Reforming Deposit Insurance and the Regulatory System: The Failure of the Middle Way

George S. Berger

> Government never of itself furthered any enterprise, but by the alacrity with which it got out of the way.
>
> —Henry David Thoreau

The recent S&L crisis and problems with commercial banks have stimulated new research into the causes of these problems as well as the solutions to them. As a group, economists generally agree that three factors have been relevant: deposit insurance, regulatory restrictions, and political mismanagement by legislators and regulators. However, agreement quickly dissolves when the discussion turns to solutions. Most economists eschew radical solutions and advocate a middle way: the reform of deposit insurance or the retention of deposit insurance supplemented by a reformed regulatory system. They defend such second-best solutions by arguing, first, that the banking system is inherently unstable without deposit insurance, and, second, that legislators and regulators can design a relatively stable financial system.

But these justifications for government intervention do not rest on firm ground. A thorough discussion of the first defense may be found in Kevin Dowd (1992). This paper is concerned with the second defense. In general, government decisionmakers assume that information is given and objective and can be used effectively outside of normal market channels. When market failures occur, government decisionmakers can use such information to restructure markets so that they operate more efficiently. Hayek (1945) has thoroughly critiqued this approach to information. Because information is subjective,

---

Cato Journal, Vol. 14, No. 2 (Fall 1994).

The author is Assistant Professor of Economics at the University of Pittsburgh-Johnstown. He would like to thank his colleagues and an anonymous referee for their helpful comments.

dispersed among the minds of millions of individuals, and specific to time and place, it cannot be formally articulated and conveyed to a central authority. As a result, attempts to restructure markets will omit crucial information and doom these attempts to failure.

Government-provided deposit insurance illustrates this problem. The introduction of such insurance created a potential misallocation of resources by using a uniform premium structure. Regulators and legislators then justified further interventions on the grounds that they were needed to restrain the potential for risk-taking created by the premium structure. But when these initial regulatory interventions failed, further interventions were deemed necessary to correct such failures. This sequence of events illustrates the point of this paper: second-best solutions which retain government interventions will eventually deteriorate because they are inherently unstable.

The paper presents a brief analysis of federal deposit insurance followed by a detailed critique of a number of current reform proposals. The most important of these approaches to reform can be classified into two main categories: (1) the reform of deposit insurance, and (2) the reform of regulation.

A Brief Analysis of Federal Deposit Insurance

Most economists would argue that deposit insurance has been one of the most successful government programs in existence. They support this contention by pointing to the extraordinarily low rate of bank failures during its first 40 years of existence. Recent events have not shaken this view; indeed, reformers have attempted to recreate those earlier trouble-free days.

But this view of deposit insurance is simply wrong (Dowd 1993). Deposit insurance suffers from an inherently flawed institutional design:

- Deposit insurance creates strong incentives for insured institutions to decapitalize.
- As institutions decapitalize, the moral hazard incentive grows proportionately stronger.
- Depositors experience dramatically reduced incentives to monitor banks.

Because deposit insurance attenuates private incentives to monitor banks and exacerbates the moral hazard problem, government must then intervene in order to correct perceived market deficiencies.

First and foremost, deposit insurance creates strong incentives for the insured institutions to decapitalize (Benston et al. 1986: 232; Mussa 1986; Dowd 1993; Salsman 1990). When deposit insurance

was first introduced, these incentives did not immediately surface because legislators and regulators unintentionally provided insured institutions with a powerful counter-incentive. In their desire to protect their clientele from competition, regulators and legislators segmented markets for various financial services by product and geographic region and imposed interest rate ceilings. Such restrictions were deemed necessary to limit the propensity toward excessively risky investments contained in deposit insurance.

These restrictions had two effects, one intended, the other unintended. The intentional restraint of competition initially produced high rates of return for banks. John Boyd and Arthur Rolnick (1988: 5) explain:

> These high rates of return, as reflected in the market value of a bank charter, presumably provided the bank with a strong disincentive to take on too much risk. While the bank could have earned more by taking on more risk, the cost of bankruptcy was substantial; that is, the cost of losing a bank charter may have far outweighed the gain from a risky portfolio strategy. The value of a bank's charter, therefore, reflected the subsidy that was the *quid pro quo* for not taking too much risk. This protective subsidy effectively reversed the risk-return tradeoff facing the banker. The subsidy was high enough so that incurring more risk would lower—not raise—the banker's expected return. The protective subsidy was the cost of successfully containing moral hazard in banking.

Essentially, the fear of losing this protective subsidy induced the banks to monitor themselves. Consequently, the protective subsidy most likely resulted in excessive risk aversion on the part of banks: banks made too few risky investments. The unintentional result of these restriction was the undiversified nature of financial intermediaries. The inability to diversify across products or geographic regions left most institutions highly vulnerable to external shocks.

With competition in the financial sector effectively cartelized for four decades and the macroeconomy free from major external shocks, banks remained insulated from all but the merest ripple of trouble. But the 1970s brought an increasingly unstable macroeconomic environment and increased competition from unregulated sources. Rising and increasingly variable rates of inflation translated into increasingly volatile interest rates. Institutions with severe maturity mismatches were subjected to significant interest rate risks. Moreover, technological innovations in finance brought new unregulated competitors into financial markets, thereby increasing competition for existing banks and eventually eliminating the protective subsidy. The elimination of the protective subsidy implied that the spread between the cost of

funds and bank earnings had narrowed considerably. Michael Mussa (1986: 111) explains:

> With low spreads between loan rates and deposit costs, managers of depository institutions are forced to maintain low ratios of equity to total assets in order to earn returns sufficient to attract equity capital. Thus the effect of deposit insurance . . . is to diminish the cushion of equity capital that protects either the government or uninsured depositors in the event of declines in the value of assets held by a financial institution.

This explanation is consistent with data showing that S&Ls have held declining amounts of capital since 1970 (Barth, Hudson, and Page 1991: 49). A similar decline in the capital of commercial banks between the mid-1960s and mid-1980s has been documented by Richard Salsman (1990: 64–66), and George Kaufman (1991: 386–89). In effect, S&Ls and commercial banks decapitalized by substituting an implicit guarantee of capital from the government for their own capital only when they faced competitive pressures.

As institutions gradually decapitalized, the second major problem associated with deposit insurance began to emerge: the moral hazard incentive grew proportionately stronger because of the elimination of the protective subsidy and the progressively weaker monitoring incentives of residual claimants. Managers of insolvent and near-insolvent institutions, with the support of residual claimants, gambled on very risky investment projects in order to restore their institution to a healthy state. These increased credit risks almost always failed, significantly increasing the cost of resolving insolvent institutions when foreclosure was finally invoked (Kane 1989).

Third, with deposit insurance and an implicit guarantee of 100 percent coverage for the largest banks, depositors' incentives to monitor their banks dramatically declined. As a result, private institutions have not evolved to provide such information.[1]

In short, deposit insurance causes banks to decapitalize and to adopt riskier investment strategies. The latter is possible because beneficiaries of the protective subsidy and residual claimants decrease their monitoring activities while depositors, fearing no losses, cease theirs. As a result, regulators and legislators desirous of retaining deposit insurance must substitute policies which offset the moral hazard problem and the lack of private sector monitoring.

[1]During the National Banking Era, banks without deposit insurance were carefully monitored by many of their depositors and many banks generated information on their safety. Kaufman (1989: 153) also notes that banks assumed significantly fewer interest rate risks, because they knew that depositors were monitoring them.

The Reform of Deposit Insurance

Risk-Based Insurance Premiums

Many economists advocate the use of risk-based insurance premiums to reduce the problem of moral hazard. Such a proposal poses numerous difficulties.[2] First, governments are monopoly suppliers of deposit insurance, and this in itself makes it highly unlikely that risks will be correctly priced. Normally, the price of risk emerges from the competitive process as private insurers risk their own money, earning competitive returns when they are correct, and losing money or going bankrupt when they are wrong. When the government attempts to set risk premiums, no corresponding penalty exists for the incorrect setting of these prices. As a result, not only will some risks be overpriced and others underpriced but these errors will persist for long time periods because government agencies lack a feed-back mechanism to correct these problems. This produces a financial system which is once again vulnerable to high-risk strategies because some risks remain underpriced.

Second, government-set risk premiums must be retrospective in nature while market-generated risk-premiums are normally prospective (Litan 1987: 155–56). Using the feedback effects of profits and losses, private insurers quickly learn to price new risks, constantly anticipate future developments, and stay alert for new information and innovations that voluntarily reduce risk. In contrast, regulators will have significant problems in pricing any risks because they can only use objective data on the past performance of existing assets to set prices.[3] Consequently, they may very easily underestimate new risks, underprice them, and introduce instability once again. On the other hand, regulators can also overestimate new risks, set risk premiums too high, and discourage the introduction of risk-reducing financial innovations.[4] These pricing errors produce a more unstable financial system.

Third, even if regulators manage to set the risk premiums correctly, these premiums will be obsolete very quickly in a dynamic financial

[2]See Benston et al. (1986: 227–43); Kaufman (1988: 26); Litan (1987: 154–56); Flannery and Protopapadakis (1984).

[3]Great care must be used in interpreting and applying this data because the risk premiums that regulators deduce from these data obviously will only be valid if the future is exactly like the past. Such a condition is unrealistic because market participants are constantly learning and acquiring new information.

[4]Edward Kane (1993: 77) argues that "burdensome premiums create a virtually irresistible incentive for low-risk institutions to expand their risk-taking to make sure that the value of the insurance services they receive from BIF equals or exceeds the charge that FDIC levies on them."

services industry which is attempting to remain competitive with the rest of the world. Given that the regulatory process will be extremely slow in generating new risk premiums, the resulting regulatory lag can once again introduce instability into the system.

Fourth, risk premiums have not been tried in other countries where government agencies operate deposit insurance (Bartholomew and Vanderhoff 1991). While this is not definitive evidence that a system of risk premiums cannot be devised by government, it suggests that government cannot apply a set of rules in a discriminatory fashion.[5] If a system of effective risk premiums were introduced, institutions subjected to adverse premiums would almost certainly lobby the government to change that situation. As a result, deposit insurance would be underpriced because of political pressure from the regulated industry.

In summary, the introduction of government-set risk premiums has both practical and theoretical flaws. These flaws are significant because political institutions have neither the incentives nor the capabilities that private parties have in pricing risks. The price of risk can emerge only through the countless interactions of buyers and sellers in the marketplace. It is these interactions that elicit and coordinate the dispersed and inarticulate information about risk. Attempts by regulators to elicit and coordinate such information by coercion will be consistently frustrated.[6] As a result, regulators cannot set accurate

[5]In 1992, the FDIC introduced a system of risk-based deposit insurance premiums based on an institution's capital category. As of June 25, 1993, these premiums ranged from a minimum of 23 basis points to a maximum of 31 (*Federal Register* 58–121: 34357). Given the narrow spread between maximum and minimum premiums, banks seem to have very little incentive to avoid risk-taking. Karen Shaw (1993: 55) notes that this risk-based premium "reflects both the capital and the CAMEL ratings, but also includes other 'black box' factors the FDIC may choose to consider." Because of the nebulous nature of these other factors, banks do not have a bright-line rule that allows them to differentiate between acceptable and unacceptable risks. Additionally, such a nebulous system of rating risk allows the FDIC sufficient latitude to express disapproval of certain risks during a crisis but to engage in considerable forbearance during noncrisis periods.

[6]Thomas Sowell (1980: 218) notes that

> the knowledge needed is a knowledge of *subjective patterns of tradeoffs that are nowhere articulated*, not even to the individual himself. I might *think* that, if faced with the stark prospect of bankruptcy, I would rather sell my automobile than my furniture . . . but unless and until such a moment comes, I will never *know* even my own trade-offs, much less anybody else's. [Emphasis in original.]

Accurate revelations of such knowledge cannot be elicited by centralized methods such as mechanism design. Advocates of such an approach (Farrell 1987) ignore the property rights implications of residual claimancy. Third-party residual claimants have a strong entrepreneurial incentive to search for a voluntary solution to a bargaining impasse in the presence of private information. Third-party nonresidual claimants (NRCs) can be sidetracked by opportunism or by the lobbying pressures of the affected parties. Moreover, third-party NRCs can also be misled by strategic behavior in situations of repeat play.

insurance premiums. Trying to make government act as a private insurer is not a feasible way to reform our financial institutions.

The Cross-Guarantee System

Bert Ely (1985, 1994; Ely and Vanderhoff 1991) has developed a detailed proposal which is based on the concept of a cross-guarantee system. Ely recommends that all banks in this system be insured and each insured bank have a large number of Tier 1 guarantors while each guarantor bank diversifies its insurance guarantees across a large number of insured banks. Furthermore, guarantee contracts include stop-loss provisions which limit guarantors' losses and prevent their insolvency. Any excess losses can be reinsured with other guarantors outside of Tier 1. In this way, Ely's cross-guarantee scheme would ensure that even significant losses can be efficiently spread throughout the banking system.

As private insurers, guarantor banks would use risk premiums and foreclosure proceedings more effectively than government insurers could. Guarantor banks would quickly learn to discriminate between good and bad risks by using prospective risk-based premiums (Ely and Vanderhoff 1991: 18–19). Given the fact that guarantor banks have their own capital at stake, such guarantors also have strong incentives to monitor insured banks and institute foreclosure proceedings as soon as doubts about solvency occur.

Ely also argues that a government backstop is necessary to ensure the stability of the banking system. In this case, the Federal Reserve must be legally compelled to provide unlimited amounts of liquidity to any bank that faces a liquidity crisis (Ely 1985: 348; Ely and Vanderhoff 1991: 22).

Last, Ely argues that the guarantee system must pass a market test. If 200 banks with $500 billion in assets sign guarantee contracts, the guarantee system passes this test (Ely 1994: 425). Eventually, all banks must join the system in order to eliminate the problem of free-riders.

Although such a proposal has much merit, it has three very serious problems. First, Ely ignores the fact that the cross-guarantee system was a second-best alternative to branching. Clearinghouses developed a cross-guarantee system to insure their members' deposits only when the ability to establish branches had been abolished. For clearinghouses, the cross-guarantee system was an explicit part of their constitutions wherein member banks agreed to share the losses of any member bank according to their share of the total capital held by clearinghouse members (Gorton 1984).

The clearinghouse cross-guarantee system was a hierarchical solution which, like branching, reduced the costs of monitoring bank-

specific assets (such as commercial loans) and provided its members with deposit insurance.[7] But the clearinghouse's cross-guarantee system incurred higher monitoring costs than a branched bank because the clearinghouse had to deal with a number of separate banks. These costs were kept relatively low by creating a simple guarantee system. Thus, there were no premiums to be assessed or complex contracts to be administered.

In contrast, the transactions costs arising from Ely's cross-guarantee system appear to be considerable: large numbers of contracts must be signed and constantly monitored to ensure that the correct premium is charged and the guarantor is protected from losses. Thus Ely's proposal would impose undue costs on the guarantor banks. While guarantor banks could absorb part of these costs in the form of a lower rate of return on guarantee contracts, insured banks would face higher premiums. As a result, fewer banks would offer their services as guarantors and insured banks could not effectively compete with foreign banks. The guarantee system may self-destruct of its own accord.[8]

Second, mandatory membership in the guarantee system also poses a significant problem. This requirement is not a true market test as Ely asserts. Assuming that some banks find guarantee contracts profitable while others do not, the guarantee system passes the market test for the former banks but fails it for the latter. Ely asserts that if enough banks of the former sort join the system, then all banks of the latter sort must also join. The free-rider problem has been transformed into the forced-rider problem.

Under these circumstances, forced riders will do everything in their power to subvert the guarantee system. Since some banks will benefit

[7]Susan Woodward (1988: 686–87) notes that "the more idiosyncratic a loan is, the less likely it is that the bank will sell the loan to another institution, because the assessment the second institution would undertake before the sale is costly . . . trading loans may be inferior to interstate branching as a means of diversification. . . ." Essentially, efficient diversification of risk with idiosyncratic loans can be achieved not by interfirm trades but by branching.

[8]Ely could argue that three state governments enacted legislation establishing deposit insurance systems with cross guarantees and such systems worked extremely well. But that argument ignores some important history. Whenever branch banking has not been prohibited, banks have evolved branching systems, not guarantee systems. Moreover, transportation and communications networks were very limited before the Civil War so that the cost difference between branching and cross guarantees was much smaller. Such would not be the case today. While it is possible for legislatures to enact laws that have some economic merit, these laws are quite inflexible tools. They mandate uniform regulation of an industry with diverse cost structures and suppress entrepreneurial discovery processes in favor of the status quo. When circumstances necessitate changes from the status quo, those with investments in the current system will resist such changes. Therefore, legislative mandates are dynamically inefficient.

at the expense of the forced riders, a conflict will ensue over how the redistributive gains will be divided, a conflict that may be settled in the legislature and transform the guarantee system beyond recognition. If forced riders find themselves lacking sufficient political influence, they may abstain from acting as guarantors. This result implies that the cross-guarantee system may have great difficulty in attracting a sufficient number of guarantors. Thus, either existing guarantors will have to undertake excessive risks or the system will have to be abandoned.

Additionally, Ely uses the free-rider rationale incorrectly. During crisis times, clearinghouses were able to provide their members with mutual support which was unavailable to outsiders. Therefore, outsiders could not free-ride on the guarantee system. Such free-riding can *only* occur in a system with a government lender of last resort. According to Ely, banks could refuse to join the cross-guarantee system, save themselves the insurance premium, and obtain a bail-out whenever insolvency loomed. But this problem is easily corrected by tying aid from the lender of last resort to system membership. Consequently, there appears to be no reason for mandating membership in the cross-guarantee system for all banks.

Third, requiring the Fed to provide unlimited amounts of liquidity to the banking system seriously weakens Ely's proposal. Such a requirement merely substitutes the moral hazard problems of the lender of last resort for the moral hazard problems of the government insurer (Dowd 1989: 42–43). Private insurers, because they are aware of both the Fed's and the deposit insurer's policies, must take the effects of those policies into account in their pricing decisions. Thus insurance premiums will reflect the put option on the Fed's credit line and the deposit insurance fund resulting, once more, in underpriced deposit insurance.

Again, the lender of last resort will have great difficulty in monitoring borrowers because it cannot easily distinguish between insolvent banks and solvent but temporarily illiquid banks. Given this fact, many of the former will be aided by such lending. As long as insolvent banks can stay afloat by borrowing from the Fed, they can delay the closure decision. Only when insolvent banks cannot pay back their loans to the Fed will guarantor banks be able to invoke closure. The backstop which, according to Ely, would never be needed has become a government insurer of last resort with all the undesirable consequences of mispriced insurance, attenuated monitoring, and delayed closings.[9]

[9]19th-century clearinghouses united the function of monitor and provider of liquidity. In this way, providers of liquidity (in the form of loan certificates) bore the losses for bad risks and thereby had an incentive to monitor the activities of their members. Ely's proposal separates these two functions with the guarantors responsible for monitoring insured banks but the Fed responsible for providing unlimited liquidity.

In summary, Ely's cross-guarantee system does not so much reform deposit insurance as disguise its government subsidy. Although Ely has sought to design a banking system that is safe and sound, the above argument points to another possible outcome: the collapse or gradual decline of the cross-guarantee system which leaves large numbers of banks dependent on a lender of last resort. The ensuing catastrophe would be just the opposite of what Ely intended to accomplish. These unintended consequences would occur because Ely attempts to impose a particular institutional design on market participants rather than allowing these participants to evolve their own set of institutions spontaneously. In short, Ely has ignored Hayek's admonition that our economic system is a product of human action but *not* a product of human design.

The Reform of Regulation

Risk-Based Capital Standards

Believing that deposit insurance cannot be properly reformed but must be retained to prevent banking panics, many economists have advocated the use of risk-based capital standards to offset the incentives in deposit insurance for decapitalization. As a consequence, regulators, aware that unilateral action can put U.S. banks at a competitive disadvantage, have negotiated with the G-10 governments and produced a cartel agreement called the Basle Accords which obliges these governments to enforce a uniform set of capital standards on their banking systems (Kane 1991, Ferrara 1991). The Basle Accords require banks to hold core capital equal to at least 4 percent of total risk-adjusted assets while total capital must be equal to at least 8 percent of total risk adjusted assets. All assets are classified into one of four risk categories with riskier assets requiring more capital.

There are a number of difficulties with this regulatory scheme (Ferrara 1991, Boyd and Rolnick 1988, Benston and Kaufman 1988). First, regulators have simply neglected interest rate risks and liquidity risks. Interest rate fluctuations would require that long-term assets belong in a higher risk category than short-term assets. But the new capital standards place 30-year mortgages in a lower risk category than 3-month commercial loans. Again, the new capital standards treat portfolios with shorter maturities the same as portfolios with longer maturities.

Second, the new capital standards completely ignore the benefits of portfolio diversification. Essentially, each of several assets may be highly risky to hold singly, but if the returns of these assets vary inversely to each other, then combining them in one portfolio reduces

the overall risk of that portfolio. Thus a diversified portfolio of individually risky assets can have a lower overall risk than a portfolio of a small number of individually safe assets. Ignoring the possibility of diversification may actually increase the risks faced by banks.[10]

Third, two additional problems with capital standards bear mentioning. Boyd and Rolnick fear that banks subject to adverse classification may exert political pressure on regulators. Such pressure can delay or indefinitely postpone reclassifications. In addition, Boyd and Rolnick (1988: 10) note that

> the new capital standards invite loophole exploitation on the part of banks, which have a natural incentive to find (or create) assets which have had their true risk underestimated. In fact, this process is already beginning, and the effectiveness of the capital standards will depend substantially on the authorities' zeal in finding and plugging loopholes.

Absent systematic incentives which induce the authorities to find and plug loopholes, it seems reasonable to assume that loopholes will abound and that many banks will invest in excessively risky assets.[11]

Fourth, regulators have no way of knowing that these standards specify the optimal amounts of capital and the optimal weights for each risk category and that these standards will not change over time. Moreover, regulators have no error-adjustment mechanism to inform them when these standards are set incorrectly. As a result, any errors will tend to persist for long time periods. Standards that are set too

[10]Problems will occur even if portfolio diversification is taken into account. James Barth and R. Dan Brumbaugh (1990: 64) argue that

> unless the risk-based requirement closely reflects the actual risk of the portfolio, the assets comprising a . . . portfolio will be different than the asset mix that would have been chosen strictly on the basis of portfolio risk. As a result, some loans that would have been made if risk were accurately assessed will not be made, and some loans that would not have been made will be made. The degree of credit allocation inefficiency will depend on how poorly the risk-based requirement mimics true portfolio risk.

[11]Kane (1991: 39–42) argues that the loopholes in the cartel agreement will make it ineffective. These loopholes are numerous: the vague definition of a bank, the use of book values to compute capital, and the ability to reclassify assets to obtain more favorable treatment for them, to name a few. As a result of these loopholes,

> industry opposition to the agreement in the affected countries dissipated as bankers realized that the existence of loopholes made it relatively easy to meet the evolving guidelines and even to refashion loopholes as needed. . . . With so many loopholes and no clear mechanism for enforcing the spirit of the agreement, the value of the capital requirement cartel so far is more symbolic than real [Kane 1991: 40–41].

The ineffectiveness of the cartel, however, does not mean that the effect of enforcing capital standards in the individual countries will be benign. For example, the diversion of resources into discovering loopholes means that banks find such activities less costly than lobbying regulators. (For other effects of the new capital standards, see Clair and Tucker 1993: 6–7.)

high misallocate capital, act as a tax on the regulated banks, and allow nonregulated competitors to increase their market share at the expense of regulated banks.

For George Benston and George Kaufman, this misallocation of capital appears to be an insignificant problem. They accept the Modigliani-Miller (MM) result that the choice of a firm's capital structure should be a matter of indifference to its owners. This reasoning allows them (Benston and Kaufman 1988: 60) to conclude that "the capital requirement should and could err on the side of too much rather than too little capital. Too high a requirement serves largely to reduce to zero the benefit to risk preferrers of underpriced deposit insurance. . . ."

This line of reasoning ignores the institutional details of real world firms. Michael Jensen and William Meckling (1976) have developed a theory of agency cost which incorporates such details. This theory predicts that different asset structures imply differing agency costs so that leverage decisions do matter (Reekie 1989: 195–96). As a result, mandating that banks must hold more capital than market forces dictate creates a significant misallocation of capital. The use of capital standards in conjunction with deposit insurance adds one distortion on top of another and the outcome of this combination cannot be easily predicted.[12]

In summary, the new capital standards are severely flawed. In general, the regulatory application of capital standards cannot completely specify the enormous range of risks that banks face. As a result, regulators' attempts to control some of the risks give banks incentives to increase their exposure to other uncontrolled risks. The strong possibility exists that the new capital standards may reintroduce instability into the financial system, a result opposite to what was intended.

Early Intervention and Timely Foreclosure

Benston and Kaufman (1988: 43–70), and White (1991: 232–35; 1992: 110) propose that deposit insurance be supplemented by a policy of early intervention and timely foreclosure for problem banks.[13]

[12]Capital requirements combined with deposit insurance will be ineffective when deposit insurance is underpriced. Banks in this situation will still decapitalize in order to capture the implicit subsidy. The combination of capital standards with underpriced deposit insurance exacerbates the tendency to seek loopholes in the capital standards. This diversion of effort into discovering loopholes results in a significant misallocation of resources.

[13]Assuming that the introduction of capital standards in the presence of mispriced deposit insurance might not halt the tendency to decapitalize, these economists have advocated increasing the monitoring, early intervention, and foreclosure powers of regulators. Once again, economists are recommending that activities normally performed in the market be replaced by government hierarchies.

Such a plan mandates progressively stronger regulatory interventions as bank capital decreases below selected trigger points. The progressively stronger nature of the interventions is designed to impose an implicit risk premium on banks. When bank capital declines below some legislatively designated minimum, such as 3 percent, banks will be required to reorganize or liquidate their assets. This proposal would require a large increase in resources devoted to monitoring banks but such costs would be more than covered by the increased benefits of early intervention and timely foreclosure (Benston and Kaufman 1988: 44–45). Doubts about the efficacy of this proposal center on three areas: the effectiveness of increased regulatory monitoring, the design of an early intervention system, and the timeliness of the foreclosure-reorganization process.

Regulatory Monitoring Problems

Regulatory monitoring involves a number of significant problems. In general, government agencies tend to undermonitor their clientele in non-crisis situations for three reasons.[14] First, government regulators have no profit and loss guidance and hence no strong incentives to gather accurate, relevant information. Second, government regulators face significant political pressures to suppress adverse information. Last, legislators (the principals) tend to undermonitor regulators' (agents') performance because they lack property rights in the agency. Without such property rights, legislators cannot claim the benefits that derive from monitoring agency performance and, as a consequence, will tend to be less vigilant in such monitoring. Regulators will therefore have more discretion to engage in opportunistic behavior than their private sector counterparts. Since the monitoring function of government agencies is usually divided into examination and supervision, these two activities are analyzed separately.

Lacking a stake in the losses, examiners do not have a strong incentive to ferret out fraud or uncover window-dressing practices. As long as examiners have followed the correct set of procedures, banks may fail but examiners will not be blamed. Punishments for not following the correct procedures are comparatively mild. Moreover, bank managers may engage in various circumventions and such evasions can be reasonably effective given the information asymmetry between examiners and bank managers. Consistent violation of regulators' rules, however, will not cause the cancellation of deposit insurance

[14]In crisis periods, regulators understand the necessity of appearing to defend the public interest. Overregulation is the most likely outcome in this situation.

coverage. All these factors point to a lowered alertness to bank managers' opportunistic behavior and a tendency to undermonitoring by examiners during non-crisis situations.[15]

Such undermonitoring tendencies can be illustrated in recent historical events. During the six decades in which federal deposit insurance has existed, regulatory agencies have faced an overwhelming monitoring burden involving over 30,000 depository institutions. In order to reduce this burden to manageable proportions, regulatory agencies have relied on a stable economic environment and the economic rents of banks to accomplish this goal (White 1992). This argument implicitly admits that government agencies supply an inadequate amount of examination services.[16]

Other more specific problems also exist. First, the very nature of the intermediation process makes it impossible for examiners to gather accurate information on a significant portion of banks' assets. During the intermediation process, many bank loans are tailored to specific characteristics of the borrower and are therefore bank-specific (Woodward 1988: 684–88; Shaffer 1992: 18). Unlike other bank assets, these assets have no secondary market and cannot be securitized because of their lack of standardization. Thus bank managers will enjoy a significant informational advantage over their regulatory monitors when it comes to evaluating such assets.

To solve this problem, proponents of regulatory monitoring have strongly advocated the adoption of market value accounting (MVA) for banks as well as regulators (Morris and Sellon 1991, Shaffer 1992).[17]

[15]During crisis situations, examiners have a strong incentive to overmonitor their clientele. Given the general perception that the problems in banking were produced by bad credit practices, regulators have cracked down on bank loans. David Bizer (1993) notes that as examiners increased their standards for loans after 1989, banks made fewer loans. (See also Clair and Tucker 1993: 8–10.)

[16]Some economists argue that the S&L mess could have been avoided if more resources had been devoted to monitoring (White 1991: 88–90). This argument ignores the abundant historical evidence on undermonitoring by regulators. All but three of the state deposit insurance funds established before the Civil War and all of those funds established after 1900 had problems with undermonitoring. Like federal deposit insurance, participants in the state funds were undermonitored with the result that massive fraud and excessively risky investments were commonplace. Because of these problems, every one of these state funds eventually became insolvent (Calomiris 1989).

[17]The current system of historical cost accounting (GAAP) poses two fundamental problems for users. First, it is vulnerable to interest rate risks. This problem can be significantly reduced by the use of futures and options. Second, capital gains can only be booked by selling the asset while capital losses can be deferred simply by holding on to the asset. Thus GAAP can be manipulated to make a bank's net worth position seem better than it really is. Using MVA to cure this problem may be less effective than proponents of MVA admit. Capital gains would be marked up when they occur but this number could be generously estimated for commercial loans. Similarly, capital losses could be conservatively

This emphasis on the adoption of MVA has overshadowed a more fundamental issue: the institutional context within which MVA would be used. Given that regulators possess incentives to undermonitor their clientele and face severe informational asymmetries, the expectation that the use of a MVA standard will magically produce better results does not seem reasonable.[18] Indeed, neither MVA nor any other government-mandated accounting system will cure what is essentially a faulty institutional incentive structure. The accuracy of information that is gathered in the regulatory context leaves much to be desired.[19]

Agency supervisors do not possess strong incentives to use examiners' data in a timely fashion. Since legislators cannot possibly anticipate all contingencies, they must delegate significant amounts of discretion to the relevant agency. When exercising this discretion, however, supervisors will bear the full costs of unpopular decisions without being able to appropriate the full benefits flowing from them. Blame-averse supervisors will seek protection in complex procedures that diffuse the responsibility for such decisions over a large number of people up and down the chain of command. Thus the relevant government principals have strong incentives to diffuse accountability among a large number of people instead of concentrating it in the hands of residual claimants.

In short, the institutional setting makes a significant difference in the accuracy of information produced. Given the relatively inefficient institutional context in which government examiners and supervisors operate, it should not be surprising that they are more likely to produce inaccurate results.

Implementation of Early Intervention and Foreclosure

Benston and Kaufman's proposal for early intervention and timely foreclosure fares no better. First, political pressures seem more

---

estimated. MVA estimates will not be free from manipulation in those difficult-to-estimate assets because a broad range of values may appear to be reasonable. As a result, the choice between MVA and GAAP is not obvious.

[18]It appears reasonable to assert that those residual claimants who use the more accurate accounting system will experience lower agency costs and higher residuals than others who use less accurate accounting systems. In other words, policymakers should allow the appropriate accounting system to evolve spontaneously rather than impose it from above.

[19]Benston et al. (1986: 252) argue that examiners have been largely unsuccessful in their ability to predict bank failures. Part of the explanation for this failure lies with the difficulties examiners encounter when attempting to assess the accuracy of large volumes of complex information. The remaining difficulties center around the inability of examiners to detect window-dressing devices and fraud. Additionally, the importance of accuracy can be underlined by stressing two things. First, David Mengle (1990) notes that, on average, roughly one-third of a bank's assets need adjusting to market. Second, since small changes in the market value of a bank's assets can result in large changes in net worth, small errors by government examiners in estimating the market value of assets can have very important implications for the bank.

likely to determine the decision to intervene than economic considerations. When the public perceives no immediate problem, influential groups can persuade policymakers that any incipient system-wide problems are minor and temporary and warrant the relaxation of mandated rules of intervention. When a problem becomes massive, widespread, and hence visible, policymakers must demonstrate their ability to protect the public by intervening in and closing any bank that shows the slightest indication of problems. Consequently, political pressures will cause regulatory enforcement to be highly variable: the underregulation of banks is inevitably followed by their overregulation.

Using the political process to impose and administer this proposal poses other sorts of problems. If intervention is required when capital reaches a certain trigger point, then regulators will be more cautious about reclassifying a bank the more dire are the consequences of that reclassification. Regulators will be most reluctant to invoke the foreclosure reclassification. In this fashion, a relatively hidden form of regulatory forbearance emerges. In essence, the intervention requirements of this proposal increase the likelihood and amount of regulatory tinkering at the beginning of the intervention process but decrease it toward the end of the process, just the opposite of what is needed. With trigger points set at a high level, regulators have a chance to expand the scope of their agency's work and can easily find troubled clients. Closing banks, however, means a loss of clients and budget and may not be done very quickly. An early intervention policy has been transformed into a "close 'em late" policy (Miller 1992: 29–31).

Third, setting a schedule of increasingly stronger interventions as a bank's capital deteriorates assumes that such actions by regulators will be sufficient to revitalize or close a poorly capitalized bank in a timely fashion. But regulators face a severe informational asymmetry here: bank managers have more information on the quality of the bank's assets and the bank's profit opportunities than the regulator does. In this case, it seems quite inappropriate to substitute the regulator's judgment for the bank manager's and thereby entangle regulators in the credit allocation process. To do so automatically guarantees an inefficient outcome.

The final problem with timely reorganization stems from the government's socialization of the foreclosure and reorganization process. Kaufman has studied the time period between 1865 and 1933 and found that shareholders and depositors during this period had strong incentives to ensure that closure decisions were made in a timely fashion (Kaufman 1989: 153–54). Consequently, bank failures resulted

in timely resolutions and low rates of depositor losses. As Kaufman (1989: 154) notes,

> Banks frequently closed themselves voluntarily during a liquidity crisis when they ran out of notes or could not make full payments to the clearing house at day-end. While operations were suspended, bank examiners would make a determination whether capital was sufficient or insufficient to reopen the bank. If capital was insufficient at national banks, they were given three months to raise capital by assessing shareholders.

Furthermore, between 1865 and 1933, depositor losses were relatively small. Kaufman found that depositors lost an annual average of .21 percent of total deposits over the whole time period. During crisis years, depositors lost an annual average of .78 percent of total deposits for 1873, 1875–78, 1884, 1891, 1893, and 1930–33, and .81 percent for 1930–33. In contrast, depositors lost an annual average of .07 percent of total deposits during noncrisis years (Benston et al. 1986: 64). Gerald Dwyer and R. Alton Gilbert (1992: 54) note that these average losses declined until 1921 to .19 percent for 1865–80, .12 percent for 1881–1900, .04 percent for 1901–20, and .34 percent for 1921–33.

Such timely resolutions and depositor losses before 1933 can be compared to similar data for the S&L debacle. Barth et al. (1989b) studied the resolutions of failed thrifts that occurred in 1988 when 205 S&Ls were formally closed. Using a tangible capital accounting basis, they found that 56 percent of the S&Ls had been insolvent three or more years, a result of regulatory forbearance (1989b: 374). Barth and Regalia (1988: 126), and Barth et al. (1989a: 34–35) present comparative data of the average losses of failed S&Ls as a percent of total S&L assets for the 1930s and 1980s. The losses averaged .30 percent for 1930–39 (.36 percent for 1930–33) but averaged .43 percent for 1980–88. In Barth et al. (1989a, 1989b) and Benston et al. (1986), a similar comparison is made for commercial banks: for 1930–39, the ratio of losses to total deposits averaged .69 percent (.81 percent for 1930–33) but for 1980–87 they averaged .61 percent. The authors (1989b: 348) conclude that the "crisis in the 1980s has already generated greater . . . failure costs with federal deposit insurance than without it during the Great Depression." Given the relative effectiveness of market-enforced foreclosure versus government-enforced foreclosure, proponents of timely foreclosure should discard the latter in favor of the former.

Conclusion

The desire to retain government-provided deposit insurance has convinced many economists to propose additional regulations to offset the distorting effects of such insurance. These proposals attempt to imitate the outcomes of market processes. But every reform which introduces market-like incentives into the banking system must be subjected to the pressures of the political process. As a result, reforms become thoroughly politicized and the market-like incentives transformed to suit political purposes. In the final analysis, market institutions and political institutions are incompatible because the latter tend to guide resources into activities which enhance political outcomes at the expense of economic ones.

All the reforms discussed in this paper attempt to imbue the political process with some accountability by imposing legislative mandates on financial institutions and government regulators. But the absence of ownership claims in government institutions means that regulators and legislators can act as nonresidual claimants. As a result, regulators and legislators derive net benefits not from the creation of wealth but from the redistribution of existing wealth. Rent seeking readily arises in such an environment wherein well-informed and influential groups with concentrated interests obtain their benefits by shifting the costs of their programs to other less well-informed and more dispersed interests. Thus the political process promotes cost spillovers, asymmetric information between voters and their agents, short-sightedness, and the dispersion of accountability among nonresidual claimants (instead of concentrating it in the hands of residual claimants). Moreover, the political process, unlike the market process, has no automatic mechanism for self-correction; in fact, necessary changes can be delayed by special interests with a stake in the status quo. Such characteristics mean that government institutions are *inherently* incentive-incompatible and no amount of tinkering will make them accountable to the voters.

The inherent incentive incompatibility of government institutions implies that the reform of the financial system cannot succeed by imposing a new institutional framework on market participants from above. Economists desirous of reforming the financial system assume that the enactment of their proposals will cure the problems therein without provoking adverse reactions. But when legislators and regulators mandate behaviors that would not be carried out voluntarily, rent-seeking behavior arises and the ensuing conflict produces stagnation and decline.

Economists and policymakers, intent on achieving a banking system that is safe and sound, would accomplish precisely the opposite with

their proposals. Any attempt to design a complex system for the purpose of achieving a certain outcome is bound to fail. Indeed, those engaged in such attempts can be likened to Sisyphus and his rock. The hope articulated in this paper is that policymakers may eventually discover the futility of their task. The reality of the political process, though, does not lend much credence to such hope.

References

Barth, J.R., and Regalia, M.A. (1988) "The Evolving Role of Regulation in the Savings and Loan Industry." In England, C., and Huertas, T.F. (eds.) *The Financial Services Revolution: Policy Directions for the Future*, 113–61. Boston: Kluwer Academic Publishers.

Barth, J.R.; Feid, J.J.; Riedel, G.; and Tunis, M.H. (1989a) "Alternative Federal Deposit Regimes." Federal Home Loan Bank Board, Research Paper No. 152. Washington, D.C.

Barth, J.R.; Bartholomew, P.F.; and Labich, C.J. (1989b) "Moral Hazard and the Thrift Crisis: An Analysis of 1988 Resolutions." In *Proceedings: Conference on Bank Structure and Competition*, 344–84. Federal Reserve Bank of Chicago.

Barth, J.R., and Brumbaugh, R.D., Jr. (1990) "The Rough Road from FIRREA to Deposit Insurance Reform." *Stanford Law and Policy Review* (Spring): 58–67.

Barth, J.R.; Hudson, C.D.; and Page, D.E. (1991) "The Need to Reform the Federal Deposit Insurance System," *Contemporary Policy Issues* 9(1): 24–35.

Bartholomew, P.F., and Vanderhoff, V. (1991) "Foreign Deposit Insurance Systems: A Comparison." *Consumer Finance Law–Quarterly Report* 45: 243–48.

Benston, G.J.; Eisenbeis, R.A.; Horvitz, P.M.; Kane, E.J.; and Kaufman, G.G. (1986) *Perspectives on Safe and Sound Banking: Past, Present, and Future*. Cambridge, Mass.: MIT Press.

Benston, G.J., and Kaufman, G.G. (1988) "Risk and Solvency Regulation of Depository Institutions: Past Policies and Current Options." *Monograph Series in Finance and Economics*, New York University Graduate School of Business.

Bizer, D.S. (1993) "Examiners Crunch Credit." *Wall Street Journal*, 1 March: A14.

Boyd, J.H., and Rolnick, A.J. (1988) "A Case for Reforming Federal Deposit Insurance." *Annual Report*, Federal Reserve Bank of Minneapolis: 3–16.

Calomiris, C.W. (1989) "Deposit Insurance: Lessons from the Record." *Economic Perspectives*, Federal Reserve Bank of Chicago 13(3): 10–30.

Clair, R.T., and Tucker, P. (1993) "Six Causes of the Credit Crunch." *Economic Review*, Federal Reserve Bank of Dallas (Third Quarter): 1–19.

Dowd, K. (1989) *The State and the Monetary System*. New York: St. Martin's Press.

Dowd, K. (1992) "Models of Banking Instability: A Partial Review of the Literature." *Journal of Economic Surveys* 6(2): 107–32.

Dowd, K. (1993) "Deposit Insurance: A Skeptical View." *Review*, Federal Reserve Bank of St. Louis 75(1): 14–17.

Dwyer, G.P., Jr., and Gilbert, R.A. (1989) "Bank Runs and Private Remedies." *Review*, Federal Reserve Bank of St. Louis 71(3): 43–61.

Ely, B. (1985) "Yes-Private Insurance is a Viable Alternative to Federal Deposit Insurance." In *Proceedings: A Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago: 338–53.

Ely, B. (1994) "Financial Innovation and Deposit Insurance: The Cross Guarantee Concept." *Cato Journal* 13(3) (Winter): 413–36.

Ely, B., and Vanderhoff, V. (1991) "Lessons Learned from the S&L Debacle: The Price of a Failed Public Policy." IPI Policy Report No. 108. Lewisville, Tex.: Institute for Policy Innovation.

Farrell, J. (1987) "Information and the Coase Theorem." *Journal of Economic Perspectives* 1(4): 113–29.

Ferrara, P. (1991) "Capital Standards Alchemy." *Regulation: The Cato Review of Business and Government* (Spring): 11–14.

Flannery, M., and Protopapadakis, A. (1984) "Risk-Sensitive Deposit Insurance Premia: Some Practical Issues." *Business Review*, Federal Reserve Bank of Philadelphia (September/October): 3–10.

Gorton, G. (1984) "Private Clearinghouses and the Origins of Central Banking." *Business Review*, Federal Reserve Bank of Philadelphia (January/February): 3–12.

Hayek, F.A. (1945) "The Use of Knowledge in Society." *American Economic Review* 35(4): 519–30.

Jensen, M.C., and Meckling, W.H. (1976) "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure." *Journal of Financial Economics* 3: 305–60.

Kane, E.J. (1989) *The S&L Insurance Mess: How Did It Happen?* Washington, D.C.: Urban Institute Press.

Kane, E.J. (1991) "Tension Between Competition and Coordination in International Financial Regulation." In England, C. (ed.) *Governing Banking's Future: Markets or Regulation*, 33–47. Boston: Kluwer Academic Publishers.

Kane, E.J. (1993) "Comments." In Kaufman, G.G., and Litan, R.E. (eds.) *Assessing Bank Reform: FDICIA One Year Later*, 69–78. Washington, D.C.: The Brookings Institution.

Kaufman, G.G. (1988) "The Truth about Bank Runs." In England, C., and Huertas, T.F. (eds.) *The Financial Services Revolution*, 9–40. Boston: Kluwer Academic Publishers.

Kaufman, G.G. (1989) "Banking Risk in Historical Perspective." In Kaufman, G.G. (ed.) *Research in Financial Services* 1: 151–64. Greenwich, Conn.: JAI Press.

Kaufman, G.G. (1991) "Capital in Banking: Past, Present, and Future." *Journal of Financial Services Research* 5: 385–402.

Litan, R.E. (1987) *What Should Banks Do?* Washington, D.C.: The Brookings Institution.

Mengle, D.L. (1990) "Market Value Accounting and the Bank Balance Sheet." *Contemporary Policy Issues* 8(2): 82–94.

Miller, T. (1992) "A Citizen's Guide to Banking Reform: Building a Fiscal Firewall Between Taxpayers and Failing Banks." Washington D.C.: Citizens Against Government Waste.

Morris, C.S., and Sellon, G.H., Jr. (1991) "Market Value Accounting for Banks: Pros and Cons." *Economic Review*, Federal Reserve Bank of Kansas City (March/April): 5–19.

Mussa, M. (1986) "Safety and Soundness as an Objective of Regulation of Depository Institutions: Comment on Karenken." *Journal of Business* 59(1): 97–117.

Reekie, W.D. (1989) *Industrial Economics: A Critical Introduction to Corporate Enterprise in Europe and America*. Brookfield, Vt.: Edward Elgar.

Salsman, R. M. (1990) *Breaking the Banks: Central Banking Problems and Free Banking Solutions*. Great Barrington, Mass.: American Institute for Economic Research.

Shaffer, S. (1992) "Marking Banks to Market." *Business Review*, Federal Reserve Bank of Philadelphia (July/August): 13–22.

Shaw, K.D. (1993) "FDICIA at One: A Troublesome Toddler at Best." In Kaufman, G.G., and Litan, R.E. (eds.) *Assessing Bank Reform: FDICIA One Year Later*, 53–58. Washington, D.C.: The Brookings Institution.

Sowell, T. (1980) *Knowledge and Decisions*. New York: Basic Books.

Wheelock, D.C. (1993) "What Have We Learned about Deposit Insurance from the Historical Record?" *Review*, Federal Reserve Bank of St. Louis 75(1): 10–14.

White, L.J. (1991) *The S&L Debacle: Public Policy Lessons for Bank and Thrift Regulation*. New York: Oxford University Press.

White, L.J. (1992) "What Should Banks *Really* Do?" *Contemporary Policy Issues* 10(3): 104–12.

Woodward, S. (1988) "A Transaction Cost Analysis of Banking Activity and Deposit Insurance." *Cato Journal* 7(3): 683–99.