afflicted by moral-hazard problems. The second article argues that the problem of liquidity crises has been overblown, that an unregulated banking system would be stable, and that deposit insurance is not needed. The third article argues that though liquidity problems may have existed in the past, recent innovations in the financial system would enable banks to prevent them without relying on deposit insurance. The fourth article summarizes the theoretical basis for the claim that we need deposit insurance to solve the liquidity crisis problem and challenges the argument that adequate market solutions to this problem are now available. The fifth article presents a theoretical analysis of the prospects of solving the moral-hazard problems of deposit insurance by means of a system of risk-based insurance premiums. The sixth and final article outlines the risk-based premium system recently adopted by the Federal Deposit Insurance Corporation and questions whether it will succeed in solving the problem of bank failures.

The current debate over the role of government in deposit insurance can be adequately under-

[1]Each of the six authors was a participant in "Aspects of Government Deposit Insurance: Opposing Views on the Role of Government," a symposium held December 11, 1992, at the Federal Reserve Bank of St. Louis.

stood only in the context of the U.S. historical experience with monetary and financial institutions. A key feature of this experience has been a sequence of largely unsuccessful attempts to reform the financial system to solve the problems created by bank runs, bank failures and financial panics. This process, which culminated in the establishment of the federal deposit insurance system in 1933, is surveyed in the shaded insert on p. 6.

For its first 50 years of existence, federal deposit insurance seemed to succeed both in preventing financial panics and in sharply reducing the number of bank failures. The losses associated with the failures of banks and thrift institutions were easily covered by their respective insurance funds. After 1980 the failure rates of banks and particularly thrift institutions skyrocketed. The federal savings and loan insurance fund was overwhelmed, and hundreds of billions of dollars in savings and loan losses had to be converted out of general federal revenues, which is to say by federal taxpayers. The policy problem we now face is to reform our financial system to prevent a repeat of the hugely expensive bank failure problems of the period after 1980 without recreating the problem of instability and panics that existed before 1933.

State Deposit Insurance Systems

David Wheelock, an economist in the Research Department of the Federal Reserve Bank of St. Louis, wrote the first article in this collection. Wheelock has written extensively about the history of state deposit insurance systems. He begins his article by pointing out that in 1933, government deposit insurance was neither a new concept nor an unprecedented policy. During the pre-Civil War era, six states established systems to insure state bank notes; during the early twentieth century, eight states established systems to insure state bank deposits. The systems operated under a variety of different regulatory environments and financial arrangements. According to Wheelock, these differences may help explain differences in the systems' performances. For example, mutual-guarantee insurance systems, in which each insured bank could be assessed any amount necessary to cover depositors' claims against insured banks that failed, had better records than conventional systems, in which banks paid premiums that were used to create insurance funds to cover depositors' claims. Wheelock argues that mutual guarantee systems were more successful because they gave insured banks a stronger interest in monitoring the soundness of other insured banks.

Because membership in each of the state insurance systems was effectively voluntary, they were exposed to the problem of adverse selection. Risk-prone banks were more likely to join than conservatively managed banks, and well-managed banks tended to leave insurance systems at the first sign of trouble. Wheelock reports that because a bank's insurance premium was not linked to its degree of failure risk, insured banks were encouraged to increase the riskiness of their loan portfolios. (This moral-hazard problem is a recurring theme in deposit insurance literature and is discussed in each article in this collection.) This was particularly true for insured banks that found themselves in financial distress.

Wheelock concludes by observing that the historical record of state deposit insurance systems has generally not been considered successful. He suggests two options the government might select if it chooses to retain deposit insurance: a mutual guarantee system modeled after the successful systems of the early 19th century or a system of limited insurance combined with continued regulatory restraints on bank risk taking.

The Free Banking Option

Historically, monetary and financial questions have occupied a special place in economics. Economists skeptical of most types of government involvement in economic activity have often been willing to make important exceptions with regard to the monetary and financial sectors. For example, Milton Friedman, a throughgoing free-marketer on most issues, has endorsed both a government monopoly over currency provision and tight government regulation of creation of deposits.[2] He has also written approvingly of federal deposit insurance.[3]

[2]See Friedman (1960), chapter 1. For a more recent statement of Friedman's views on the role of the government in monetary affairs, see Friedman (1986).

[3]Friedman has written, for example, that deposit insurance "has been the most important structural change in our monetary system in the direction of greater stability since the post-Civil War tax on state bank notes" [see Friedman (1960), p. 21] and that it is "a form of insurance that tends to reduce the contingency insured against" [see Friedman and Schwartz (1963), p. 440].

In recent years a small but growing group of economists has argued that monetary and financial institutions are not an exception to the principle of the superiority of *laissez-faire*. These so-called free bankers believe that banks should be allowed to operate in a truly competitive market environment—free from government regulations, such as restrictions on the nature or quantity of their assets and liabilities (including monetary liabilities), and also free from government protections, such as legal restrictions on entry and competition, Federal Reserve System last-resort lending, and federal deposit insurance.

Kevin Dowd, a reader in monetary economics at the University of Nottingham (United Kingdom) wrote the second article in this collection. Dowd is one of the leading advocates of a free banking system. He argues that government insurance, far from protecting banks, weakens them and makes them more likely to fail. Uninsured banks, he asserts, would have incentives to acquire safe assets, obtain adequate capital from investors and provide proof of their soundness to depositors. Competition would ensure that bankers struck the right balance between depositor protection and return to investors. According to Dowd, the historical record indicates that banks in relatively unregulated banking systems maintained strong capital positions and retained depositor confidence. He argues that historians have greatly overestimated the severity of the problem of runs and panics. Bank runs were usually constructive events that weeded out weak banks.

Dowd argues that deposit insurance weakens a banking system by freeing banks from depositor scrutiny, which gives them incentives to weaken their capital positions and make riskier loans. Banks that find themselves in financial distress have incentives to take even greater risks in an attempt to recover, and bank runs no longer put a stop to this process by forcing them to close. Based on their private incentives, regulators act slowly to close insolvent banks, and the resulting losses must be covered by the insurance corporation. Eventually the insurance corporation also becomes insolvent and must seek a financial bailout from taxpayers.[4]

Dowd's concluding recommendation that the federal government eliminate deposit insurance no longer seems as radical as it might have a few years ago. It must be noted, however, that his reading of the historical record regarding bank runs and financial panics is far more optimistic than that of most other economists.[5] Historically, the public seems to have believed that runs and panics constitute a serious problem whose solution requires government intervention. This belief has provided a powerful stimulus for banking reform. Relatively few economists would feel comfortable asserting that it has been entirely misguided.[6]

Market-Based Alternatives to Deposit Insurance

J. Huston McCulloch, a professor of economics at Ohio State University, wrote the third paper. Professor McCulloch has published on the role of banks as financial intermediaries. McCulloch, like Dowd, advocates the elimination of government deposit insurance. Unlike Dowd, however, he is willing to concede that banks and thrift institutions may once have had two special problems that necessitated government intervention: mismatching of the terms of their assets and liabilities and vulnerability to liquidity crises (runs). He argues that financial markets have now developed private solutions to these problems, so government solutions are no longer needed.

Most of McCulloch's article is devoted to a discussion of the problem of liquidity crises. The solution to this problem, he asserts, is the money market mutual fund (MMMF). Because the value of an MMMF's liabilities is tied directly to the value of its assets, a change in the value of the assets does not give depositors an incentive to run. If depositors run anyway, the assets, which are very liquid, can simply be sold. McCulloch notes that MMMFs have already survived runs—large, rapid declines in the total amount invested—that would have been disastrous for banks.

[4]Though most economists would probably agree that regulation of banks and thrift institutions (particularly the latter) has suffered from serious problems, many might disagree that government regulators are inherently incapable of monitoring and managing the problems of distressed banks. For an analysis that defends the record of bank regulators and challenges certain arguments of their critics, see Gilbert (1991 and 1992).

[5]For an analytical survey of the record of U.S. banking panics between 1857 and 1933, see Dwyer and Gilbert (1989).

[6]Free bankers, it should be noted, argue that the problems of the banking system have usually been caused by bad government regulation rather than by inadequate regulation.

Historical Background

Before the Civil War, virtually all U.S. banks were chartered and regulated by state governments. The principal liabilities of these institutions were bank notes, which provided the economy with the hand-to-hand currency now provided by Federal Reserve notes. These notes were supposed to be convertible—redeemable in gold and silver coins, at par and on demand.

The antebellum state banking systems were afflicted by several problems, including relatively high failure rates and vulnerability to financial panics (periods when banks across the United States were confronted with runs by note holders). In most cases the banks responded to panic-induced runs by suspending convertibility, an unpopular action that reduced the acceptability of their notes and caused them to trade at discounts.[1] Financial panics were usually associated with a large number of bank failures; many banks that suspended payments proved unable to resume them and ultimately closed. In addition, panics were often followed by lengthy periods of economic depression.

The sequential link between financial panics, bank failures and economic depressions convinced many people that panics and failures caused depressions and produced political pressure for banking reform. In 1863 Congress passed the National Bank Act, which was intended to replace the state banking systems with a system of federally chartered banks. Supplementary legislation imposed a prohibitive tax on state bank notes, a move that was intended to force state banks to join the national banking system or close down. The state banks survived and prospered, however, by issuing demand deposits, which were not taxed. National banks also began to issue demand deposits, and checks drawn on these deposits soon became the dominant means of payment in the U.S. economy.

The dual banking system of the post–Civil War period—federally chartered and regulated national banks that issued both notes and deposits coexisting with state-chartered and state-regulated state banks that issued only deposits—also proved to be vulnerable to financial panics. Major panics occurred in 1873, 1884, 1890, 1893 and 1907.[2] These panics

[1]A $5 note issued by a suspended bank might, for example, trade in the open market for $4.50 in specie (a 10 percent discount).

[2]See Sprague (1910). Sprague notes that the 1873 panic was not followed by many bank failures and that the panics of 1884 and 1890 were less severe than the others and did not involve suspensions.

McCulloch argues that the risk of large changes in the value of MMMF assets is too small to discourage consumers from investing and that the risk is also small enough to allow consumers to write checks drawn on their fund balances. He concedes, however, that in a completely competitive market, traditional banks offering conventional checking accounts might coexist with checkable MMMFs. These traditional banks, he argues, should not be insured by the government.

In McCulloch's view, deposit insurance was possible only in an environment of restricted competition between banks. Consumers paid a high but indirect price for these restrictions, which permitted banks to pay artificially low interest rates to depositors. The restrictions also made bank charters very valuable, a fact that prevented bank managers from taking risks that might cause their banks to fail and charters to be forfeited. The financial deregulation of the early 1980s revived interbank competition and reduced the value of bank charters. This inevitably led to increased risk taking, huge losses and insurance fund insolvency.

McCulloch concludes by noting that the most convincing theoretical case for government provision of deposit insurance is based on a formal model developed by Diamond and Dybvig (1983). In the Diamond-Dybvig model, banks provide important risk-sharing services to depositors but can do so effectively only if the government provides deposit insurance. McCulloch contends, however, that uninsured financial institutions could provide equally effective risk-sharing services.

were often followed by many bank failures and prolonged periods of economic depression; the depressions following the panics of 1873 and 1893 were particularly long and severe. After the Civil War, panics came more frequently and seemed to cause more financial disruption.[3] The panic of 1907 seems to have been the last straw prompting the federal government to reform the U.S. banking system. The following year Congress established the National Monetary Commission to study reform options. The commission's report was presented in 1912 and led directly to the Federal Reserve Act of 1913, which established the Federal Reserve System. The new system created 12 federally administered Reserve Banks that were authorized to make last-resort loans to banks facing panic-induced runs.[4]

As in the aftermath of many other major U.S. banking reforms, after the Federal Reserve System was established, many people believed that the problem of banking instability had been definitively solved. The Great Depression of 1929–33 dispelled this belief in very dramatic fashion. Although the Depression was not precipitated by a short, sharp panic of the late–nineteenth century type, it was accompanied by a succession of banking crises during which many banks failed. The existence of a lender of last resort in the form of Reserve Banks did not prevent bank runs and bank failures. The banking crises culminated in the Bank Holiday of early March 1933, when newly inaugurated President Roosevelt closed all the nation's banks for a week in an effort to calm the panic atmosphere. As noted, many U.S. banks had failed before the holiday was declared. Many more did not open afterward, and others closed within a few months of the holiday. Overall, almost a third of the nation's banks failed during the Great Depression. Congress responded to this disaster by passing the Banking Act of 1933, which established the federal deposit insurance system.[5]

[3] Part of the problem was that during suspensions bank deposits were less readily negotiable than bank notes. See Friedman and Schwartz (1963), pp. 110, 161–63.

[4] Only members of the System were eligible to receive these loans. Though national banks were required to join the System, state banks were not, and a great many state banks chose not to become members.

[5] For a brief survey of U.S. monetary history up to the Civil War, see Russell (1991). For an exhaustive historical account covering the period from the Civil War to 1960, see Friedman and Schwartz (1963).

The Case for Retaining Deposit Insurance

Phillip Dybvig, a professor of finance at Washington University in St. Louis, wrote the fourth article. Professor Dybvig is coauthor of the Diamond-Dybvig article, a seminal work on bank runs that provided theoretical support for government deposit insurance. He opens his article by observing that the optimal scope of government regulation is one of the most difficult questions confronting economists. Deposit insurance, he comments, may be an exception to the rule that government intervention rarely improves the outcomes produced by competitive markets.

Dybvig's defense of deposit insurance is based on the Diamond-Dybvig article, which he says made three basic points. The first two points are that banks perform a key role in creating liquidity and that banks' efforts to create liquidity expose them to runs. The third point is that bank runs can be prevented in any one of the following three ways: by laws permitting banks to suspend convertibility of deposits into currency, by government deposit insurance, or by a government lender of last resort. Because suspension is potentially very costly to depositors and last-resort lenders typically suffer from credibility problems, deposit insurance seems like the natural solution. In practice, Dybvig notes, deposit insurance seemed quite successful before the 1980s.

Dybvig concedes that deposit insurance systems tend to be vulnerable to the problem of moral hazard—insured banks taking excessive risks. Managing this problem by government supervision and regulation is essential to the success of any insurance system. Dybvig's reading of the historical record suggests that it may be possible for government regulatory agencies to do this job effectively—though he admits that the jury is still out on this question.

Dybvig concludes his article by commenting on three policy issues. First, he argues that the recent reduction in the maximum coverage of deposit insurance will not encourage depositors to monitor their banks more carefully. Second he asserts that 100-percent-reserves banking (the type proposed by McCulloch) can be a viable alternative to deposit insurance only if the economy has surplus liquidity and liquidity creation by banks is no longer necessary for efficient functioning of the economy. This, Dybvig writes, seems doubtful. Finally, Dybvig notes that the government's need to control the money supply is another possible reason we might need to retain the current banking system and thus federal deposit insurance.

Resolving Moral Hazard through Risk-Based Deposit Insurance Premiums

Anjan Thakor, a professor of finance at Indiana University who has written on the fair pricing of deposit insurance, contributed the fifth article. Professor Thakor begins by identifying two basic problems confronting deposit insurance systems: private information and moral hazard. The private information problem is that a bank's managers are better informed than its regulators about the risk characteristics of the bank's loans—an informational advantage that may allow them to frustrate regulators' attempts to price deposit insurance efficiently. Insurers, Thakor writes, may attempt to respond to this problem directly by auditing the banks to try to increase their information or indirectly by trying to construct an insurance pricing scheme that is incentive compatible. An incentive-compatible scheme presents a bank with a menu of different insurance contracts that is constructed so that the bank's choice of a particular contract from the menu reveals its private information.

Chan, Greenbaum and Thakor [CGT (1992)] explore an insurance scheme that ties a bank's deposit insurance premium to the value of its equity capital. A bank with risky assets will not wish to maintain a high level of capital because the capital will be lost if the bank fails; it therefore will accept a high insurance premium. A bank with safer assets will be comfortable maintaining a higher level of capital but will desire a lower premium. CGT show that an insurance pricing system of this form can be incentive compatible. If each bank chooses the contract that maximizes its expected profits, its choice reveals the riskiness of its assets. Thakor notes, however, that such a system can work only if banks can earn economic profits from their activities—which means only if there are restrictions on interbank competition or if the government provides banks with subsidies. Economic profits, Thakor observes, can also help control the moral-hazard problem by giving banks an incentive to avoid excessive risk taking. An unfortunate implication is that the public's desire for a more competitive banking system may well be inconsistent with its desire to reform the deposit insurance system.

Thakor goes on to raise two other potential problems with deposit insurance systems: they may encourage government interference in other aspects of banking, and they may induce self-interested regulators to conceal the problems of financially distressed banks. He concludes by observing that the many problems with the current deposit insurance systems make him pessimistic about the prospects for its successful reform and goes on to present a brief discussion of more radical options for banking reform. These include a 100-percent-reserves banking system of the type discussed in the McCulloch and Dybvig articles and a system in which insured banks restricted to acquiring very safe assets would coexist with uninsured banks whose asset choices were not restricted.

The FDIC's System of Risk-Based Insurance Premiums

Mark Flood, an economist in the Research Department of the Federal Reserve Bank of St. Louis, wrote the last article. Mr. Flood has written on the history of deposit insurance and on the use of option pricing models to analyze eposit insurance. His contribution describes and evaluates the system of risk-based insurance premiums recently adopted by the Federal Deposit Insurance Corporation (FDIC). He begins by reviewing the moral-hazard problem and noting that risk-based insurance premiums are a potential solution to the problem. He goes on to describe the risk-based premium system that has been adopted by the FDIC. Under the new system, a bank's insurance premium is jointly determined by its level of capitalization and an evaluation of its financial health provided by bank regulators. The most important element of this evaluation is the bank's CAMEL rating—a five-point summary ranking of its overall soundness.

Flood identifies two potential problems with the FDIC's proposal. First, it may be possible for people to use a bank's risk premium and other publicly available information to infer its confidential CAMEL rating. This might lead to runs on banks with low CAMEL ratings.[7] Second, banks may try to use window-dressing accounting schemes or other cosmetic devices to deceive regulators about their financial health.

The most controversial aspect of Flood's article is his suggestion that we may have misidentified the cause of many of the bank failures. The moral-hazard explanation says that bank failure rates rose because competent bank managers responded to financial incentives to take increased risks. Flood proposes an alternative explanation: incompetent bank managers were unable to evaluate the risks they were taking. Financial regulation, he speculates, protected these incompetent managers from the rigors of the competitive marketplace. When regulation was rolled back in the early 1980s, they were unable to adapt and many of their banks failed.

Flood argues that we do not yet have enough evidence to determine which of these two problems—moral hazard or inferior management—was the principal cause of the banking troubles of the last decade. He concludes by noting that if inferior management caused many of the recent bank failures, risk-based insurance premiums may not solve the problem of failures and alternative regulatory responses may be needed.

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The six articles in this collection present a wide range of views on the need for deposit insurance and the federal government's role in providing it. This diversity of opinions is an accurate reflection of the current state of the debate on these issues. Virtually every economist and policymaker agrees that the federal deposit insurance system as it existed in the 1980s required major reform. There is, however, no apparent consensus about whether the reforms that have already been implemented are adequate to solve the problems of the U.S. banking system, or if further changes are needed, what the nature of those changes should be.

— ***Steven Russell***

[7] Flood reports the results of his own attempt to identify banks with low CAMEL ratings, which seems to have been quite successful.