

**SAFETY-NET REFORM IN THE UNITED STATES:  
WHAT'S DONE AND WHAT REMAINS**

**George G. Kaufman and Peter J. Wallison\***

On the heels of the financial crisis suffered by its commercial banks and thrift institutions in the 1980s and early 1990s, the United States enacted a number of major and far reaching reforms in the federal government safety net affecting depository institutions. These reforms were intended to reduce both the probability and cost of such crises in the future. Indeed, poorly designed safety-nets are widely blamed as important contributors both to the outbreak and high cost of banking crises--not only in the U.S., but world-wide. This paper reviews briefly the reasons for financial safety-nets and the importance of structuring the net correctly. It then discusses and evaluates the reforms that have been adopted in the U.S., beginning with the enactment of the Federal Deposit Insurance Corporation Improvement Act (FDICIA) in 1991. In particular, the paper describes the transformation of the deposit insurance system from a joint government-private funded system to a primarily private funded system. The final section of the paper identifies important reforms that are still required if the probability and costs of future bank and financial crises are to be further reduced.

**I. Purposes of the Safety-Net**

The government-provided or sponsored safety-net in the U.S. has three components:

1. Deposit insurance provided by the FDIC,

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\* Loyola University Chicago and American Enterprise Institute. Both authors are members of the U.S. Shadow Financial Regulatory Committee. This paper was initially presented at a conference of the joint meeting of the European, Japanese, and U.S. Shadow Financial Regulatory Committees in Tokyo on October 17, 2000.

2. Lender-of last-resort (LLR) facilities provided by the Federal Reserve System,  
and
3. The Federal Reserve's guarantee of daylight overdrafts for large dollar interbank transfers on Fedwire.

Although the safety-net operates through the banks, with only very rare exception, its purpose is to protect bank depositors and possibly other creditors, not bank shareholders.

### Deposit Insurance

Federal government deposit insurance was introduced in the Banking Act of 1933--a comprehensive law enacted at the bottom of the Great Depression that focused on bank safety at a time of massive bank failures and fears of a banking system breakdown (FDIC, 1998, Flood, 1992, and Golembe, 2000). Between 1929 and 1933, the number of commercial banks declined from about 25,000 to about 15,000, mostly by failure. In addition, bank "holidays," in which most or all bank activities were suspended (i.e., banks were temporarily closed), had been declared by many states, and by the federal government in March 1933 -- for one week immediately upon the inauguration of newly elected President Franklin Roosevelt. By effectively "freezing" deposits, these holidays caused widespread disruption.

But enactment of national deposit insurance was not easy. A number of states had provided or sponsored deposit insurance since before the Civil War and had, on the whole, bad experiences (Calomiris, 1989 and 1990, and FDIC, 1998). Bank failures often increased and the resulting losses drove many of these insurance funds into insolvency.

Some 150 deposit insurance bills had been unsuccessfully introduced in Congress before a program was finally enacted (FDIC, 1998). Insurance was strongly opposed by large banks, among others, but was favored by small, unit banks (banks without branches). These were the prevalent type of bank at the time and, largely because of their inability to diversify their loan portfolios sufficiently, had experienced almost all of the failures. Small banks viewed deposit insurance as a way for them to remain competitive with larger branch banks. To gain the support of larger banks, the Act included a prohibition of interest on demand deposits and imposed ceilings on the interest rates payable on time deposits. It also slightly expanded branching authority, which also benefited large banks.

The Banking Act of 1933 contained two deposit insurance plans—a temporary emergency plan and a permanent plan, which was scheduled to go into effect July 1, 1934, or earlier if the President so proclaimed. In the temporary plan, deposits were covered up to \$2,500 by a newly federally chartered corporation, the Federal Deposit Insurance Corporation (FDIC). In the permanent plan, deposit coverage was broader -- 100% for the first \$10,000, 75% for the next \$40,000, and 50% for anything over \$50,000. Under the temporary plan, all insured banks were required to pay assessments equal to 0.5% of their insured deposits, with one additional assessment if needed; the permanent plan provided for an initial assessment of 0.5% with unlimited subsequent assessments of 0.25%. However, the permanent plan was superseded first by an act in 1934 that extended the temporary plan to 1935, and then by the Banking Act of 1935, which contained a new plan. The permanent plan never became operational (Flood, 1992). The extended temporary plan and the new plan both covered deposits up to \$5,000 in full.

In theory, the superseded 1933 permanent plan would have made the banking industry responsible for FDIC losses, since the potential assessments on insured banks were unlimited.

The federal government was neither explicitly nor legally obligated to cover any losses of the FDIC that were not covered by assessments on the banks themselves.

However, the Banking Act of 1935 established a different structure that remained in effect until the enactment of FDICIA in 1991. This structure provided for an annual assessment on all insured banks equal to  $1/12^{\text{th}}$  of 1% of their average total deposits, payable in two installments (Flood, 1992). The apparent purpose of this approach was to permit the accumulation of a substantial fund out of which the FDIC could cover future losses. However, by limiting the assessments on insured banks to a maximum annual amount, the 1935 Act effectively placed the risk of catastrophic loss on the FDIC and hence the federal government. A similar structure applied to the Federal Savings and Loan Insurance Corporation (FSLIC) established in 1934. If either insurance fund should ever be exhausted, the respective industry had no obligation to replenish it. This is exactly what occurred in the late 1980s and early 1990s, when a large number of thrift and bank failures exhausted both the FSLIC's and the FDIC's funds. In that case, the FSLIC (then reformed as the Savings Association Insurance Fund (SAIF) under the control of the FDIC) had to be recapitalized by the federal government in 1989.

Besides assisting smaller banks, the original objective of deposit insurance was to protect the liquid assets of small, unsophisticated depositors, and to prevent depositor runs that Congress thought might threaten both the solvency of individual banks and—in severe cases—initiate a general run to currency. The last could cause a downturn in the macroeconomy by reducing aggregate reserves in the banking system, triggering a multiple contraction in money and credit, and seriously disrupting the payment system.

Through time, the perceived purpose of deposit insurance implicitly expanded to include all depositors and, at times, even other creditors at banks viewed as too important to fail for economic or political reasons. At the same time, the public came increasingly to perceive the government as ultimately responsible for rescuing the insurance funds if and when the banks and thrifts were unable to finance all the losses. However, until the 1990s, there was no legislation that explicitly recognized these changes in perception, although by 1980 legislation had increased insurance coverage to \$100,000 in a number of steps. Thus, much of the expanded role of deposit insurance was ex-ante conjectural, but, to the extent it shaped expectations and behavior, often became ex-post de-facto.

#### Lender of Last Resort and Fedwire Finality

A perceived need for a lender of last resort was one of the major reasons for the establishment of the Federal Reserve System by the Federal Reserve Act of 1913. In theory, such a facility would enable otherwise healthy banks to continue operations in the face of the public's demand for cash—presumably at a time of financial panic. Initially, such assistance was provided solely to targeted individual banks through the discount window, but in more recent years it has also been provided to the financial markets in general through open market operations (Kaufman, 1991 and 2001). LLR facilities are widely perceived as intended to protect the financial system as a whole, not individual banks. This role was confirmed by a 1971 internal Federal Reserve Committee which concluded that

The system should not act to prevent losses and impairment of capital of particular financial institutions...[Rather] the System should intervene... only when liquidity pressures threaten to engulf whole classes of financial institutions whose structures are sound and whose operational impairment would be seriously disruptive to the economy (Board of Governors, 1971, p.19).

All discount window lending is not LLR related. Federal Reserve Regulation A identifies four appropriate uses of the window:

1. Adjustment credit -- short-term credit to meet temporary bank requirements for funds or to cushion persistent deposit outflows.
2. Seasonal extended credit -- to assist smaller depository institutions on a longer-term basis in meeting regular seasonal needs for funds unavailable from regular sources.
3. Extended credit -- assistance to depository institutions when credit is not available from other sources to meet exceptional needs of the individual institutions, such as sustained depository drains and impaired access to money markets, and
4. Emergency credit for others -- advances to individuals, partnerships, and nondepository corporations under unusual and exigent circumstances when credit is not otherwise available

Only the last two types of credit extensions represent LLR safety-net operations. The first two deal primarily with perceived structural market imperfections that affect primarily smaller banks and do not have broader implications. We do not consider them in this paper.

Although the Fed introduced Fedwire connecting all member banks to all Federal Reserve Banks in the late 1910s, it did not become a meaningful part of the safety-net until the 1970s. Fedwire permits banks to make electronic (nonpaper) real-time large dollar payments of funds by transferring among themselves funds they have on deposit at the Federal Reserve Banks. Under Federal Reserve Regulation J, all transfers are *final and irrevocable* when the Fed credits the reserve account of the receiving bank. Starting in the 1970s, the banks' use of Fedwire

increased sharply when the Fed removed its charge for using the wire and the Comptroller of the Currency ruled that Fed funds were exempt from the regulatory ceiling on bank loans to any one borrower (Hancock and Wilcox, 1997). At the same time, banks began increasingly to overdraw their balances at the Fed during the day.

Because the Fed did not monitor the transfer flows in real time, and computed a bank's balance at the Fed only at dayend, little if any attention was devoted to banks overdrawing their accounts during the day, as long as there was no deficit at dayend. The Fed's policy of finality, however, exposed it to potential losses if a paying bank were unable to meet its obligations at dayend. The Fed's assumption of the receiving bank's risk in this case made the large dollar payment system embodied in Fedwire an important component of the safety-net.

## **II. The Good and the Bad of the Safety Net**

Despite the widespread doubts and warnings at the time of enactment, federal government-sponsored deposit insurance was widely acclaimed as a great success for almost 50 years. Bank failures from 1934 through the 1970s were few, runs on banks rare, and general runs into currency virtually nonexistent. Indeed, in their classic book, A Monetary History of the United States, 1867-1960, published in 1963, Friedman and Schwartz argued that

Federal insurance of bank deposits was the most important structural change in the banking system to result from the 1933 panic, and, indeed in our view, the structural change most conducive to monetary stability since state bank notes were taxed out of existence immediately after the Civil War (p.434)

But things changed abruptly in the early 1980s. The flaws of the existing deposit insurance structure became increasingly visible in the form of risk-taking moral hazard behavior by the banks and poor agency behavior by the regulators. The deposit insurance structure

adopted in 1935, which effectively placed the risk of catastrophic loss on the FDIC and the federal government, reduced the incentives of well-run banks to monitor and control risk-taking by badly-managed banks. Although they could protect themselves against loss by limiting their direct exposure to badly-managed or risky banks; their obligation to the FDIC remained the same--1/12<sup>th</sup> of 1% annually-- whether or not the FDIC's insurance fund was in surplus or in deficit.<sup>1</sup>

The introduction of insurance also reduced the incentive of most depositors to monitor their banks or to adjust the interest they demanded on insured deposits for risk—a deficiency that was compounded by the fact that the banks were not charged risk-related insurance premiums that would offset the reduced vigilance of their depositors. Insured banks, accordingly, had strong incentives to take risks. As a result, they increased the risk exposure of their asset and liability portfolios and reduced their capital ratios. The decreased likelihood of the loss of funds by depositor runs permitted economically insolvent or near-insolvent banks to continue operations, and even to grow by expanding their deposit bases.

In effect, much of the responsibility for disciplining banks was transferred from the market place to the regulators, who showed themselves to be poor agents for their healthy bank and taxpayer principals. As a result of political pressure or a reluctance to take unpopular or controversial steps, the regulators often delayed (a policy labeled "forbearance") imposing sanctions on troubled banks and the resolution of insolvent institutions in a timely fashion. In the absence of strong market discipline, governments were also able to use banks to pursue their own economic, political, and social agendas. This often involved the use of credit allocation that both

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<sup>1</sup> However, when the fund was operating in what the FDIC considered was a sufficient surplus, rebates were provided on additional premiums.

misallocated resources and increased the risk exposure of the banks, often eventually resulting in losses, e.g., encouraging thrift institutions to make long-term fixed rate mortgage loans for home building and ownership while funding these loans with short-term deposits and encouraging large banks to make loans to LDCs.

The combination of weak market and regulatory discipline also permitted insured institutions to operate with higher leverage than the market would have permitted in the absence of insurance. But through the 1970s, the adverse consequences were not generally visible, primarily because the banks were sheltered—by relatively primitive telecommunications technology and favorable regulation—from strong competition both among themselves and with other types of financial institutions. This helped to increase the franchise values of banks and had some limiting effect on their risk taking.

Through time, however, advances in technology reduced the effectiveness of protective regulations and ultimately forced their removal. But the resulting deregulation in the 1970s and 1980s was often poorly implemented and accompanied by reduced monitoring and supervision by the regulatory agencies. This permitted some institutions to increase their risk exposures substantially and to engage in what was essentially fraudulent behavior. As a result, many banks, including some very large banks, found themselves with insufficient capital to absorb losses from increased competition, improvident risk-taking, and a more volatile macroeconomy. The last included the bursting of asset price bubbles in real estate, energy, and energy-related products, triggering a series of steep rolling regional recessions. These started in the energy belt among the southwestern states and from 1985 through 1993 traveled to New England, the mid-Atlantic states, and eventually California. In addition, there was a national recession in 1990-91.

During this period, regulators often failed to resolve insolvent institutions promptly, and occasionally even denied the existence of the problem. The possible reasons for this behavior were many: regulators were unprepared and overwhelmed by the large number of insolvencies, they thought the insurance funds were inadequate to resolve all insolvencies, they were concerned about calling additional attention to the problem and igniting widespread public fear and runs, they bowed to political pressures from the banking industry or Congress, and they feared of stains on their own records. Insolvent banks continued to operate by implicitly substituting public capital (the perceived government guarantee) for private capital. But, as the magnitude of the problem increased, the cost of continued regulatory delay became more widely visible. The government's large implicit and hidden liability, equal to much if not all of the negative net worth at insolvent insured institutions, became clearer to the public. Increased transparency and public concern forced the regulators to accelerate the process of formally recognizing and resolving insolvencies. The high cost of the debacle also strengthened attempts to reform the insurance structure, so as to decrease the potential for future moral hazard behavior by banks and for poor agency behavior by regulators.

As in many countries, it became evident that deposit insurance had become a classic example of the well-known time inconsistency problem in public policy. Favorable immediate or short-term effects were more than offset, in time, by later unfavorable long-term effects.

#### Lender of Last Resort and Fedwire Finality

The other two components of the safety-net encountered similar, although less serious, problems. According to both the theory of LLR lending and Federal Reserve statements, emergency lending through the discount window is restricted to solvent banks that are

experiencing liquidity problems. For example, the 1971 Report of the Federal Reserve System's Steering Committee on the Reappraisal of the Federal Reserve Discount Mechanism argued that in providing emergency lending to member banks as lender of last resort:

the Federal Reserve will be prepared to give prompt and sympathetic consideration to providing the needed credit assistance to a troubled member bank, after having obtained the assurance of the chartering authority that the bank is solvent (Board of Governors, 1971, p.19).

A similar consideration was applied to emergency credit assistance to others. Emergency credit should not be extended to insolvent institutions.

Nevertheless, the Fed frequently continued to use its LLR facility to provide support to economically insolvent institutions through the discount window. A study by a congressional committee reported that in the late 1980s some 90 percent of the 418 banks that had received extended emergency credit through the Fed discount window subsequently failed (U.S. House, 1991). Moreover, almost all of these loans went to banks that had received CAMEL (Capital, Assets, Management, Earnings, and Liquidity) ratings of 5 from regulators, the lowest possible rating, so that the Fed knew the borrowing banks' precarious financial position. Recipients of Fed discount window assistance included a number of large banks that eventually failed, such as the Franklin National Bank, the Bank of New England, the Continental Illinois Bank, and the First Republic Bank of Texas. In part, these banks used Fed discount window support to fund withdrawals by uninsured depositors. Since Fed lending is fully collateralized, it effectively stripped the banks of some of their remaining good assets, increasing the eventual cost of the failure to the FDIC as well as the remaining unprotected depositors.

At the same time, until 1986, the Fed permitted bank users of Fedwire to incur unlimited daylight overdrafts free of charge (Hancock and Wilcox, 1996 and Richards, 1995). As noted

above, this shifted to the Fed, and away from receiving banks, the cost of defaults by paying banks. Since the Fed's operating profits are ultimately transferred to the Treasury Department, this effectively put taxpayer funds at risk. It also reduced the need for transacting banks to monitor each other. Through time, as daylight overdrafts increased in volume and value, the Fed first imposed per bank exposure ceilings in March 1986 and then interest charges in April 1994. But the interest rates charged have been and continue to be far below market rates; they have only slowed but not reduced the growth in overdraft volume. Indeed, in 1995, the Fed cut in half a long-scheduled increase in the interest charge because it feared a loss in volume to CHIPS, a private network competitor.

Thus, similar to deposit insurance, by standing ready to provide underpriced support to troubled institutions and reducing the need for market discipline, the Fed's operation of its LLR and Fedwire facilities has expanded the safety-net and contributed at the same time to the fragility of the banking system, the subsequent high number of bank failures, and high cost of banking crisis.

### **III. Significant Reforms in Safety-Net since the 1980s**

The banking and thrift crises of the 1980s increased awareness of the inefficient and costly structure of the existing safety-net and motivated reforms to improve the structure by reducing moral hazard and poor agency performance. The long-run cost of achieving the purposes of the safety-net under the existing structure were recognized as far too high. Although small reform measures were enacted in bits and pieces earlier, the first large grouping of important reform measures was enacted in FDICIA at yearend 1991. At that time, the high and

rapidly rising costs of resolving the financial crisis of the savings and loan industry and the resulting insolvency of FSLIC became increasingly visible. There was also widespread fear that commercial banks and the FDIC might go down the same costly path.

### Deposit Insurance

The enactment of FDICIA in 1991 radically changed the structure of the deposit insurance system that had been adopted in 1935. As noted above, the 1935 plan placed a limit on the assessments that could be required of insured banks. During the long period of banking tranquility after 1935, these fixed assessments permitted the FDIC to accumulate a substantial insurance fund, but placed the risk of catastrophic loss ultimately on the federal government.

The structure adopted in FDICIA in part harked back to the original “permanent” plan in the 1933 Banking Act, which never became operational. That plan provided for insured banks to pay additional assessments as needed by the FDIC, without upper limit (Flood, 1992). The potential effect of this arrangement was to place the risk of catastrophic losses on the banking industry, since the FDIC was empowered to collect additional assessments as needed to cover its losses and maintain its solvency.

FDICIA reverted to this structure. It authorized the FDIC to set semiannual assessments on insured banks—“when necessary” and without explicit limit as to amount—in order to maintain a “reserve ratio” equal to at least 1.25% of estimated insured deposits. If the reserve ratio declines below the designated amount, the FDIC is authorized to set assessment rates “that are sufficient to increase the reserve ratio...to the designated reserve ratio not later than 1 year after such rates are set” (12 U.S.C. 1817 (a) (3)(A)). Because the premiums are charged on all deposits at domestic offices while *de jure* insurance covers only the first \$100,000 in any

account, large banks pay proportionately higher premiums than small banks and may be expected to be most sensitive to premium increases. The Deposit Insurance Act (DIFA) of 1996 amended FDICIA to require that, if the reserve ratio rises above 1.25%, premiums may be charged only the riskiest insured institutions. Currently, less than 10 percent of all insured institutions holding less than 5 percent of all domestic deposits are assessed premiums. Thus, with the fund effectively fixed at a specific percent of bank deposits, losses will have to be paid by the remaining insured institutions on a pay-as-you-go basis. In effect, there is no "fund."

To deal with the possibility that catastrophic losses might deplete the FDIC's resources faster than it can collect assessments from the banking industry, FDICIA provides the FDIC with a \$30 billion line of credit at the Treasury. Its borrowings under this line become a liability of the borrowing insurance fund (12 U.S.C. 1824(a)) and the Secretary of the Treasury may not make this loan unless the FDIC demonstrates that its income from assessments will be sufficient to amortize the outstanding principal and pay the interest on the loan (12 U.S.C. 1824(c)(1)). The FDIC is authorized, in turn, to impose special assessments on insured institutions "to repay amounts borrowed from the Secretary of the Treasury" (18 U.S.C. 1824(a)(6)(A)(i)).

In effect, this structure places the risk of losses on insured banks rather than the federal government. The FDIC effectively becomes primarily a collection agency and an intermediary between the banking industry and the U.S. Treasury. Thus, it is no longer totally accurate to describe insured deposits at banks as "federally insured"; the resources of the banking industry stand behind the FDIC.

The deposit insurance law does retain language that appears to suggest a continued federal government obligation. For example, 12 U.S.C. 1828 (a) (2) introduced in the Financial

Institutions Reform, Recovery and Enforcement Act (FIRREA) of 1989, states that each insured bank must display at its place of business "a statement that insured deposits are backed by the full faith and credit of the United States Government." This language, however, which preceded the FDICIA reforms is not by itself a full faith and credit guarantee of insured deposits. At most, it creates a moral obligation of the United States Government. As a practical matter, this obligation would exist anyway, since it is not conceivable that the United States Government would permit insured depositors to suffer losses in a government-sponsored deposit insurance scheme. However, after FDICIA, the United States Government has no obligation to make any payments to insured depositors unless and until the resources of the banking industry as a whole are fully exhausted and no obligation -- moral or otherwise -- to make payments to uninsured depositors or other creditors.

Since under this new FDICIA structure well-managed banks are now responsible for losses caused to the deposit insurance fund by badly managed banks, they have an incentive to monitor and control the risks taken by other banks. However, the law does not yet provide them with the tools to implement this incentive.

#### Restrictions on Daylight Overdrafts on Fedwire

As noted, since 1986 the Federal Reserve has required users of Fedwire both to apply caps on individual bank credit exposures to other banks and to pay interest on daylight overdrafts. The current interest charge on such overdrafts is 0.38%. The introduction of these two measures has decreased the relative volume of daylight overdrafts somewhat and thereby also the risk exposures of banks to other banks (Richards, 1995).

#### Restrictions on Too-Big-To-Fail

The safety-net has suffered mission creep through time. Increasingly, it protected *de jure* uninsured as well as insured depositors, and even other creditors of banks considered by the regulators as "too-big-to-fail." In reality, large banks were permitted to fail but some or all *de jure* uninsured stakeholders were frequently protected. That is, these banks were "too-big-to-impose-losses-on-uninsured-depositors." The Continental Illinois Bank in Chicago in 1984 was the last insolvent bank that was not legally failed at the time of resolution. All later-resolved banks up to the enactment of FDICIA were failed, but *de jure* uninsured depositors and at times other creditors—including Fed funds sellers and depositors at overseas offices—were protected against loss. At the same time, the definition of "big" was progressively reduced so that in 1990 it encompassed banks as small as the National Bank of Washington (D.C.), which had assets of only \$2 billion and was only the 250th largest bank in the country. Although losses to its uninsured depositors were unlikely to trigger repercussions elsewhere, the bank's owners and large depositors were politically well-connected. The bank was "too- well-connected-to-fail."

The resulting question of fairness in the disparate treatment of large depositors at small and large banks, as well as the increasingly costly moral hazard and agency problems for large banks, resulted in the inclusion of restrictions on "too-big-to-fail" in FDICIA. FDICIA prohibited the FDIC from protecting *de jure* uninsured depositors in resolutions that resulted in losses to the FDIC, but provided a systemic risk exemption in emergencies, when the failure to protect these depositors "would have serious adverse effects on economic conditions or financial stability." But invoking this exemption requires the written recommendation of two-thirds of the FDIC's board and the Federal Reserve Board of Governors, and the approval of the Secretary of the Treasury in consultation with the President of the U.S. The Secretary of the Treasury must then file a written notice with Congress, stating the basis for the determination.

Moreover, if the FDIC suffers a loss in the process of protecting the uninsured depositors at presumably very large banks, it must recover the loss through a special assessment on all other banks, according to their total assets. This should again provide an incentive for at least the larger banks to lobby against assistance to their financially strapped competitors. In addition, the General Accounting Office (GAO) is required to prepare a written report evaluating the basis for the determination and its impact on the behavior of other banks and uninsured depositors. These provisions are likely to make regulators more cautious in invoking the too-big-to-fail exemption. Indeed, since the enactment of FDICIA, no bank has been declared too-big-to-fail, although no really large money center bank has failed (Benston and Kaufman, 1998).<sup>2</sup>

#### Restrictions on Federal Reserve LLR Lending

Evidence that the Federal Reserve had lent widely through the discount window to insolvent and near-insolvent banks in the 1980s, and that this increased the cost of the banking crisis, led to the inclusion of provisions in FDICIA that would restrict Fed discount window lending. Such lending to banks was limited to no more than 60 days in any 120 day period unless its primary regulatory agency or the chairman of the Board of Governors certifies in writing after an examination that the bank is viable.

Moreover, if additional credit is extended to a bank that is classified as "critically undercapitalized" beyond 5 days after the bank is so classified, and the bank subsequently fails with a loss to the FDIC, the Board of Governors is required to reimburse the FDIC in an amount equal to *the lesser* of (1) the loss that the Fed would have suffered on the increases in the amount

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<sup>2</sup> The Depositor Preference Act of 1993 has further decreased the likelihood that nondeposit creditors, e.g., Fed funds sellers or depositors at overseas offices, would be protected by subordinating their claims to uninsured depositors at domestic offices and the FDIC (Kaufman, 1997).

of loans made in the absence of any collateral pledge (in effect, as if it were an unsecured loan) or (2) the interest the Fed received on such an increase in lending. The latter is almost always sure to be smaller and thus be the Fed's cost of lending to failed banks. Any loss suffered by the Fed in lending to failed banks must be reported to Congress no later than six months after incurring the liability.

#### Curtailment of Moral Hazard Behavior by Banks

FDICIA attempts to reduce excessive bank risk-taking by both increasing the cost and decreasing the opportunity for moral hazard behavior by banks. Since weak or insolvent banks have an incentive to "gamble for resurrection," FDICIA attempts to reduce both the probability that a bank will approach insolvency and the length of time it may operate in this condition. The probability of insolvency is reduced by requiring the regulators to impose timely and progressively harsher sanctions as a bank's capital-asset ratio deteriorates through five capital levels that reflect increasing financial weakness. The five capital levels and representative sanctions that may or must be imposed by the regulators in the form of prompt correction action (PCA) are shown in Table 1. Regulators may also impose additional discretionary sanctions to increase the cost of declining performance and encourage the bank to mend its ways and return to profitability. The length of time a bank may operate in weak condition is reduced both by the cost of these sanctions to the bank and a "closure rule" that requires the regulators to resolve an institution in a timely fashion once its capital-asset ratio has declined below a low positive tripwire value.

#### Curtailment of Poor Agency Behavior by Regulators

The mandatory timely action required of regulators as a bank's capital declines is also intended to prevent or limit poor agency behavior by making it difficult for regulators to delay corrective action. The sanctions are designed to be the same or similar to sanctions that the market imposes on financially deteriorating firms not protected by a safety-net, so that regulatory discipline standing in the shoes of market discipline will mimic market discipline. This regulatory regime promotes rules to equal standing with discretion. By calling attention to the threat of harsher mandatory sanctions if improvements do not occur, the regime strengthens bank responses to discretionary sanctions and increases their effectiveness.

#### **IV. Necessary Remaining Reforms**

##### Deposit Insurance

As noted above, the FDIC and the federal government no longer bear the risks of bank failures associated with deposit insurance, unless the banking system's resources are totally exhausted. These risks now fall on solvent insured banks. The FDIC remains as the principal policy-making institution, and as an intermediary between the banks that pay for the losses and the depositors that receive insurance coverage. However, as government funds are not likely at risk, this structure reduces the incentives of the FDIC to prevent losses. Although FDICIA sets up mandatory requirements for action by regulators once specific data on banks becomes available, recent events have shown that the regulators can and do at times question the validity of this data and defer action. Without strong incentives to act on a timely basis, the regulators may not be prepared to take the difficult steps mandated by FDICIA.

The most effective cure for this problem would be to place responsibility for implementing FDICIA on an agency responsible to the insured banks—the ultimate payors in the

current system—rather than to Congress. The FDIC could remain as a general oversight body, much the way the Securities and Exchange Commission oversees the activities of the National Association of Securities Dealers in implementing securities laws and regulations.

Such a reform, for example, would permit the banks to establish a truly risk-based premium system that imposes significantly higher costs on banks that exhibit risky behavior whenever the fund declines below 1.25% of insured deposits and premiums may again be charged the majority of the insured banks. Alternatively, the current legislation could be modified to remove the statutory ceiling of 1.25% and permit increases in the fund commensurate with the risk exposure of the banks. This would permit more effective use of risk-based premiums.

Although Congress has authorized the FDIC to establish a risk-based insurance premium, the agency did not implement the steeply graduated structure that would be necessary before the statutory maximum reserve ratio was reached and premiums on most banks suspended. This failure should not be surprising in light of the political opposition such a system would engender from weaker banks and the weak incentives of the FDIC to press forward. On the other hand, insured banks that will ultimately bear the losses associated with a poorly administered deposit insurance system have strong incentives to establish and enforce an effective risk-based premium, as well as other mechanisms for controlling excessive risk taking by their fellow insured banks. For more than 50 years, such a structure of self-monitoring and regulation has functioned well in the securities industry, where the National Association of Securities Dealers (NASD), an industry group to which all securities brokers and dealers must belong, bears the principal responsibility for investigating the conduct of members and enforcing both the securities laws and the Rules of Fair Practice of the Association.

One of the most effective and necessary future reforms of the U.S. deposit insurance system would be changes in law permitting the banking industry itself to take control of the liability placed on insured banks by FDICIA, even though the FDIC may remain as the *prima facie* insurer.<sup>3</sup>

### Lender of Last Resort

Although, as discussed earlier, FDICIA requires the Federal Reserve to pay interest to the FDIC when a bank to which it lent at the discount window fails with a loss to the FDIC, the interest cost is very small and unlikely to deter Fed lending to troubled institutions—apart from embarrassment when the bank's failure and the Fed's loss are reported to Congress. Earlier draft versions of FDICIA had stronger penalties for Fed lending to banks that subsequently failed, with losses to the FDIC. The Fed would have had to share in the loss. This would have been achieved by requiring the Fed to lend on a noncollateralized basis and have equal standing in liquidation with uninsured depositors, the FDIC, and all other creditors. The directors of each Reserve Bank, who need to approve all discount window loans, may reasonably be expected to be more cautious in making loans on under these conditions—rather than on a fully collateralized basis—particularly to troubled institutions. Federal Reserve officials lobbied hard against such a provision and were successful in weakening it significantly to the current lower penalty. This reform should now be adopted.

In addition, except in unusual circumstances, at least in the U.S., Fed LLR support should be restricted to open market operations to the market as a whole. This policy in itself would

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<sup>3</sup> Clearly, in such a structure, it would be necessary to prevent anti-competitive behavior and other abuse.

eliminate the moral hazard consequences of Fed lending to insolvent or failing institutions and much of the controversy over whether large banks are considered too big to fail.

### Fedwire

The Fed's risk exposure on Fedwire can be diminished by reducing the subsidy to the banks in the form of below market interest rates on daylight overdrafts. The interest rate charged banks that incur intraday overdrafts should be increased to market levels. In addition, the possibility of eliminating daylight overdrafts altogether, by transmitting only good funds (payment vs. payment or payment vs. delivery) on Fedwire should be explored. This would shift all the credit risk to the private sector, where it can be priced more efficiently. Financial markets in the U.S. today appear sufficiently broad and mature to develop an efficient and safe intraday market.

## **V. Conclusions**

The safety-net affecting commercial banks and thrift institutions the United States contained a number of flaws that through time increased rather than decreased the stability of the financial system, at considerable cost to the U.S. economy and taxpayers.<sup>4</sup> Important

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<sup>4</sup> This conclusion is not universally accepted. Federal Reserve Chairman Alan Greenspan (2000) recently argued that

the subsequent evidence appears persuasive that the combination of a lender of last resort (the Federal Reserve) and the federal deposit insurance have contributed significantly to financial stability.

But he admits that such

government intervention has not been without cost. The federal safety net for banks, which clearly diminishes both the incentive for, and the effectiveness of, private market regulation, creates perverse incentives for some banks to take excessive risk. Indeed, the safety net has required that we substitute more

improvements were made in FDICIA in 1991, but much was left undone. It is now time to make the additional and necessary improvements in the safety net's structure. While arguments can be made that the government safety-net creates more harm than good and that bank failures were less costly before the safety-net than afterwards and thus for elimination of the safety-net as a government responsibility, that is at the very least politically infeasible at this time (Calomiris, 1999 and Wallison, 2000). Although, as noted above, the deposit insurance system has been effectively eliminated as a government liability, the Fed's LLR responsibilities in particular are still regarded in Congress and in the financial markets generally as necessary for financial system stability. Instead, we recommend a number of reforms to discourage moral hazard risk-taking behavior by banks, and poor agency behavior—principally forbearance—by regulators.

Now that the deposit insurance system in the U.S. is effectively a private system, with all costs borne by the member institutions until their resources are exhausted, control over its management should be shifted from the FDIC to the banks and thrifts that are ultimately responsible for its losses. Among other things, this will create the necessary incentives for the introduction of a true risk-based insurance premium structure and impose greater healthy bank discipline on troubled banks. FDICIA's mandatory regulatory sanctions on troubled insured institutions, including timely resolution of insolvent institutions, and its restrictions on protecting uninsured depositors at large banks that were once deemed too-big-to-fail are more likely to be strictly enforced by an agency responsible to the healthy banks that will bear the costs rather than a government agency that has few incentives to make politically difficult decisions.

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government supervision and regulation for the market discipline that played such an important role through much of our history.

Federal Reserve LLR liquidity should be provided almost exclusively through open market operations to the market as a whole and, if directed at individual institutions, should be provided only on an uncollateralized basis. Thus, the Federal Reserve will share in any loss resulting from the failure of the borrowing institution after it has been kept afloat by Fed lending. Finally, we recommend that the Fed charge a market rate on daylight overdrafts through Fedwire, and seriously explore permitting only good funds be transferred on Fedwire, thus eliminating daylight overdrafts entirely.

The reforms to the safety-net in the U.S. introduced in FDICIA and the further improvements recommended in this paper may serve as a useful guide or template for reform of the safety-net in other countries.

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**Table 1**

**SUMMARY OF PROMPT CORRECTIVE ACTION PROVISIONS OF THE FEDERAL  
DEPOSIT INSURANCE CORPORATION IMPROVEMENT ACT OF 1991**

Zone	Mandatory Provisions	Discretionary Provisions	Capital Ratios (percent)**		
			Risk Based Total	Tier 1	Leverage Tier 1
1. Well capitalized			>10	>6	>5
2. Adequately capitalized	1. No brokered deposits, except with FDIC approval		>8	>4	>4
3. Undercapitalized	1. Suspend dividends and management fees 2. Require capital restoration plan 3. Restrict asset growth 4. Approval required for acquisitions, branching, and new activities 5. No brokered deposits	1. Order recapitalization 2. Restrict inter-affiliate transactions 3. Restrict deposit interest rates 4. Restrict certain other activities 5. Any other action that would better carry out prompt corrective action	<8	<4	<4
4. Significantly undercapitalized	1. Same as for Zone 3 2. Order recapitalization* 3. Restrict inter-affiliate transactions* 4. Restrict deposit interest rates* 5. Pay of officers restricted	1. Any Zone 3 discretionary actions 2. Conservatorship or receivership if fails to submit or implement plan or recapitalize pursuant to order 3. Any other Zone 5 provision, if such action is necessary to carry out prompt corrective action	<6	<3	<3
5. Critically undercapitalized	1. Same as for Zone 4 2. Receiver/conservator within 90 days* 3. Receiver if still in Zone 5 four quarters after becoming critically under-capitalized 4. Suspend payments on subordinated debt* 5. Restrict certain other activities				<2***

\* Not required if primary supervisor determines action would not serve purpose of prompt corrective action or if certain other conditions are met.

\*\* Except for critically undercapitalized, values set by bank regulators.

\*\*\*Tangible equity

SOURCE: Board of Governors of the Federal Reserve System.