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**Deposit Insurance in a Deregulated
Financial Environment:
The Case for Reform**

by

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Research Paper

Federal Reserve Bank of Dallas

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October 1983

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Background

Federal deposit insurance was authorized by the Banking Act of 1933 to restore public confidence in the U.S. banking system. The primary objective of deposit insurance has been to maintain financial stability by forestalling deposit runs on commercial banks. This has been accomplished by allaying depositor fears of capital loss from bank failure. It has also satisfied a related but secondary objective of protecting small depositors from incurring financial loss from a bank failure.

Despite initial concerns to the contrary, the federal deposit insurance system has worked remarkably well in reducing the number of bank failures and in eliminating depositor loss. The total number of insured bank failures since 1933 has not greatly exceeded the average number of bank failures in any single year during the 1920s and is far below the failure record in the depression era of the early 1930s. Moreover, between 1933 and 1982, nearly 99 percent of all deposits in insured banks that failed were recovered by depositors. By most standards this would be considered an extremely successful program.

The FDIC was created, however, as part of financial legislation to constrain risk taking by banks. Besides establishing deposit insurance, the Banking Act of 1933 prohibited banks from, among other things, underwriting corporate securities, from paying interest on demand deposits, or from paying interest on savings and time deposits in excess of allowed limits. These asset and liability constraints, together with restrictive chartering policies, and limits to geographic expansion imposed by the

McFadden Act of 1926, were intended to ensure safe banking by restraining competition and thereby reducing incentives to undertake excessive risk. This combination of banking policies can be referred to as an era of binding regulation. By the mid-1960s, however, financial innovation and technological change initiated a period of gradual or de facto deregulation. The passage of the Garn-St. Germain bill ushered in an era of de jure financial deregulation. Financial institutions enter this new era with banks and thrifts experiencing the severest stress in the post-War period. Increased attention is being given to conditions of financial stability. There is some concern that the FDIC insurance has inadvertently contributed to current problems. While deposit insurance has prevented bank runs, it has also provided incentives to accept increased risk. In the next section we highlight some of the current problems. We then consider how FDIC insurance may have contributed to these problems.

Financial Sector Weakness: Cyclical or Systemic?

We have just emerged from the longest, and by some measures, the severest post-War recession. It is not surprising, therefore, that financial sector problems have emerged. In economic downturns, symptoms of financial stress include sharp adjustments in risk premiums and yield curve configurations, an increase in the number of problem credits, and a concomitant increase in the number of troubled financial institutions. These symptoms, however, do not necessarily reflect systemic or structural weakness. Bankruptcies of financial and nonfinancial firms will rise during a recession. This is part of a normal market process, promoting

efficient utilization of valuable resources. The magnitude of current problems, however, is unique.

Two problems that developed during the last few years are especially noteworthy. First, the severe earnings pressure experienced by thrifts has raised concerns about the long-term viability of that industry. Second, the portfolio of troubled international bank loans has heightened concerns about the capital adequacy of the nation's largest multinational banks. These problems already have resulted in government sector involvement exceeding previous post-depression involvement. The severity of these problems raise long-term questions about the institutional environment that motivated financial institutions to undertake what, in retrospect, turned out to be an excessive amount of interest-rate and credit risk, respectively.

The above-mentioned problems appear to reflect long-term structural deficiencies in addition to cyclical factors. These emerged in an era of partial deregulation. Accordingly, it is important to examine whether they resulted from the increased freedom gained from deregulation, or whether they resulted from remaining regulatory policies. Analysis of this issue will help determine the long-run implications of financial deregulation. It will also help determine the impact of FDIC insurance on bank behavior.

Risk Exposure in a Deregulated Financial Environment

There are many different types of risk to which financial institutions are exposed. In this section, incentives to accept and ability to monitor exposure to interest-rate and credit risk are examined.

With respect to interest-rate risk, the gradual phaseout of Regulation Q generated short-run transitional costs. These may have augmented recent financial-sector problems. The thrift industry problem underscores this point. Asset powers remained severely constrained while liability constraints were being removed. Although quantitatively of different magnitude for banks, constraints on asset powers, particularly pricing constraints from binding usury controls, also reduced banks' ability to control exposure to interest-rate risk. But transitional costs of moving to a deregulated environment ought not permanently burden financial institutions. New asset and liability products already are being designed to control interest-rate risk. Distinctions between banks and thrifts are blurring. The financial structure resulting from these changes should be less exposed to unwanted interest-rate risk from asset-and-liability maturity mismatches. Individual cases of sizeable financial loss from mismatching will always exist but systemic weakness from inappropriate asset-liability mismatching is less likely. The greater potential for independent decision-making in a deregulated environment will help to insulate the economy from systematic error.

Turning to credit risk, the ability to control exposure to credit risk also is likely to improve in a deregulated financial environment. Concerns about excessive exposure to credit risk in recent years have focused on the impact of interest-rate volatility. Financial firms are relying more heavily on variable-rate loans to reduce exposure to interest-rate risk. By transferring interest-rate risk to their borrowers, they may have also inadvertently increased their own exposure to credit

risk. As financial regulations are removed, additional risk may be assumed by the deregulated firms. We can expect borrowing and lending patterns to be different in a deregulated environment. It is not clear, however, that financial firms would be less able to evaluate their exposure to credit risk from interest-rate fluctuations than from other factors. Once participants expect interest rates to move more freely, actions can be taken to offset the impact of these fluctuations. Similarly, it is not clear that nonfinancial firms will be less able to control their exposure to debt. This is particularly true since exposure to old-style credit crunches would be reduced with financial deregulation.

The benefits from more efficient pricing and reductions in credit shortages should improve ability to control exposure over both interest-rate and credit risk in a deregulated environment. Existing financial safety-net mechanisms, which were designed to maintain financial safety in a heavily-regulated financial environment, will enable financial institutions to incur more risk than they would be able to undertake if added risk were priced appropriately. It is not deregulation alone, then, that has brought about current financial problems with risk exposure. Nor will deregulation alone, augment problems in the future. It is the combination of subsidies to risk taking, coupled with new-found freedom to assume risk. In this paper we focus on one of these subsidies to risk taking, federal deposit insurance.

Deposit Insurance with Financial Regulation

Under the current framework, deposit accounts at insured institutions are legally protected up to \$100,000. The FDIC charges a premium of one-twelfth of one percent of all domestic deposits at each insured institution. The FDIC itself has recently pointed to the major flaw in the deposit-insurance system.

Since the FDIC began operations, some portion of failed bank situations have been handled in ways that have provided de facto 100 percent insurance coverage to all depositors and general creditors.... Especially in large banks, there is the perception among depositors of minimal risk of loss, and therefore there are few incentives₁ to choose between banks based on financial condition.

The FDIC is describing its Purchase and Assumption (P&A) policy in settling with creditors of failed banks. All liabilities, including uninsured deposits, are transferred to an assuming bank. If accomplished overnight, a P&A transaction avoids any interruption in availability of funds to a depositor. Until Penn Square, P&A was virtually always used in settling claims for larger institutions. Depositors were paid off only in the case of some smaller failed institutions. Only then were depositors with accounts in excess of \$100,000 at risk. And smaller institutions generally are less reliant on such large deposits. The FDIC's handling of the Penn Square failure introduced some uncertainty, as large depositors were left partially at risk. Penn Square involved, however, potentially severe litigation which precluded assumption by another bank.

Large depositors in major banks still have good reason to believe that they are fully insured. As a result, depositors are less concerned with the condition of the banks at which they hold their deposits than would otherwise be the case.² Accordingly, they demand a smaller risk premium in return for placing deposits at troubled institutions.

This places conservatively managed banks at a competitive disadvantage vis-a-vis the more aggressive risk takers. Normally, investors require compensation for assuming additional risk. Conversely, they are satisfied with a smaller pecuniary return, if they are less exposed to capital loss. With the current deposit-insurance system, however, depositors need not settle for a lower return in order to receive a guaranty effectively backed by the U.S. Treasury.

Less conservatively-run banks can, accordingly, assume greater risk in anticipation of earning larger profits for stockholders. If they pay a slightly higher rate for funds, this rate is not proportional to the risks being incurred. It is in this sense that FDIC insurance can be said to subsidize risk taking by insured institutions. The more aggressive institutions do not bear the full cost of their risk-taking behavior. Consequently, they can engage in more of it than otherwise be the case. This process produces a negative externality. The externality is well known in the insurance literature as moral hazard. The cumulative effects of these individual actions make the financial system as a whole less stable. This increases the FDIC's potential exposure to loss, and, at one remove, taxpayers' liability.

General principles of insurance can be readily used to analyze the impact of FDIC insurance on bank behavior. Competitively supplied insurance is priced on the basis of the probability of claims by covered policyholders. The insurer bases his premium on the unavoidable or irreducible risk of a loss. Actual or observed losses are, however, the result both of unavoidable risk (e.g., hail damage to a house), and human decisions (e.g., failure to take ordinary precautions against hail damage). The latter type of risk tends to increase if an individual is insured against loss. That is, the provision of insurance changes the insured's behavior. This, in turn, increases the insurer's exposure to loss, over and above what he anticipated in setting rates. This dilemma is moral hazard. Insurance companies attempt to avoid or control moral hazard in a number of ways. Aside from being able directly to control policyholders' activities, insurance companies rely on four pricing policies to avoid the moral-hazard problem.

First, an insurance company may require the policyholder to coinsure, by assuming some of the risk. There is coinsurance when the covered party has a share in losses. For example, many medical benefits cover only 80 percent of losses. Because the insured party shares in losses, he has an incentive to adopt precautionary measures to avoid them. Second, the insured may be required to pay a deductible amount on each loss, or on the total of losses in a year. The rationale is similar to that of coinsurance: to induce the insured to avoid losses. Third, insurers charge more for high-than for low-risk coverage. Sky-divers and race-car drivers pay more for accident and liability insurance than do

bankers and accountants. This prices risk taking incrementally; the higher the risk incurred, the more an insured individual must pay. The insured accordingly has added incentive to curtail or control his exposure to risk. Fourth, insurers limit their coverage, placing an upper bound on exposure to moral hazard [Arrow(1971), pp. 143-44].

The FDIC uses none of these pricing techniques to avoid moral hazard. First, there is no coinsurance. At least up to statutory limits, coverage is 100 percent of losses. In practice there is 100 percent coverage of all deposits at larger institutions and a perception that there is 100 percent coverage at all institutions. Second, there is no deductible amount. Third, the insurance premium is unrelated to risk. Fourth, there are no stated limits on FDIC liability to a covered institution. Since failing institutions frequently increase their liabilities significantly just prior to being closed, this exacerbates the FDIC's loss.

The FDIC's control mechanism has been to rely on regulation and supervision of bank behavior. In the era of binding regulation, restrictions existed on both the asset and the liability side of banks' balance sheets. Entry restrictions (McFadden), limitations on costs (Regulation Q), and asset restrictions (Glass-Steagall) combined to restrain risk taking. In the context of the whole regulatory environment, the FDIC was able to minimize the losses that would otherwise have been generated by its pricing of deposit insurance. In a real sense, the alternative has been regulating and supervising behavior as an alternative to pricing risk [cf. Kareken(1983)].

It has been suggested that increased supervision, or informal regulation of bank behavior, could be used as a substitute for formal regulatory constraints as the latter are removed. Bank supervision is a nonmarket or nonprice behavioral control mechanism. As such, it is a form of regulation. A key problem with this supervisory process is that it primarily involves ex post rectification of inappropriate banking practices rather than ex ante control [Bentson, (1983), pp. 12-14]

In contrast, constraints imposed by market prices mainly operate before the fact. Price signals provide information about risk taking. These signals encapsulate relevant information possessed by all market participants, not merely the judgment of individual supervisors. Further, pricing is a continuous process, while supervision is episodic and sporadic. Prices not only provide information about risk, they also price risk and constrain behavior. When risk is priced, the risk taker incurs rising costs as he incurs additional risk. He thereby is induced to avoid incurring excessive risk. In fact, this incentive structure is perhaps the strongest argument in favor of prices over supervision. Unless the income of supervisors is directly related to their predictive success, they will tend to have less incentive to uncover risk than a professional trader possesses. Because of this incentive structure, financial markets generally uncover even "nonpublic" information, pricing assets accordingly. For instance, markets generally incorporate the effects of changes in S&P and Moody bond ratings before a rating change is announced.

Markets participants are often surprised by events, and register their surprise by creating sudden capital gains and losses. Even in such

cases, however, price movements have allocational significance. They provide the relevant signals (and inducements) to market participants to rectify mistakes. For instance, a firm whose stock price is driven down by unfavorable news will face higher capital costs until it corrects the problem in question. Thus even capital gains and losses function as signals and incentives which affect future actions, not merely as after-the-fact "punishments." In relatively few cases, will market prices only register the effects of irreversible mistakes.

Banking is now being formally deregulated. For over a decade, however, entrepreneurial innovation has been diminishing the effectiveness of regulation. In a binding Regulation Q environment, coupled with branching limitations, banks were inhibited from aggressively binding for funds. These constraints helped prevent economic rents from being dissipated by competition (Peltzman, 1965). These restrictions also reduced incentives to seek profits at the expense of incurring more risk. Overtime the more aggressive banks did develop techniques to circumvent restrictions in order to improve their relative profit positions. These more aggressive innovators captured a larger share of banking activities. This process led to more risk taking. As additional liability constraints and branching restrictions are removed, competitive pressures to accept risk will increase. The system of deposit insurance, however, has not changed with the regulatory environment. In the new banking environment, market discipline will play a larger role in controlling financial

behavior. Financial safety mechanism, such as deposit insurance, should send pricing signals that reinforce rather than conflict with conventional profitability constraints. Some reform of deposit insurance is therefore necessary, a position that the FDIC itself supports.

The FDIC Proposal for Deposit Insurance

The FDIC has proposed specific changes to the deposit-insurance system. In this section we focus on its recommendation for changing the current premium structure.^{3/} The agency recommends a system of variable-rate premiums based on three risk categories: normal, high, and very high. The system would rate capital adequacy, and credit and interest-rate risk. The FDIC has divided the categories so that the vast majority of banks would be classified as normal. At least initially, these banks would pay the same effective premium as they do under the current system. The high risk category would consist of banks with high exposure either to interest-rate or to credit risk. The very-high risk class would include banks with high exposure to both interest-rate and credit risk. Institutions with dangerously low capital ratios would also fall into the very-high risk class.

The FDIC now normally rebates 60 percent of the premium after deducting operating expenses for the year. Banks in the normal category would continue to receive the full rebate. Banks in the high-risk category would lose half the rebate, while institutions in the very high-risk category would forfeit the entire rebate. The effective premium, then, increases for banks in successively riskier categories.

In the next section, we present an analysis of the FDIC proposal. The analysis accepts the agency's assumption that insurance premiums ought to take risk into account. It is argued, however, that the FDIC must go further than suggested in its proposal to implement effectively the goal of pricing risk.

Deposit Insurance: Competition or Monopoly?

Pricing of risk is a feature of competitively supplied insurance. Categorization and pricing of risk evolves from competitive interaction among suppliers and demanders of insurance. The FDIC recommends implementing this feature or outcome of competitive insurance markets, but doing so in the absence of competition.

In its proposal, the FDIC raises questions of both equity and resource allocation. For reasons of equity, the agency proposes an appeal procedure for insured institutions categorized as risky. It recognizes that these institutions have no recourse to other insurers in the FDIC's variable-premium system. This problem is pervasive and far reaching. Not only is the FDIC a monopoly provider of insurance, but it will continue to possess at least some of the regulatory powers of a governmental agency.⁴ Thus, what would be a guideline or standard procedure, if made by a private insurance company, becomes a regulation when issued by the FDIC. A private insurer inspects procedures and recommends changes. By its position as a regulatory agency, the FDIC supervises and prescribes. Private firms can generally negotiate prices, adapting to specific circumstances of their customers.⁵ As a governmental instrumentality, the FDIC cannot and ought

not be flexible in this way. For a governmental agency to do what competitive firms do every day would be (correctly) labeled discriminatory.

In varying prices to reflect different circumstances, firms use subjective assessments and judgement. In the case of insurance, the result of this process is the rich and varied structure of insurance that we observe. These judgments typically have a sound commercial basis, but often could not be adequately explained if required to meet the test of legal proof.⁶

Competition provides individuals with alternatives. For instance, a particular insurance company might be overpricing a certain risk. Ordinarily, there is no harm to purchasers of insurance. They can approach other insurers. If all offers are unsatisfactory, they can self-insure.⁷ In a competitive environment, an overpriced service is not grounds for litigation, but a motivation to search for a better offer. Even elaborate appeal procedures do not duplicate this freedom, which is a major benefit of competition.

This equity issue has consequences for resource allocation. Sensitivity to the lack of recourse for banks has led the FDIC to be sensitive about overpricing risk. For instance, the agency asserts that "standards should be set to minimize the extent to which errors of overpricing risk occur."⁸ There are, however, two potential pricing errors: risk may be overpriced or it may be underpriced. If the probability of overpricing is minimized, more underpricing will occur. This would, however, undermine the FDIC's rationale for introducing variable premiums in the first place. In fact, it could aggravate the

moral-hazard problem. In developing its proposal, the FDIC suggests that the normal premium might be lowered below current levels. By design most banks would fall into the normal category, and thus could pay less for insurance. Even with risk priced at the margin, banks may forego less for incurring risk than is currently the case. If they can earn more profits by incurring more risk, then greater risk will be undertaken.

The FDIC presently employs a five-category rating system for insured institutions (the CAMEL system). This rates capital, assets, management, earnings, and liquidity. CAMEL not only grades risk more finely than the proposed system for deposit insurance, but also assesses more factors.⁹ The FDIC is reluctant to use CAMEL because of its concerns with its position as a regulatory agency. A bank's CAMEL rating incorporates examiners' subjective assessments. If employed in pricing insurance, the judgmental aspects might subject the FDIC to litigation. The agency believes that the bank examination system may become more adversarial.¹⁰ By ignoring available information, however, the FDIC may increase the potential for resource misallocation and moral hazard. In terms of resource allocation, the FDIC faces the following calculation problem. It seeks the "right" price in the absence of a market. To judge that risk is in fact overpriced, one must have a reference point ("Overpriced", relative to what?). Without a market test, however, the agency has almost no basis on which to decide the correctness or appropriateness of its premiums.

Competitive markets reveal the appropriateness of prices by the profit and loss test. Firms earning losses are underpricing output

relative to costs. Firms earning profits face increased competition unless they lower prices. Indeed, competitive markets both define the meaning of, and reveal the degree of appropriateness of prices. If firms cannot calculate profits, then they cannot price consistently. Accordingly, they cannot even approximate a market test. The FDIC presently finds itself in this situation.

The FDIC is concerned about the inequities and misallocations that can be generated by inappropriately pricing risk. Their proposal, however, does not adequately address these problems. Without a profit and loss test all that can be tested is if it has severely underpriced risk. And this can only be revealed after the fact. If there is an institutional bias, it is toward underpricing risk.

In the next section, an alternative proposal is presented. The proposal involves introducing competition in deposit insurance.

Competitive Deposit Insurance

At present, private insurance companies would not be in a position to provide a substantial portion of deposit insurance.¹¹ If a competitive system of deposit insurance is viewed desirable, some transition program is needed so that firms could gradually enter as competitors to the FDIC. During the transition phase, the FDIC would remain the dominant provider of deposit insurance. Thereafter, it would be among the competitive insurers of deposits.

A number of different policy changes could be introduced to foster competition. To facilitate discussion, four changes are suggested. The

first policy recommendation is the most important. It alone should be sufficient to reduce the moral hazard problem and initiate a transition to a competitive system of deposit insurance. Moreover, even if policymakers do not support competitive deposit insurance, implementation of the first and third policy recommendations would reduce moral hazard.

1. Eliminate de facto coverage of deposits above statutory limits, reduce coverage limits and introduce some form of coinsurance;
2. Eliminate the statutory requirement that nationally chartered and state-chartered member banks and banks associated with bank holding companies purchase deposit insurance from the FDIC;
3. Impose a requirement that the FDIC utilize the best available information to determine risk categories; and that these risk classifications be used to set premiums that minimize cross-subsidization among risk categories;
4. Impose a requirement that the FDIC cover costs plus earn a reasonable return on capital.

The first policy change is needed to attract private firms to the deposit insurance business. The policy of providing de facto 100 percent coverage to all depositors has lessened market discipline on banks by minimizing depositors' fears of loss. It has also effectively precluded a market for excess deposit insurance. The market for excess coverage is probably the most likely place for private competitors to enter. The scope for competitive entry would be increased by lowering deposit limits. In offering excess coverage, private insurers would price insurance to reflect expected losses. In this manner risk would be priced on the margin. In addition to lowering maximum coverage limits, basic FDIC coverage should

also be altered to include some form of coinsurance. For example, coverage could be reduced to 80 percent of losses. This too would reduce the moral hazard problem by encouraging risk to be priced more accurately at the margin.

After substantial experience with excess coverage some companies might choose to compete with the FDIC in providing minimum or basic insurance for depositors. Policy recommendation two would also have to be adopted to open the market for basic insurance coverage. At present, private deposit insurance is not prohibited by any federal or state statute. But most banks are required to purchase FDIC insurance. If broad-based coverage by private insurers is desired, this requirement would have to be lifted. When coupled with FDIC's de facto provision of 100 percent coverage there is little reason at present for banks to be interested in private insurance.

The third recommendation is motivated by the FDIC's reluctance to use the CAMEL rating system to determine risk classifications for deposit insurance. As mentioned earlier, this problem stems from the FDIC's position as a monopoly provider of deposit insurance. Nonetheless, robust information about risk characteristics is needed to price risk accurately. A premium structure based on the CAMEL system, rather than the proposed three-tier premium system, would tend to reduce cross-subsidization across different risk classifications.¹²

Given the low bank failure rate since the FDIC was established, cross-subsidization probably has not posed a major actuarial problem for the FDIC in the past. As we move to a less regulated financial

environment, however, risk-taking is likely to increase. Actuarial problems from cross-subsidization may therefore become a more important problem in the future. Efforts should be taken to minimize cross-subsidization by utilizing the best available information about bank risk characteristics.

The fourth recommendation is intended to make competition feasible for both basic and excess deposit-insurance coverage. Although the experience of public utility regulation suggests that determining what is a "normal" or "necessary" return on capital presents problems, some thought must be given to the rate of return required on FDIC insurance operations. If set too low, the FDIC's pricing would preclude entry. If set too high, the FDIC's rates would act as an "umbrella" protecting private competitors. Entry would be restricted in the first case. In the latter case, private returns would be supra-normal in the short run, in the long run, too much entry might occur.

The suggested changes could be implemented by using the current system of pricing check-clearing services as a transition model. In the Monetary Control Act of 1980, Congress mandated that the Federal Reserve System price its services, including check clearing, with the aim of promoting competition with private firms. Federal Reserve Banks have had to identify costs directly attributable to clearing checks. And they are required to earn a reasonable rate of return on imputed capital.

The judgement of Federal Reserve Banks on their relevant costs has not gone unchallenged. Nonetheless, the cost analysis used thus far has withstood criticism. A good deal of vigorous competition has developed in

the area.¹³ The criteria and operating procedures used by Federal Reserve Banks can be expected to evolve over time, and in response to competitive pressures. This has already occurred in some respects. Any arbitrariness in cost and profit criteria can be lessened over time, as evidence accumulates about competitive practices in the industry. The same process would be operative for the FDIC and other deposit insurers.

The procedure followed by Federal Reserve Banks represent a model for implementing a transition to competitive deposit insurance. The FDIC's task would be easier than the Federal Reserve's in at least one respect. A good deal of the controversy over the continued provision of check-clearing services by the Federal Reserve Banks has centered on a potential conflict of interest. The Federal Reserve exercises important regulatory powers over its competitors. The FDIC has indicated willingness to retain only those supervisory powers and responsibilities related to the provision of insurance. Conflict of interest presumably would preclude the FDIC from supervising competitors (i.e. insurance companies). In this sense, the transition to competition in deposit insurance would be easier than the transition to competition in check clearing.

Analysis of Policy Recommendations

The aforementioned changes in existing FDIC insurance coverage would increase market discipline on bank behavior. Insurance premiums would more accurately reflect risk differentials among insured institutions. Depositors would be subject to potential loss from bank failure, particularly if some form of coinsurance is introduced. Both

changes would increase the cost to banks of incurring additional risk. Insurance premiums would vary on the basis of changing risk characteristics. In addition, riskier institutions would have to pay higher yields to purchase funds. Rising costs, associated with risk taking, will impose greater constraints on bank behavior. Asset portfolio decisions would thus more closely reflect depositors' risk preferences.

Reform is needed to avoid portfolio misallocation resulting from risk-pricing problems. In addition, the growing practice of offering FDIC-insured deposits through money brokers also underscores the need for deposit-insurance reform. This practice not only augments the risk-pricing problem, but it also sharply reduces the FDIC's ability to control its liability exposure. Brokerage firms are aggressively packaging FDIC-insured deposits from separate financial institutions. In so doing, they offer institutional or independent investors legally-insured "deposits" in excess of the stated \$100,000 FDIC limit. Retail deposits insured by the FDIC or FSLIC also are being sold through brokerage firms in increments as small as \$1,000. This practice could enable brokers to provide 100 percent insurance coverage to all depositors.

The FDIC has provided de facto 100 percent insurance coverage to depositors by relying on the P&A transaction to settle bank failures. The decision to do so, however, was made independently by the FDIC. The FDIC was not legally bound to pay off non-insured deposits. The practice of offering FDIC-insured deposits through money brokers, however, creates a legal obligation for the FDIC and thereby eliminates control over liability exposure.

The ability to package FDIC-insured deposits provides a strong case for deposit-insurance reform. The suggested reduction in coverage limits below \$100,000 would marginally increase the cost of consolidating FDIC-insured deposits. Consolidation costs, however, are relatively low. This change alone would not preclude this practice. In addition, direct regulation prohibiting the sale of FDIC-insured funds through brokers would be difficult to enforce. Monitoring costs, including disclosure requirements on individual depositors, would be high and would raise serious concerns over individuals' rights to privacy. Hence, it will be difficult to eliminate this practice.

If a fully competitive system of deposit insurance were to evolve, coverage limits would no longer be an issue. Basic coverage would be in whatever amounts the insurers--be they the FDIC, Aetna, or any other provider--preferred. Individual providers would control their own liability exposure by closely monitoring the size of the institutions they cover. Apart from its effect on the companies' aggregate liability exposure, private insurers would not be concerned about the number or size of individually insured deposit accounts. As long as there is competition, insurance companies can directly control their respective liability exposures without necessarily preventing growth of insured institutions. They can accomplish this by reinsuring (i.e. by selling part of the business to other companies). As an individual bank grows, its insurer could reinsure. Only if growth involved undue risk taking would the insurer have the incentive either to limit the banks' growth or cancel the policy at renewal.

These options are not available to the FDIC. It can neither reinsure, nor cancel a policy, nor refuse to cover new deposits in an insured institution. In the past the FDIC was able to control its aggregate exposure, and its exposure to any one institution, by controlling the size of insured accounts. This practice worked when the ability of banks to grow was limited by product and geographic regulation. These constraints no longer limit bank growth. Hence the FDIC cannot rely on coverage limits on individual accounts to control its liability exposure.

Concerns about the FDIC's loss of control over its liability exposure have been aggravated by increased reliance on brokered funds. But, banks themselves can aggressively bid for FDIC-insured funds to foster growth. Thus even if brokering practices were eliminated, the \$100,000 insurance limit does not provide an effective mechanism to control FDIC-liability exposure. This problem is likely to increase with deregulation.

Impact on Banks and Depositors

The reform outlined in this paper was aimed at accomplishing two goals: first, to alter deposit insurance coverage so that risk would be priced more accurately; second, to make entry of private insurers feasible without disrupting basic deposit insurance coverage. The proposed changes would alter both bank and depositor behavior. Like any major policy reform, such changes would generate transition costs; these costs would vary across institutions. In this section, we identify some of these costs and analyze the expected impact on the banking structure.

The suggested reform would generate two separate but related incremental costs for banks. If risk taking is currently underpriced, at the outset reform would generate a once-for-all increase in funding costs (inclusive of insurance costs). This once-for-all increase in costs would likely affect all institutions. In addition, differential cost adjustments would be imposed across institutions in relation to individual bank risk. Costs would vary both because of variation in insurance premiums and yield differentials required by depositors.

In the current environment, deposit differentials between institutions do reflect perceived differences in financial risk. The magnitude of these differentials, however, would increase if uninsured depositors expected greater loss from bank failure. Thus, after reform, cost constraints generated by yield differentials and variable insurance premiums would tend to have a larger impact on bank behavior. New information about risk-reward tradeoffs on bank deposits also would stimulate deposit flows more quickly, principally from uninsured depositors. Banks, then, would be more concerned about depositors' risk perceptions. These changes would reduce moral hazard.

After adjustment costs are absorbed, the bank failure rate may be higher than the post World War II average. It might, however, be below the failure rate that would occur without reform. In assessing the impact of deposit insurance reform on bank failure it is important to note that deposit insurance would still be provided. The main difference is that more attention would be given to risk taking by both banks and depositors. During the transition phase,

some institutions might be unable to absorb the adjustment costs. Those institutions with relatively risky portfolios would be the most vulnerable. In particular, firms in which the average return on assets is insufficient to compensate depositors for risk once it is repriced will face the greatest pressure.

Since adjustment costs cannot be estimated prior to introducing reform, the number of firms in this category cannot be determined a priori. Banks are already paying market-determined interest rates on their deposits. After reform, risk premiums will tend to be similar to premiums paid by other corporate borrowers. Bank CD and commercial paper rates already approximate non-bank corporate borrowing rates. Adjustment costs can be expected to be positive, and may be similar in magnitude to the transition costs from removing Regulation Q.

Questions also have been raised about the differential impact that deposit insurance reform would have on banks in different size categories. In particular, concerns have been expressed that reform would place small banks at a competitive disadvantage vis-a-vis large institutions. The proposed reform, however, differentiates among banks on the basis of risk, not size. Riskier banks would pay more for funds. This does not discriminate unfavorably against small banks as a group. It would, however, be relatively costly for the riskier small banks.

At present, small banks typically are at a competitive disadvantage when raising funds in the national money market. Three major factors account for this. First, the market for large CDs at small banks, including the lesser-known regionals, is considerably less developed than

the deposit market for large banks. Among other things this reflects higher information costs. Second, the asset portfolios of small banks often are perceived to be less diversified and hence riskier. This again, in part, reflects information costs. Third, the FDIC has occasionally paid off insured depositors of small institutions rather than use the purchase and assumption transaction. This also has placed small banks at a competitive disadvantage relative to large institutions.

The proposal suggested in this paper would eliminate this third factor. With competitive deposit insurance banks would not be discriminated against by insurers on the basis of size alone. Competitive deposit insurance might improve the position of high-quality small banks. A well-developed market for deposit insurance might enable small banks to utilize the deposit rating assigned to it by a recognized insurer to market liabilities more effectively. Small municipalities take advantage of ratings provided by the Municipal Bond Insurance Association (MBIA). Small banks also would likely be able to utilize high quality ratings to improve access to the national deposit market.

Deposit insurance reform, however, would impose relatively high funding costs on lower-quality small banks. Deposit outflows resulting from adjustments in depositors' perceptions about risk exposure would probably make these banks more dependent upon non-local deposits. And these deposits presumably would be purchased at relatively high premiums. Improved and more readily accessible information about bank risk, together with greater potential for financial loss by depositors, would tend to increase yield differentials on deposits at lesser-known, lower-quality

institutions. The deregulation process has already created pressures on these banks.

Impact on Bank Runs

In this section, the impact of deposit insurance reform on bank runs is addressed. In analyzing this issue, distinctions are made between runs on sound and unsound institutions. A competitive deposit insurance system is likely to make unsound institutions fail more quickly. But the additional information provided by competitive prices in this system is likely to improve the position of sound banks. Depositors would be able to more accurately differentiate between high-quality from low-quality institutions. The marginal uninsured depositors at all institutions would be more sensitive to information regarding the strength of the institution. To a lesser degree, deposits already are reallocated on the basis of depositors' risk preferences. Existing differentials reflect the small but positive probability that a bank with uninsured deposits could fail and not be settled with a P&A transaction. After reform, differentials would increase but the process of reallocating funds would remain essentially unchanged.

The potential for bank runs on sound institution would only occur in unusual situations. This would presumably occur as a result of unfounded rumors. The bank in question, however, would be able to meet its funding requirements by borrowing at the discount window. Once the misinformation was dispelled, the institution would again be able to fund itself in the market. Finally, even if the lender of last resort function

were absent, it is unlikely that a bank run on a basically sound institution would result in failure. The probability of that occurrence is comparable to the probability of the stock price of a profitable company being bid down to zero by misinformed investors. Both scenarios are possible but remote.

Now let us consider the issue of a widespread bank run--a panic. It is the potential for a panic increased in a system of competitive deposit insurance? The answer to this question depends in part upon the information provided by a competitive deposit insurance system as compared to the current system. Some of the information provided by the market will be incorrect. On net, however, the information provided by a competitive market can be expected to be more accurate than information provided by a sole producer. This is the main advantage of moving to a system of competitive deposit insurance. The ability to obtain information about risk does not increase risk. It does more fully reveal the extent to which risk has been undertaken. As a result, adjustments are likely to occur continually and incrementally. The ability to make continuous marginal adjustments on the basis of new information minimizes the potential for making sizable errors. Thus the potential for systematic judgement errors is reduced. Contrast this to an environment in which the mechanism for communicating information about risk operates episodically. Problems accumulate and tend to be revealed all at once. This increases the potential for a large number of bank runs occurring simultaneously.

If reform is implemented it will have implications for the lender-of-last resort functions. This is because uninsured depositors

would be subject to financial loss. Sharply altered information about the risk position of a bank is likely to generate funding pressures. This could have spill-over effects on other banks. If, however, the ability of the Federal Reserve System to stem a liquidity crisis is accepted, this situation could be dealt with successfully.

If classified broadly, concerns over a reform proposal for deposit insurance fall into two categories. First, there is general concern for the safety of the system if the reform proposal is implemented. The analysis presented in this paper should reduce these concerns. Second, there are concerns about the impact of transition costs on individual financial institutions. It has been argued that most banks should be able to absorb these costs. If reform is implemented attention must be given to depositor concerns during a transition phase. The proposal presented here addresses these concerns by continuing basic (albeit reduced) FDIC coverage. Meanwhile, the specific reforms would begin the long-term process of altering the incentive structure that currently motivates banks. The suggested reform will impose relatively high adjustment costs for riskier institutions. Some of these firms may fail. The alternative option, however, of insulating financial institutions from the cost of incurring additional risk, will tend to make the overall financial system less safe over time. Reform is needed to minimize the potential of this development.

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