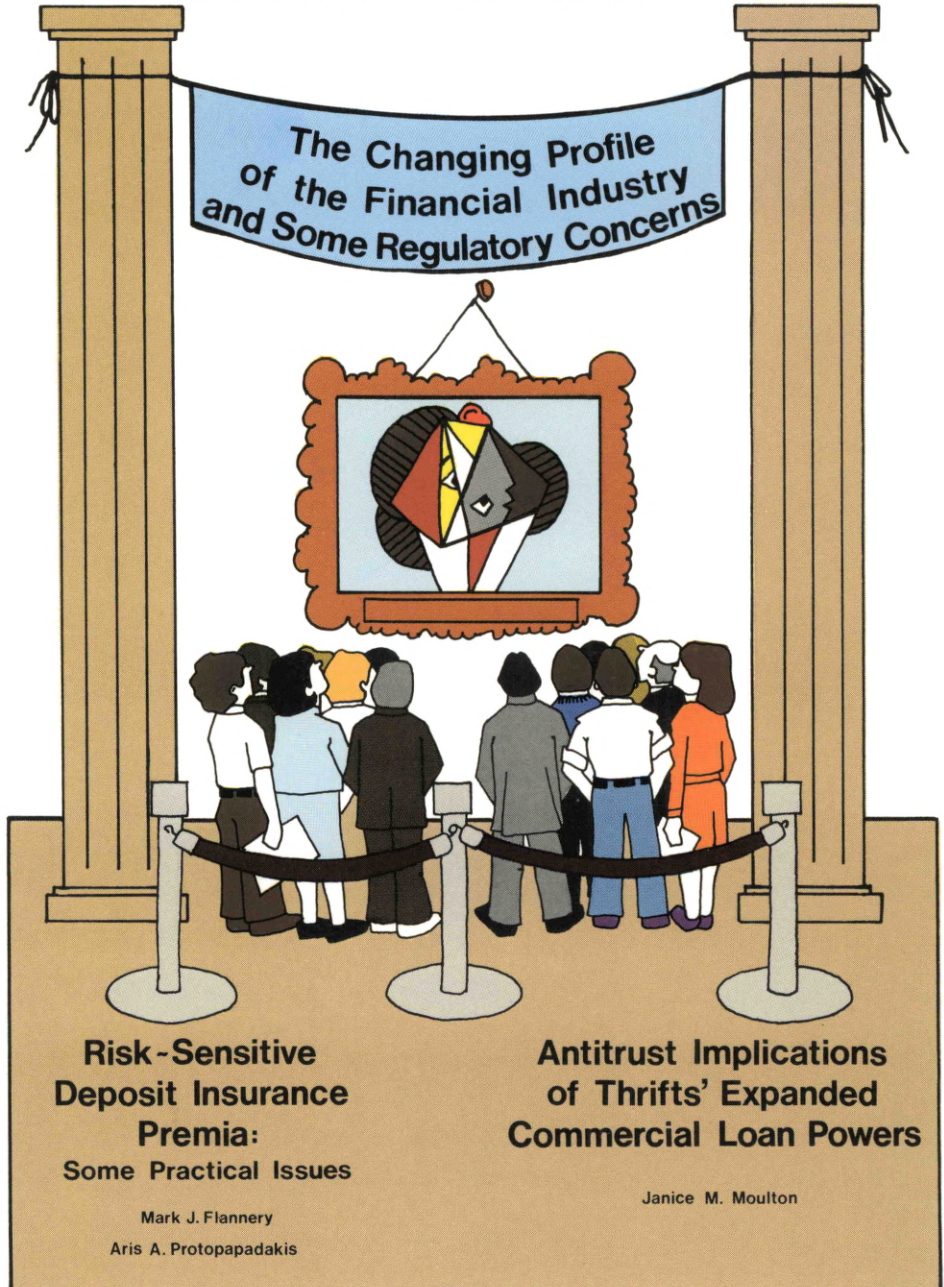


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THE CHANGING PROFILE OF THE FINANCIAL INDUSTRY AND SOME REGULATORY CONCERNS

Recent legislation has lifted many regulations that had stood for fifty years, and has authorized new powers for financial institutions. Banks, thrifts, and other firms have begun to adapt to this environment, and they are using their new powers to reshape the industry's profile. At the same time, the institutions charged with regulating the financial industry are also adapting. The articles in this issue of the *Business Review* examine some of the concerns of regulators in light of the emerging profile of the financial industry. Mark J. Flannery and Aris A. Protopapadakis consider recent proposals to revamp federal deposit insurance by replacing some of the regulation with premia priced to reflect banks' risk. Finding this approach not significantly different from or better than the present system, they also identify other means of increasing banks' responsiveness to risk. Janice Moulton looks at the expanded loan powers authorized to thrifts, and, focusing on Pennsylvania, describes the implications of increased competition for bank merger analysis.

RISK-SENSITIVE DEPOSIT INSURANCE PREMIA: SOME PRACTICAL ISSUES

Mark J. Flannery and Aris A. Protopapadakis

ANTITRUST IMPLICATIONS OF THRIFTS' EXPANDED COMMERCIAL LOAN POWERS

Janice M. Moulton

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The Federal Reserve Bank of Philadelphia is part of the Federal Reserve System—a System which

includes twelve regional banks located around the nation as well as the Board of Governors in Washington. The Federal Reserve System was established by Congress in 1913 primarily to manage the nation's monetary affairs. Supporting functions include clearing checks, providing coin and currency to the banking system, acting as banker for the Federal government, supervising commercial banks, and enforcing consumer credit protection laws. In keeping with the Federal Reserve Act, the System is an agency of the Congress, independent administratively of the Executive Branch, and insulated from partisan political pressures. The Federal Reserve is self-supporting and regularly makes payments to the United States Treasury from its operating surpluses.

Risk-Sensitive Deposit Insurance Premia: Some Practical Issues

*Mark J. Flannery and Aris A. Protopapadakis**

Federal deposit insurance emerged in the United States in 1933, following a widespread loss of confidence in the banking system which precipitated an unprecedented number of bank failures. The mood of the day was one in which one bank's demise tended to generate concern that others

would fail. Accordingly, depositors would "run" on their banks in an effort to withdraw funds while there was still time. Such a banking "panic" could *cause* an otherwise sound bank to fail. Congress sought to restore public confidence in financial institutions by creating public deposit insurance corporations, which substituted the credit of the federal government for the credit of individual private banks. Federal deposit insurance virtually eliminated bank panics, but it introduced another type of inefficiency. In particular, the way deposit insurance is priced induces insured institutions to take on an excessive amount of risk. To counteract

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this influence on banks' choices of investments, the federal insurance agencies have imposed a system of restrictive regulations designed to limit insured institutions' risk-taking.

An optimal insurance system would eliminate the possibility of banking panics without distorting the insured banks' investment decisions. The extent to which our present deposit insurance system achieves these two objectives is a debated issue. Many bankers (and others) contend that existing regulations unduly restrict their ability to undertake reasonable risks. On the other side, the insurance agencies tend to feel that their traditional regulations have become insufficient to the task of controlling bank risk-taking in today's financial environment. As a result, there is growing support for reform of the current deposit insurance system.

One prominent view of appropriate reform would have the federal agencies set deposit insurance premium rates to reflect each institution's risk, as many types of private insurance do. Such "risk-sensitive premia," it is claimed, would lessen, or even eliminate, bankers' incentives to take on excessive risks, and they would allow restrictive regulations to be reduced. The two largest federal insurance agencies (Federal Deposit Insurance Corporation (FDIC) and Federal Savings and Loan Insurance Corporation (FSLIC)) recently have expressed their support for changing the way their insurance premia are set. FDIC has gone so far as to propose a specific plan for charging higher insurance premia for banks with larger exposures to certain types of risks.

Designing an optimal U.S. deposit insurance system is a very complicated problem, to which we have no easy solution. We do, however, offer some important observations about the extent to which risk-sensitive premia *set by a federal insurance agency* can be expected to replace successfully the current system of regulatory restrictions. Though the concept of risk-sensitive premia is theoretically appealing, some of its proponents may have exaggerated the net effect this reform would have on private financial decisions. Rather than allowing the federal government to *withdraw* from influencing private financial decisions, the introduction of risk-sensitive premia would simply require a *different type* of intervention. The difficulties associated with implementing a system of risk-sensitive federal insurance premia make it

unlikely that such a system would be superior to the current system of restrictive regulations. Instead, the federal insurers might have to rely more on the private sector for controlling bank risk-taking in the current financial environment.

FIXED-PREMIUM DEPOSIT INSURANCE AND BANK RISK-TAKING

Currently there are three federal insurance agencies: FDIC for commercial and mutual savings banks, FSLIC for savings and loan associations, and the National Credit Union Share Insurance Fund (NCUSIF) for credit unions. Because each agency faces similar problems, we will refer to them collectively as the "federal insurer," and although there are several types of insured institutions, we will call them all "banks."

The federal insurer currently charges all banks the same premium rate, regardless of their financial condition. In return, the agency insures certain types of bank deposits against loss in the event of a bank's failure. Despite a statutory limit on its liability to a failed bank's depositors, the insurer has acted in the majority of cases to protect all liability-holders via a transaction called "purchase and assumption" in which a solvent institution *purchases* some or all of the failed bank's assets and *assumes* its outstanding (insured *and* uninsured) liabilities (see CURRENT FDIC INSURANCE PRACTICES). The net result is that most or all bank liability-holders feel that their deposits are fully protected by the federal insurer.

Such blanket insurance creates a problem because it distorts bankers' incentives to take on risk. Decisions about risk-taking in the financial sector generally require an investor to evaluate a trade-off between higher expected profits and greater risk. As a result, the cost of funds is higher for investors engaged in riskier undertakings. For insured banks, however, depositors believe there is no need to evaluate or monitor risk because their deposits are insured *de facto* by the federal insurer. They have no incentive to monitor the risk-taking behavior of their bank, nor do they require a rate of interest that reflects in any way the riskiness of bank assets. When a bank's creditors (depositors) do not share in the losses that arise from default, the bank can borrow funds at a rate independent of the use to which those funds are put. The usual market process—whereby riskier

CURRENT FDIC INSURANCE PRACTICES

A discussion of FSLIC or NCUSIF insurance parallels that of FDIC. To save space, we refer here only to FDIC.

FDIC currently charges each bank a gross annual insurance premium of 1/12 percent (8.3 basis points) of its total deposits, without regard for the bank's financial condition. Legislation requires that, on average, 60 percent of the premium income (after expenses) be rebated to insured banks. Before 1981, FDIC expense levels left the average net cost of insurance at about 4.3 basis points. (The large number of bank failures in 1981 and 1982 raised the effective insurance cost to 7.7 and 7.1 basis points, respectively.) In return for their premium payments, FDIC formally promises to pay a failed bank's depositors up to \$100,000 per account (per bank).

Although the FDIC is not obligated to pay off deposit balances above \$100,000, historically it has handled most failures in a way that protected all liability-holders (not just depositors up to \$100,000) from loss. When an insured bank fails, FDIC has two major options. First, it can "pay out" to depositors 100 percent of their insured funds and leave uninsured liability holders to be paid as general creditors of the bank under the bankruptcy laws. Alternatively, FDIC (in cooperation with the other banking regulators) can arrange a "purchase and assumption" (P&A) in which another bank *purchases* some (or all) of the failed bank assets and *assumes* all of its liabilities. In the course of this transaction, the FDIC frequently exchanges some of the failed bank's weaker assets for cash at book rather than at market value. Creditors acquire a claim on the new bank equal to their previous claim on the failed one. Since its inception, FDIC has handled about half of all insured bank failures by P&A rather than by straight payout. More importantly, the P&A route has been used in failures accounting for the vast majority (94.6 percent) of failed banks' total *deposits*. (Prior to the pay-out of the \$517 million Penn Square National Bank's depositors in 1982, the largest bank failure to be handled via payout had deposits of \$66.9 million). Less than 1.1 percent of all failed bank liabilities have actually been lost by the public since FDIC began operations in 1934. It appears therefore that FDIC procedures have made the public believe *all bank liabilities* are insured *de facto*, even if the *de jure* limit is \$100,000 for *deposits* alone.

To limit its exposure, FDIC assesses and controls bank risk by a system of restrictive regulations on permissible financial activities and by periodic on-site examinations intended in part to ascertain compliance with these regulations. Each examination produces a summary rating of the bank's condition, called the CAMEL rating (because it is based on federal examiner assessments of a bank's Capital, Assets, Management, Earnings, and Liquidity) which ranges from "one" (the best condition) to "five" (the worst). Banks with relatively poor CAMEL ratings are subjected to additional supervisory oversight, for example, being required to file frequent, detailed plans for correcting the examiner's perceived problems. In the extreme, FDIC can replace managers and order the bank to curtail certain types of activities.

activities are funded only if they offer a correspondingly higher expected return—thus becomes inoperative. Banks can profit by making riskier investments than they would in the absence of federal deposit insurance: if the more risky assets pay off, the bank owners gain; but if the assets do not pay off and the bank fails, the federal insurer compensates bank creditors for their losses.

In such an environment, bank owners can increase their expected profits by excessively increasing the riskiness, and thus the expected return, of their assets.¹ This increased risk-taking can take

many forms. Financing relatively risky projects (a recent example might be energy loans), increasing the maturity mismatch between the bank's assets and liabilities, reducing the asset portfolio's diversification, operating with limited amounts of capital, and aggressively entering new investment areas in which the bank has little expertise are but a few examples of increased risk-taking. This increased risk-taking represents an example of a general implication from economic theory: insurance premia that are unrelated to the risk being insured affect the insured institution's risk-taking

¹The socially appropriate amount of bank risk-taking would result if the deposit insurer could eliminate bank "runs," while pricing deposit insurance in a way that accurately reflected each bank's probability of failure. For a more detailed discussion

of why banks tend to undertake (socially) excessive risks under the current insurance system, see Mark J. Flannery, "Deposit Insurance Creates a Need for Bank Regulation," this *Business Review*. (January-February 1982) pp. 17-27.

incentives. In other words, such insurance premia *distort* private decision-making. Such a distortion of risk-taking incentives affects the economy as a whole, in addition to the obvious implication that there will be a larger number of bank failures. Banks' artificially increased incentive for risk-taking means that some risky projects are funded that would have looked unattractive otherwise. As a result, private financial incentives may induce the economy to undertake more risk than it would in the absence of such a distortion.²

The federal deposit insurer has sought to counteract the economic inefficiencies that arise from such distortions with an extensive system of restrictive regulations governing insured institutions. (Similarly, private insurance companies often impose preconditions for insurance, for example, requiring that an insured warehouse include an adequate sprinkler system to limit fire damage.) These regulations are designed, in part, to limit banks' ability to increase their riskiness in response to fixed-premium deposit insurance. As financial market conditions changed, banks discovered new kinds of risk-taking opportunities, and regulators countered with more regulation in an effort to limit banks' ability to take on excessive new risks.

Recent financial market developments raise the question of whether regulations will continue to be sufficient to the task. Banks have entered a new (and growing) set of activities (such as insurance underwriting, brokered CDs, deregulated retail deposit competition, and discount brokerage) that many observers view as riskier than traditional bank operations. Furthermore, a new regulatory environment has allowed financial markets to integrate nationwide, as more states allow state-wide banking, and as interstate mergers and acquisitions become part of the rescue process for ailing thrift institutions. These developments have increased competition among financial institutions, which has increased pressures at all levels

²A useful analogy can be drawn with the case of federal flood insurance. Without federally subsidized flood insurance, the cost of living in a flood plain would be higher because each occupant would fully bear her own losses. Cheap insurance against flood damage lowers the expected cost of living in a flood plain, which induces more people to do so. The result is that society suffers an excessive amount of flood damage—more than would be suffered if everyone bore her own losses.

of government to deregulate the financial system. (The Depository Institutions Deregulation and Monetary Control Act of 1980 and the Garn-St. Germain Act of 1982 are examples of this deregulation trend.) Given the increases in potential bank risk-taking strategies on the one hand, and the shrinking arsenal of regulations on the other, the federal insurer feels increasingly unable to control its own risk exposure. It is worried that its traditional tools for limiting bank risks are obsolete, and that the current pressures for deregulation may not allow it to impose sufficient new regulations on banks. If new regulations are not imposed, distortions to bank risk-taking will grow, with more bank failures and larger federal insurance payoffs the likely result.

Because of these concerns, the FDIC proposes to change its method of controlling bank risk. Rather than rely exclusively on restrictive regulations, the FDIC proposes to vary its deposit insurance premia in a way that reflects each individual bank's risk of failure (see THE FDIC PROPOSAL). By charging a risk-related insurance premium, the FDIC hopes to move in the direction of restoring the proper incentives for risk-taking by financial institutions. This development would, in turn, reduce the need for regulation. The crucial, and controversial, question is: To what extent could risk-related deposit insurance premia actually substitute for regulation?

SOME DIFFICULTIES WITH A RISK-SENSITIVE PREMIUM SYSTEM

The FDIC's proposed system of risk-related insurance premia is one example of how such a plan might work. Rather than concentrate on one particular plan, we will analyze the general arguments for moving to a fully risk-sensitive deposit insurance premium system.³ The principal argument in favor

³An alternative way to reduce the inefficiencies associated with federal deposit insurance might be privatization of the deposit insurance system. However, we feel that private insurers are not fully credible, and that they would not remove entirely the potential for banking panics. For a more complete, and sanguine, discussion of a private deposit insurance system, see Eugenie D. Short and Gerald P. O'Driscoll, Jr., "Deregulation and Deposit Insurance", Federal Reserve Bank of Dallas *Economic Review* (September 1983), pp. 11-22, or Evelyn F. Carroll and Arthur J. Rolnick, "After Penn Square: The Insurance Dilemma," in *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, 1983.

THE FDIC PROPOSAL

FDIC proposes (in its report "Deposit Insurance in a Changing Environment" (April 1983), pp. II-9 to II-21) a small step toward risk-sensitive deposit insurance premia. Under current law, FDIC may vary the amount of rebate it gives to individual insured banks. In addition to its CAMEL ratings, FDIC proposes to evaluate each bank's exposure to interest rate risk and to credit risk as "normal," "high," or "very high." Only banks judged to have "normal" risk will receive their full insurance premium rebate (60 percent of premium income less expenses). "High" risk banks will receive a 30 percent rebate and, "very high" risk banks will receive no rebate at all. Based on pre-1981 experience, the resulting net insurance costs would then be approximately:

- 4.3 basis points to normal risk banks,
- 7.1 basis points to high risk banks,
- 8.3 basis points to very high risk banks.

Under this scheme, riskier banks will wind up paying higher insurance premia, though some observers doubt whether the range of the variation is sufficiently broad to induce substantial changes in behavior from insured institutions.

To raise a bank's cost of increasing bank risk still further, FDIC will begin charging for its cost of providing extraordinary supervisory services to banks with relatively poor CAMEL ratings. These added costs—coming at a time when the bank is probably experiencing other difficulties as well—is likely to make banks plan more carefully to avoid becoming classified as highly risky.

of risk-sensitive insurance premia is that such premia will bring bankers' assessments of the costs and benefits of risk-taking closer to those that exist in the unregulated financial markets, and that regulation will become largely superfluous as a result. One extreme view of risk-sensitive deposit insurance holds that the federal insurer could remove *all* restrictive bank regulations by using insurance premia that mimic accurately market risk evaluations.⁴ But an assessment of the practical difficulties provides convincing evidence that the federal insurer cannot hope to set insurance premia with the degree of accuracy required by this view.

Proponents of risk-sensitive insurance premia prefer economic signals to be transmitted via a pricing mechanism rather than via restrictive regulations. Unfortunately, however, the usual economic argument that a pricing system generally leads to efficient decisions does not apply when a single party unilaterally sets prices (in this case, the insurance premia). In the case of federal

deposit insurance, the insuring agency must identify the types of risk banks are exposed to and then determine the premium that it will attach to each risk. This closely resembles the current procedure, which is to identify the relevant banking risks and then devise regulations that limit the banks' exposure to each risk to a socially desirable level. In other words, the insuring agency needs *precisely the same* information to set federal insurance premia as it needs to devise an appropriate set of restrictive regulations under the current premium system. There is nothing to suggest that the information available to bank insurers can be utilized more effectively with a risk-sensitive premium than with the current arrangement (or vice versa). Unless the insurers' premia exactly equal the risk premia uninsured depositors would demand in a perfectly-informed financial market, the federal insurance system will continue to distort private risk-taking decisions (for the same reasons we discuss above). Accordingly, the arguments in favor of risk-sensitive deposit insurance premia suffer several serious shortcomings that must be recognized in the policy debate.

No Single Insurer Can Expect To Assess Risk Perfectly. In the real world, differing evaluations or assessments of risks and returns are common. A banker may lend to an applicant whom another banker has turned down; some investors purchase shares in a certain stock while others get rid of those shares; some analysts predict a rise in in-

⁴See Allen H. Meltzer, "Major Issues in the Regulation of Financial Institutions," *Journal of Political Economy* (August 1967, Part 2), pp. 482-501, or Kenneth E. Scott and Thomas Mayer, "Risk and Regulation in Banking: Some Proposals for Federal Deposit Insurance Reform," *Stanford Law Review* (May 1971), pp. 857-902. The FDIC's "Deposit Insurance in a Changing Environment" (April 1983) provides a summary of the recent literature in favor of risk-sensitive premia in its Appendix A.

terest rates while others expect a decline. Just like any other agent in the financial sector, the insurer must anticipate that its insurance premium formula will underprice some risks (in the opinion of the average insured banker) and overprice others. The federal insurer's premia therefore will continue to distort bank investment decisions. Risks considered to be underpriced will expand in bank portfolios while overpriced activities will contract. This result is similar to the current effect of flat risk-premia on bank investments. If imperfect risk-sensitive insurance premia are used instead of restrictive regulations, individual banks, and the banking system, may remain riskier than desired. For example, suppose the insuring agency overprices the risk premium for international loans, but underprices the risk-premium on home mortgage loans. Then international loans may shrink but mortgages will expand relative to their appropriate level. There is no guarantee that the result would be a banking system with less risk than we have currently.

Knowing that it will underprice at least some types of risk, but not knowing which ones, the federal insurer will want to prevent banks from having large exposures to any one type of risk. The most obvious way to avoid large exposure is to promulgate regulations that prohibit "extreme" bank portfolio concentrations. As a practical matter, therefore, risk-sensitive insurance premia probably cannot displace restrictive regulations entirely.

Public Institutions May Have Special Problems.

Another crucial difficulty is related to the nature of public institutions such as the FDIC, FSLIC, and NCUSIF. Public institutions' decisions are subject to public scrutiny. Such scrutiny can involve lengthy debates, appeal procedures, and compromises between economic efficiency and political needs. Even the most well-meaning and efficient public institutions move with glacial speed compared to the rapid assessment of information and the continuous reassessment of risk that takes place in the financial markets. Therefore, even if the insuring agency initially manages to assess correctly the risk categories and their risk-premia, it will not be able to keep up with subsequent changes in the market perceptions of those risk categories. Risk premia, then, will tend to reflect past realities. The staff of such public insurers will tend to price

yesterday's banking risks, because these risks are at least documentable from past experience, making the pricing less controversial. The staff would be reluctant to assess and project current and future risks, because such projections involve judgements that may be controversial and debatable, and will be regularly challenged in public.

An example that comes readily to mind concerns loans to less developed countries. Given the recent history of such loans, the federal insurer setting risk-sensitive premia would probably set high risk premia for existing and future loans to third world countries, even if the true riskiness of these loans were declining. Furthermore, it would take a long time to reduce these risk premia, even after the true risks decline. Conversely, political pressures would have made it very difficult for the federal insurer to declare loans to countries like Argentina, Brazil and Mexico to be high risk loans before the debt crisis erupted, *even if* the staff had developed strong indications that the riskiness of loans to these countries was on the increase.

Whereas the assessment of risk in efficient markets is forward-looking, the federal insurer's assessment will be mostly backward-looking. Existing risks are bound to become mispriced over time, and it would take a long time to decide whether, and how, to price new risks.⁵ This situation will provide still further impetus toward a system of restrictive regulations to supplement the structure of risk-sensitive premia.

ALTERNATIVES TO RISK-SENSITIVE PREMIA

The preceding discussion strongly suggests that risk-sensitive insurance premia will never replace entirely regulatory restrictions on bank activities. Furthermore, there is no assurance that the system of regulation that accompanies risk-sensitive insurance premia will be significantly less intrusive, or even less extensive, than what exists now. We must recognize that risk-sensitive deposit insurance premia represent only a *change in the form* of insurer intrusion on private financial decisions, not an *end* to such intrusions. Restrictive regu-

⁵Furthermore, banks would surely protest risk assessments they considered excessive more vigorously than those they considered too low. The result would be a tendency toward an overall downward bias in risk-sensitive insurance premia, which is similar to what we have today with fixed premia.

lations and risk-sensitive premia can, at best, complement one another in the attempt to control and limit bank risk-taking to a socially appropriate level.

Many of the problems identified so far result from the fact that a single public agency must anticipate the activities of a number of private institutions and respond to them. This fact is independent of whether the agency tries to exert control through prices or through restrictive regulations. The process is administratively costly; it rarely works smoothly or efficiently. One way to supplement the federal insurer's risk assessment would be to increase the risk exposure of bank shareholders and depositors to a limited extent. Investors then would have a stronger incentive to monitor and react to banks' risk exposures, raising the cost of funds to banks that choose to pursue riskier investment strategies.

Increasing Shareholders' Risk Exposure. The distortion associated with the current federal deposit insurance scheme is that shareholders have unbounded potential for gain when they increase their portfolio risk, but they can never lose more than their invested capital. The most obvious way to increase shareholders' concern for bank risk therefore is to raise the proportion of their own capital that must be put into the bank's investments.⁶ Because this gives shareholders a larger potential loss if an investment turns sour, they will instruct bank managers to take somewhat less risk. The added bank capital need not necessarily take the form of additional equity. Similar results could be achieved if banks issued more long-term debt subordinated to deposit liabilities. Investors in such debt instruments are (presumably) sophisticated enough to evaluate risk correctly, so the rates banks would pay on this subordinated debt would fully reflect the probability of default. At the same time, the debt's long maturity would reduce the likelihood of destabilizing "runs" if the

bank encounters subsequent difficulties.

A second way to increase shareholders' potential losses would be to reform the insurer's procedures for handling troubled banks. History offers several examples of federal aid in the form of subsidized loans or equity contributions to avert bank failures. Eliminating or severely restricting such aid would make shareholders feel less protected from the results of their bank's portfolio risk.

A more drastic way of shifting risk to bank shareholders would involve redefining which bank liabilities the government is willing to insure. The case for federal deposit insurance is strongest for short-term, demand-type deposits that can be withdrawn easily during a crisis of confidence. If the government wishes to insure this kind of deposit (to protect the financial system from runs and other disturbances), it can do so without introducing large distortions. In particular, the insurer could require that insured, demand-type liabilities be issued by a distinct subsidiary of the banking firm, whose permissible investments would be limited to short-term, very high quality securities. Banks could undertake a broad range of investment *outside* their federally-insured affiliates, and investors purchasing those uninsured bank liabilities would know they were subject to default risk. The net effect would be to reduce bank shareholders' ability to borrow via insured deposits at a riskless rate, so their interest cost (and hence their profits) would reflect the riskiness of their investment portfolios.

Increasing Depositors' Risk Exposure. The federal insurer could make large depositors (over \$100,000 per account) more sensitive to bank risk by handling more bank failures via straight payout and fewer by "purchase and assumption" (P&A). This change would increase the perceived risk of uninsured liability holders, and it would help bring the average rate banks have to pay on uninsured liabilities in line with the riskiness of the bank portfolio. In other words, under existing law, the insurers could choose to compensate only insured depositors, letting uninsured depositors suffer losses in the event of a bank failure. A straight payout is not without its drawbacks, however, because the failed bank's intangible assets (like accumulated local lending expertise and customer relationships) are destroyed in the process. A P&A has the advantage of preserving these in-

⁶Such a move towards transferring some of the banking system's risk to private individuals (and away from FDIC) was announced in July 1984. The FDIC, the Office of the Comptroller of the Currency, and the Federal Reserve have proposed to set a minimum capital standard for all U.S. banks. This new standard would require "about 700 of the nation's approximately 15,000 commercial banks to raise hundreds of millions of dollars in new capital" (*New York Times*, July 11, 1984).

tangible assets. To make uninsured depositors sensitive to bank risk-taking, therefore, the insurers might modify their P&A procedures to transfer only some fraction of uninsured liabilities to the purchasing institution. An important caveat here is that transferring *too much* risk to depositors can cause the type of bank run federal insurance was designed to prevent.⁷

FDIC already has begun to experiment with this process. For example, it decided to let large depositors suffer some losses in two banks that failed in March 1984: "Regardless of whether other banks were found to take over the two [failed] institutions, depositors with accounts larger than the \$100,000 FDIC insurance limit would be treated as general creditors and wouldn't be fully protected" (*Wall Street Journal*, March 21, 1984, page 15). Revising the P&A process in this way would have even greater effects on private risk-monitoring if the statutory insurance limit were lowered from its current \$100,000 level.⁸ The Banking Act of 1933

⁷ See Douglas Diamond and Philip H. Dybvig, "Bank Runs, Deposit Insurance, and Liquidity," *Journal of Political Economy* (June 1983), pp. 401-419.

⁸ In a related development, FDIC and the Federal Home Loan Bank Board (FHLBB) recently have attempted to remove most formal insurance protection from deposits placed in an insured bank by brokers. Over the past few years, a number of brokerage firms have arisen to bring together banks needing funds with depositors outside the banks' customary geographic market area. Previously, a bank might borrow via large (\$1 million) certificates of deposits. If these balances were uninsured (at least *de jure*), potential depositors would screen carefully the riskiness of banks to which they lent. Riskier banks could borrow only by paying relatively high deposit rates. By using a CD broker, however, the bank could borrow the same amount (or more) via fully insured \$100,000 CDs. Customers with large balances to lend could use brokers to split up their investments into smaller, fully insured components. The FDIC and FHLBB proposed a rule that was supposed to take effect October 1, 1984 to address this problem. Under the rule only \$100,000 per broker (per bank) would be insured, giving brokers and their customers a greater incentive to evaluate bank risk. A federal court judge voided this rule in June 1984, saying that the regulatory agencies did not have the authority to impose such a change in insurance coverage.

initially set an insurance limit of \$2,500, which is roughly equivalent to \$10,000 in 1983 dollars.⁹ With lower insurance limits, depositors would have more incentive to evaluate bank risk and demand appropriate compensation in the form of higher deposit rates from institutions that were deemed to carry the greatest risk of default.

CONCLUSION

Some writers have maintained that risk-sensitive deposit insurance premia can be substituted effectively for financial sector regulation to limit bank risk-taking to an acceptable level. This view, however, fails to recognize that both risk-sensitive premia and restrictive regulations require the insurers to gather and process the *same* amount of information. Furthermore, a public insurer setting risk-sensitive premia will necessarily suffer from the same lags in decision-making that have made restrictive regulations a cumbersome tool in the past. Therefore, there is no reason to believe that the federal insurer can control bank risk-taking any more effectively with risk-sensitive premia than it can currently with restrictive regulations. The potential theoretical advantages of risk-sensitive premia must be weighed carefully against the serious difficulties that arise in practice, and against the benefits of alternative schemes that do not involve risk-sensitive premia.

A partial alternative to public sector controls on bank risk-taking may be to increase the incentive for private sector monitoring. Private sector evaluations are likely to be more timely than those reached in the public domain, regardless of whether the latter are transmitted to insured institutions via premia or regulations. Because of the possibility of bank runs, however, the provision of federal deposit insurance will probably be accompanied by direct federal limitations on private risk-taking. The pending policy issue is *how* that federal intervention can best be effected.

⁹ Very shortly after FDIC began operations, this limit was raised to \$5,000.

Antitrust Implications of Thrifts' Expanded Commercial Loan Powers

*Janice M. Moulton**

With the deregulation of financial institutions, thrifts have gained expanded asset and liability powers, and the distinctions between commercial banks and thrift institutions have eroded.¹ Previously, commercial banks were thought to offer a

unique cluster of banking services; they were the only institutions offering personal checking, commercial checking, and unsecured commercial loans. Now thrifts' legal restrictions on offering these services have been eased, and they are beginning to compete directly with banks in both commercial and consumer services.

More direct competition between banks and thrifts, particularly in commercial loans, has major antitrust implications. Regulators are charged with ensuring that bank mergers will not substantially reduce competition in banking markets. The way that regulators try to keep markets competitive is to prevent the banking markets from being domi-

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¹For the purposes of this article, thrift institutions include savings and loan associations and both mutual and stock savings banks, but exclude credit unions.

nated by a few banks, which might use their market power to raise prices—in particular, interest rates on loans—or to block the entrance of new firms. Before thrifts were authorized these new powers, the Supreme Court did not consider them to be competitors of banks, ruling that thrifts must “significantly participate” in commercial lending and deposit-taking services in order to be included in what is called the commercial banking line of commerce. Now that thrifts look more like banks in terms of their authorized powers and the services they offer, regulators are viewing thrifts as increasingly important competitors with banks. The presence of thrifts in the commercial banking line of commerce makes it easier for a merger between commercial banks to be approved by bank regulators, since more competitors would be present in the market. Indeed, regulators recently have approved some bank mergers—which they would have denied otherwise—on just these grounds.

Pennsylvania provides a good example of a state where thrift competition with banks in making commercial loans can be important in analyzing mergers. For many years, Pennsylvania, like other states in the northeast, has had thrifts that are active competitors in making loans and attracting deposits. Moreover, recent changes in the state’s banking law have encouraged many banks to merge. The extent of competition can be assessed using measures of thrifts’ commercial loan activities, from both a market share and a balance sheet viewpoint. A picture of some increased thrift competition emerges, reinforcing the view that a more comprehensive analysis of thrift competition is necessary in assessing the effects of bank mergers.

ANTITRUST ISSUES

Mergers and Competition. There is one undeniable fact about mergers—the merged firm or holding company is larger than either of the two separate firms that existed previously. But whether the resulting firm acts to reduce competition or to strengthen it depends on many factors and ultimately involves subjective judgment. Certainly mergers can have important positive effects on the way firms compete. Mergers can increase a firm’s efficiency by facilitating more effective use of investment capital and the sharing of productive assets, such as computer equipment and technology.

Two firms producing similar services may find that, by combining their resources, they can offer a larger volume of those services at a lower unit price than either could before. Or perhaps two institutions find that their services complement one another’s strengths. Thus the combined institution may be able to offer higher quality services, or more of them. In addition, mergers may indicate that the new owners believe they can better manage the institution and increase performance. In these cases, consumers can benefit from mergers because customers are likely to receive lower prices, a greater variety of products, or better quality or convenience of service.

While most mergers have beneficial effects, there may be mergers which are harmful to competition. Mergers sometimes are used to promote collusion in a market, especially where a few large firms sell most of the product. Collusion occurs when the parties agree to coordinate their actions to reduce competition in the market, and thus are able to exercise market power. Market power is the “ability of one or more firms profitably to maintain price above competitive levels for a significant period of time.”² When mergers create market power or facilitate its use, consumers are hurt because they face higher prices—lower interest rates on deposits or higher interest rates on loans, in the case of banking—lower service levels, or a restricted menu of products. In addition, resources are impeded from moving into products where they would flow if markets were competitive.

The antitrust laws attempt to prevent adverse competitive effects from occurring in proposed mergers. Section 7 of the Clayton Act prohibits mergers if their “effect may be substantially to lessen competition, or to tend to create a monopoly” in any line of commerce in any section of the country.³ It’s up to the regulatory agencies—the Federal Reserve (Fed), the Federal Deposit Insur-

²U.S. Department of Justice Merger Guidelines, June 14, 1982, p. 3. Market power also applies to the ability of buyers to lower the price paid below competitive levels (often called “predatory pricing”), and to the ability of the buyer or seller to reduce competition in other respects as well.

³See section 7 of the Clayton Act as amended by the Celler-Kefauver Act of 1950. The Supreme Court has interpreted “line of commerce” to mean the market for the product and “section of the country” to mean the geographic market.

ance Corporation (FDIC), and the Comptroller of the Currency—to interpret this legal framework and to apply it to the banking business in a way that denies those few merger proposals that are anticompetitive, yet does not hinder the many mergers that do not impair competition.⁴ When assessing the competitive effects of mergers, regulators first must decide on the geographic market and on which institutions compete there. Deciding what type of financial institution to include in the analysis depends upon how the product or service line is defined; the more specific the product line is, the narrower the range of qualifying financial institutions. Thus the choice of competing institutions affects the chances of regulatory approval.

Supreme Court Rulings on Bank Competitors. Supreme Court decisions help guide the regulatory authorities in determining which institutions are competitors when applying antitrust laws to banking. In the 1963 landmark decision, *United States vs. Philadelphia National Bank*, the Supreme Court defined commercial banking for the first time as a separate line of commerce. That is, commercial banks were thought to offer local customers a cluster of banking services different from any other depository institution. At that time, commercial banks were essentially the sole suppliers of many banking services, such as business and personal demand deposits, bankers' acceptances, correspondent banking services, and commercial loans. The court also stressed the customer convenience of buying the unique cluster of banking services from the same institution.

The Supreme Court reaffirmed its 1963 decision that commercial banking is a separate line of commerce in *United States vs. Phillipsburg National Bank* (1970). This case involved the proposed merger of two small commercial banks in New Jersey whose loan portfolios included a large amount of residential real estate loans. Since the

portfolios of these banks were similar to those of many thrifts, the question was whether local thrifts could be considered competitors of small commercial banks. The Court's answer was no, rejecting any broadening of the line of commerce. It emphasized again that commercial banks had the authority to provide a wide range of banking services unavailable at other types of financial institutions. In this way, the court distinguished between banks and other financial institution competitors based on the powers authorized to them, rather than on the extent to which they exercised those powers.

In the 1974 Connecticut National Bank case, however, the Supreme Court's decision recognized that mutual savings banks, particularly in New England, were indeed "fierce competitors" with commercial banks in some service lines.⁵ Yet, while not requiring equivalent powers in *all* areas, the court stressed that thrifts must offer a number of personal and commercial banking services in order to be included as competitors. Further, thrifts needed to "significantly participate" in major service lines. While finding that thrifts did not qualify yet as competitors in the banking line of commerce, the court left the door open by admitting that at some future time thrifts may become significant competitors. In setting up preconditions for including thrifts, the court anticipated a time when thrifts might become a routine part of merger analysis.

Since the last Supreme Court decision in 1974, sweeping changes have been made in the laws governing thrift asset and liability powers. Originally established to encourage savings and to promote home purchases, thrifts have maintained a sheltered tax status and have continued to specialize in residential mortgages.⁶ But in the last

⁵*United States vs. Connecticut National Bank* (418 U.S.664).

⁶Tax incentives encourage thrifts to hold a high percentage of their assets in the form of residential mortgages. If savings and loans have 82 percent of their loan portfolio in certain qualifying assets, mainly residential mortgages and U.S. government securities, they receive a bad debt deduction equal to 40 percent of their taxable income. This bad debt allowance is reduced an additional .75 percent of income for each successive 1 percent drop in qualified assets below the 82 percent level. See "Tax Barriers to Diversification by Savings and Loan Associations," by Herbert Baer, Proceedings of a Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago, May 1983.

⁴The Comptroller is the agency responsible when the institution resulting from the merger is a national bank; the FDIC handles state-chartered banks that are not members of the Federal Reserve System; and the Fed handles state-chartered banks that are members of the Federal Reserve System. Where relevant, each agency submits advisory opinions to the responsible agency and to the Justice Department. There is a 30-day waiting period before the merger is consummated to allow the Justice Department time to bring suit under the antitrust laws.

few years, restrictions on thrifts have been relaxed. Two major pieces of legislation, the Depository Institutions Deregulation and Monetary Control Act of 1980, and the Garn-St. Germain Depository Institutions Act of 1982, have enabled thrifts to offer commercial loans and other services that traditionally fell within the domain of commercial banks.⁷ Savings banks (SBs) were authorized to make commercial loans in 1980, while savings and loans (S&Ls) followed in a more limited way two years later. Through a series of steps, S&Ls and SBs reached a par with each other; on January 1, 1984 both types of institutions could invest up to 10 percent of their assets in commercial and industrial (C&I) loans. Moreover, these laws significantly expanded the powers of SBs and S&Ls to make consumer loans and commercial real estate loans, and to purchase commercial paper and offer transaction accounts.

HOW THRIFTS FIT INTO MERGER ANALYSIS

The Supreme Court's rulings on antitrust appear to require that thrifts offer a broad cluster of services and significantly participate in those services in order to be included in merger analyses. But beyond that, while some specific issues have been addressed by the district courts, there is basically little guidance on when thrifts offer enough bank-like services to be included as competitors in the line of commerce definition. As a result, now that thrifts are more like banks in their authorized loan and deposit powers, and in the services they offer, it is often difficult to know how to fit thrifts within the framework of the courts' rulings on antitrust.

In the face of these uncertainties, it is the regulatory authorities' responsibility to assess thrift participation in commercial services and to establish guidelines for evaluating how important thrifts are as competitors. The regulatory agencies involved are the Comptroller, the FDIC, and the Fed, as required by the 1966 revisions to the Bank

Merger Act. Besides considering various financial and managerial factors, the agencies are directed to consider the effect of the merger on competition, including any tendency toward monopoly. Only after evaluating these factors, and finding any anticompetitive effects to be outweighed by the convenience and needs of the community, can a regulatory agency approve the transaction.

A Structural Approach. When the Fed considers a merger proposal, its approach has been to fit thrifts into the standard framework for analyzing the competitive effects of bank mergers. That framework relies primarily upon a structural test to evaluate competition. The Supreme Court endorsed a structural approach in the 1963 PNB case, where it stated:

... a merger which produces a firm controlling an *undue percentage share of the relevant market*, and results in a *significant increase in the concentration of firms in that market*, is so inherently likely to lessen competition substantially that it must be enjoined in the absence of evidence clearly showing that the merger is not likely to have such anti-competitive effects (374 US at 363). [Italics added by the author.]

A significant increase in the concentration in a market usually has been measured by the combined market shares of the larger firms in that market. For example, if the merger of two banks would increase the combined market shares of deposits of the three or four largest banks from 50 percent to 65 percent of total deposits, then the merger would likely be examined closely because of the presumed anticompetitive effects of such an increase in concentration. The larger the combined market shares of the three or four largest banks, the more highly concentrated the market is.⁸ Many studies have found a relationship between the market structure—or number of firms

⁷For more information on expanded asset and liability powers authorized for thrifts under these Acts, see "Recent Developments in Federal and New England Banking Laws," by Joseph Gagnon and Steve Yokas, *New England Economic Review*, Federal Reserve Bank of Boston, (Jan/Feb 1983). Although both these Acts pertain to federally-chartered thrifts, they also affect state-chartered SBs and S&Ls in Pennsylvania, which have parity with federally-chartered institutions.

⁸The Justice Department in June 1982, issued new merger guidelines for a wide range of industries, which rely upon an alternative measure of concentration in the local banking market—the Herfindahl-Hirschman index (HHI). This index is calculated by squaring the market share of each institution competing in the market and summing over these institutions. Unlike the concentration measures of the top three or four firms, the HHI includes all institutions in the market and weights those with large market shares more heavily.

and concentration in a market—and the competitive performance of the firms in the market.⁹ This structural approach is also evident in the Justice Department guidelines for mergers. Under these guidelines, mergers between banks with large market shares, particularly in highly concentrated markets, may be anticompetitive. The Federal Reserve's competitive analysis generally is consistent with Justice's approach, though the guidelines have not been formally adopted by the Fed.

When thrifts are present in the relevant market, the Federal Reserve fits them into the competitive analysis by judgmentally *shading*, or discounting, the market shares of commercial banks within the relevant banking market. This procedure results in thrifts being included somewhere between 0 and 100 percent. Here's how shading works. Once the appropriate banking market is chosen, the share of deposits held by each commercial bank in that market is calculated. Commercial banks are considered the only competitors in the market and thrifts aren't included at all. Next, a second calculation is made of deposit shares including all thrift institutions as full competitors within the relevant market. That is, the deposits held by all the commercial banks *and* all the thrifts are summed together to make the total market pie, which lowers the measured market shares of the commercial banks in the market.¹⁰ Between these two extremes, judgment is needed to determine to what extent thrifts should be included as active participants in the market.

In the past, the judgmental part of the shading procedure generally has relied upon supplementary data on the nature of thrift activity in the market, and in general these data have been restricted to commercial loans and transaction accounts such as NOW (Negotiable Orders of Withdrawal) ac-

counts. If thrifts offer these services, they are likely to receive more weight in the analysis. That is, a greater percentage of thrift deposits would be included in the shading process, increasing the chances of regulatory approval of the merger.

When analyzing the competitive effects of thrifts in bank merger cases, the Federal Reserve Board asks several questions to help build a profile of thrift activity in a particular market. For example, what are the market shares held by thrifts in deposits and in commercial loans? How many institutions are making commercial loans in the market? What kinds of resource commitments to these activities do their balance sheets suggest? How big are the thrifts, and does their size relate to their commercial lending activity? When answering these questions, it is useful to analyze the data statewide, as well as at the market and individual firm levels.

THRIFT C&I LOAN DATA FOR PENNSYLVANIA

The combination of merger activity and thrift activity in Pennsylvania makes it an interesting case-study for assessing thrifts' role in the competitive effects of mergers. Pennsylvania has seen a surge in merger proposals, due in part to recent changes in the state's banking law. In 1982 the state law was amended to increase the number of subsidiaries a bank holding company could control from one to four. With this change, a bank holding company could merge two or more of its subsidiaries to "make room" for acquiring additional subsidiaries without exceeding the legal limit. In fact, many bankers have taken advantage of the relaxed law to merge, and others have plans to do so. Moreover, Pennsylvania has over 200 S&Ls and SBs in the state, dating back to the first S&L and the first SB in the country. Several different measures of thrift participation are presented here for Pennsylvania and each provides a slightly different view of thrifts' competition with banks.

What Shares do Thrifts Hold in Deposits and in Commercial Loans? Traditionally, deposit market shares have been an important measure of thrift competition with banks. Thrifts have always offered time and savings deposits, and Pennsylvania thrifts have been authorized to offer transaction accounts since 1980. By the time and savings deposit measure, thrifts already have an active presence in Pennsylvania, with SBs and S&Ls together holding

⁹For a review of this literature, see Stephen Rhoades "Structure-Performance Studies in Banking: A Summary and Evaluation," Staff Studies No. 92, Board of Governors of the Federal Reserve System, 1977. See also his more recent paper, "Structure-Performance Studies in Banking: An Updated Summary and Evaluation," Staff Studies No. 119, Board of Governors of the Federal Reserve System, August 1982.

¹⁰However, the measure of overall market concentration could actually increase by including thrifts, if the market contains one or two thrifts that are large relative to the commercial banks.

about 35 percent of statewide deposits (see Table 1).

Thrifts are not nearly so active in making commercial loans as in taking deposits, but they are making some headway: thrifts make almost 7 percent of all C&I loans made by commercial banks and thrifts in Pennsylvania, which amounts to more than \$1.00 out of every \$20.00 that is lent (see Table 2). While still small, these figures signify important gains since 1980, especially for SBs.¹¹ From 1980 to 1983, in fact, Pennsylvania SBs increased their share of statewide C&I loans from .5 percent to 6.6 percent, primarily because of one

¹¹The national picture differs somewhat from Pennsylvania's. In 1983 thrifts nationally had about 1.5 percent of total C&I loans. Of that amount, S&Ls have a 0.4 percent share, greater than what they hold in Pennsylvania. But SBs nationally, with a share of only 1 percent, are less active than they are in Pennsylvania. From 1980 to 1983, the total amount of C&I loans in the country has grown by about 50 percent, somewhat more than in Pennsylvania.

large institution in the Philadelphia area. S&Ls, however, experienced only slight growth in market share, reaching 0.2 percent during 1983. The 33 percent statewide growth in total C&I loans probably aided the thrifts in obtaining what share they did. However, commercial banks still do the lion's share of commercial loan business in Pennsylvania, making over 93 percent of the state's C&I loans.

Are More Thrifts Making Commercial Loans? If thrifts in a market are more likely to make commercial loans, they are judged to be more competitive with banks in their lending. And indeed, the data in Table 3 show that there are more thrifts making commercial loans today than there were in 1980. In the case of SBs, which are few in Pennsylvania, twice as many institutions participated in 1983 as in 1980. For S&Ls, mergers helped to boost the participation rate from 7 percent to 15 percent during the same period by reducing the total number of S&Ls statewide. Nearly all of the commercial banks in Pennsylvania make some form of commercial loan.

How Important are Commercial Loans on the Thrifts' Balance Sheets? Recently, balance sheet measures of thrifts' lending activity have received greater emphasis because they provide a useful supplement to deposit market shares in assessing competition for C&I loans. Balance sheet measures, such as the ratio of the volume of C&I loans to total loans, are particularly useful when thrifts are much fewer in number than commercial banks. In this case, the small loan market share of the thrifts compared to commercial banks may obscure the significant participation of a few institutions which could be quite active in bidding for commercial loans. The ratio of C&I to total loans also can be used to compare the commitment of the average SB to that of an average S&L or commercial bank. And within types of institutions, such a measure can pick out those thrifts whose portfolios differ substantially from the norm.

As expected, the portion of total loans devoted to commercial loans at thrifts still is relatively low (Table 4). On average, commercial banks hold 36 percent of their loans in the form of C&I loans, savings banks hold 15 percent, and savings and loans hold less than 1 percent. In particular, the savings bank figure reveals stronger lending activity than is indicated by their loan market share. Since the total volume of C&I loans in the state has

TABLE 1
DEPOSIT MARKET SHARES
IN PENNSYLVANIA^a
(Millions \$)

	1980	%	1983	%
Commercial Banks	\$48,407	60.1	\$74,484	64.7
Savings Banks	12,499	15.6	16,913	14.7
Savings & Loans	19,681	24.4	23,711	20.6
TOTAL	\$80,587		\$115,108	

^aData for national banks and state member banks are from the Report of Condition filed with the Federal Reserve, while data for state nonmember banks and savings banks are from the Report of Condition filed with the FDIC. Savings and loan data are from the Statement of Condition filed with the Federal Home Loan Bank Board. June filings were used from 1980 through 1983. These data are the basis for all subsequent tables.

TABLE 2
C&I LOAN MARKET SHARES IN PENNSYLVANIA
(Millions \$)

	1980	%	1981	%	1982	%	1983	%
Commercial Banks	\$14,049	99.4	\$14,886	94.8	\$17,133	93.0	\$17,590	93.2
Savings Banks ^a	75 (73.9)	0.5 (0.5)	810 (71.6)	5.2 (0.5)	1,276 (76.5)	6.9 (0.4)	1,236 (114.8)	6.6 (0.6)
Savings & Loans ^b	4	0.03	5.8	0.04	4.8	0.03	39.8	0.2
TOTAL	\$14,128		\$15,702		\$18,414		\$18,866	

^aData in parentheses exclude PSFS from the savings bank numbers.

^bWhile a commercial and industrial loan category was available on the call reports, commercial loans for S&Ls were defined strictly to include unsecured construction loans, wholesale mobile home loans, and other non-consumer loans. Commercial real estate was excluded from the definition.

TABLE 3
C&I LOANS: PARTICIPATION RATIO FOR
PENNSYLVANIA INSTITUTIONS
(Participants/Total)

	1980	1981	1982	1983
Commercial Banks	359/367	346/355	337/344	328/335
Savings Banks	3/9	3/9	6/8	6/8
Savings & Loans	18/258	25/247	26/225	29/194
TOTAL	380/634	374/611	369/577	363/537

NOTE: March 1984 data show 100 percent participation by SBs: of the two that were not making C&I loans in 1983, one has now begun to do so, and the other has been acquired by a commercial bank holding company.

TABLE 4
BALANCE SHEET MEASURE:
COMMERCIAL LOANS AS A PERCENT OF TOTAL LOANS

	1980	1981	1982	1983
Commercial Banks	32.4%	33.0%	36.0%	36.0%
Savings Banks ^a	1.0 (1.9)	13.6 (1.7)	15.0 (2.7)	14.9 (4.1)
Savings & Loans	.02	.03	.02	0.2

^aData in parentheses exclude PSFS from the savings bank numbers.

increased relative to that of total loans since 1980, it is perhaps not surprising that the ratio of commercial loan volume to total assets has grown for all three types of institutions.¹² Savings banks substantially altered their portfolios to expand into commercial loans, however, while S&Ls, on average, added a limited amount of commercial loans to their balance sheet. These averages, of course, hide considerable variability from one thrift to another. The ratios for savings banks range from 20 percent down to 1.5 percent while those for S&Ls range from 10 percent to negligible amounts.

Does Size Matter? In recent merger cases, the Federal Reserve Board has cited the size of thrift institutions, along with other factors, as a basis for assessing the competitive influence exerted by thrifts.¹³ If larger thrifts are more likely to engage in commercial lending, for example, then size can be used to predict whether thrifts are likely to embark upon a commercial loan program in the future. This assumption that larger thrifts have become, or have the potential to become, significant bank competitors probably stems from the belief that larger thrifts are more likely to be in a better position to exercise their newly authorized powers. Size may be important because the initial cost of setting up a commercial loan department or of hiring a full time commercial loan officer may exceed the expected future earnings of a small thrift. And, because small thrifts have fewer deposits, they have a lower capacity for making loans of any kind. Thus if local thrifts fit this pattern of behavior, large thrifts would tend to count as stronger competitors with banks than would smaller thrifts.

What is the relationship between size and commercial lending for thrifts in Pennsylvania? The evidence suggests that larger thrifts make more commercial loans, but it is not conclusive for either SBs or S&Ls. Since there are so few SBs, it is

not clear that any strong conclusion can be drawn. But it appears that larger savings banks are more likely to enter the commercial loan business and to make a greater volume of loans. The largest SB in the state, Philadelphia Savings Fund Society (PSFS) is by far the biggest thrift player in the commercial loan market.¹⁴ With over \$1 billion in commercial loans, PSFS has ten times the amount of the next largest SB participant and nearly forty times the loans of the largest S&L participant. Generally, savings banks are the largest thrifts in the state; even the smallest SB made nearly half a million dollars in C&I loans in 1983.

S&Ls show some tendency for greater size to be associated with greater commercial loan activity when they are sorted into size groups (Table 5), but the relationship is not as strong as the groupings suggest.¹⁵ On the whole, Pennsylvania's 200 S&Ls are small institutions—only three have more than \$1 billion in deposits and only six S&Ls are as big as or bigger than the *smallest* SB, and their median deposit size is only \$55 million. Larger institutions appear to make a greater volume of commercial loans and to have a higher participation rate in making C&I loans. S&Ls with less than \$25 million in deposits made no C&I loans at all in 1983.

Why Haven't Thrifts Expanded More? The most important reason thrifts haven't used their new lending powers more probably has been the weakened financial condition of thrifts stemming from the mismatch of their assets and liabilities in a period of high interest rates. With the elimination of interest rate ceilings on deposits, thrifts were compelled to pay higher rates on MMDAs, NOW accounts, and savings certificates in order to compete with banks, money market mutual funds and other alternatives for their deposit funds. Even with large amounts of funds in passbook accounts, their costs of funds went up dramatically. At the same time, thrifts still were holding a large

¹²The ratio of C&I loans to total loans for the state increased from 19.8 percent in 1980 to 23.6 percent in 1983.

¹³In the Sun Banks-Flagship merger in Florida, the Federal Reserve Board concluded that "Based upon the number, size, and market shares of (thrift) institutions in the ... market, ... thrift institutions exert a significant competitive influence that substantially mitigates the anticompetitive effects of this proposal." Cited in the *Federal Reserve Bulletin*, December 1983, p. 936.

¹⁴In 1983, PSFS alone held almost 6 percent of the C&I loans in Pennsylvania. Though PSFS dwarfs the contributions of the other savings banks in the statewide figures, its volume has declined by about \$150 million since 1982, while C&I loans of other SBs were rising.

¹⁵Correlation coefficients were calculated for 1983 deposits and C&I loans for each type of institution. For commercial banks, the correlation coefficient is .94; for SBs, it is .98 (.46 excluding PSFS); for S&Ls, it is only .06.

TABLE 5
SIZE AND C&I LOAN ACTIVITY FOR S&Ls IN PENNSYLVANIA, 1983

Deposits (Millions \$)		C&I Loans (Thousands \$)	S&Ls Making C&I Loans
Range	Average for Group	Total for Group	Participants/Group Total
\$150.2 - 1,867	\$401.7	\$32,761	13/40
74.5 - 143.8	101.7	4,760	7/40
40.0 - 74.4	54.9	2,026	7/40
15.9 - 37.7	18.6	263	2/40
3.1 - 15.8	9.7	0	0/34

volume of long-term fixed-rate mortgages bearing low interest rates, which meant that their assets, on average, were yielding considerably less than what they were paying on deposits.

Another reason why thrifts have been slow to move into the commercial loan business is the high start-up costs involved. Thrifts did not have commercial loan experience, and they have had to build up their expertise slowly in-house or else hire experienced loan officers from commercial banks. Many smaller and middle-sized institutions likely have found it too costly to hire a full time commercial lending officer or establish a department; their loan volume isn't large enough to justify such an expenditure.¹⁶ Of course, significant incentives remain for thrifts to continue their traditional emphasis on residential mortgages.

**BROADENING THE SCOPE
 OF COMPETITIVE ANALYSIS**

Does the modest profile of thrift commercial loan activity presented for Pennsylvania mean that

it is unimportant for analyses of bank mergers? Certainly not. Though thrifts are just beginning to act as competitors in this important commercial area, they have an impact on the analysis in several ways.

First, mergers are approved mostly upon the basis of *local* banking conditions. Although statewide numbers indicate a modest level of commercial lending activity across Pennsylvania, they are likely to mask what is going on in particular areas. Thrifts have stronger lending activity in metropolitan than in nonmetropolitan markets in Pennsylvania, and many mergers occur in the more populated markets. For example, despite the fact that thrifts make less than 2 percent of the total C&I loans in the Pittsburgh market, C&I loans at savings banks in Pittsburgh are more than 10 percent of their total loans, indicating a fairly significant balance sheet commitment to this lending activity.

Second, *individual* thrift institutions may be quite important in particular markets. When looking at the more specific measures of thrift competition, one striking finding is the tremendous variability in thrift commercial loan behavior. Thrifts which make commercial loans differ markedly in their market shares, the amount of resources on the balance sheet devoted to commercial loans, and their size. Because thrifts in a particular market might behave quite differently, analysis of the competitive effects requires a careful look at how individual institutions use their expanded powers before forming an overall judgment of thrift competition in that market.

¹⁶Other reasons for the modest commercial loan participation include high default risk on some types of commercial ventures over the past few years, variable rate mortgages that reduced interest rate risk and therefore the need to diversify into commercial lending, tax incentives that continue to encourage mortgage lending, and the short time that expanded powers have been authorized. For a good discussion of the factors influencing thrift commercial lending, see "How Quickly Can Thrifts Move Into Commercial Lending?" by Constance Dunham and Margaret Guerin-Calvert, *New England Economic Review*, (Federal Reserve Bank of Boston, Nov/Dec 1983).

New Ways of Including Thrifts. The courts have determined that, for antitrust purposes, commercial loans are one of the most significant services in which banks and thrifts compete. One approach to assessing thrift competition would be to add use of this expanded power to past strengths that thrifts have traditionally shown in making residential real estate loans and in issuing time and savings deposits. When credit is given to thrifts for building on the areas where they have been strong competitors with banks in the past, thrifts look like more serious competitors *today* even though they have made only modest inroads in C&I lending. Indeed, there is some recent evidence that thrifts substantially influenced commercial bank behavior and performance in Pennsylvania back in the early 1970s.¹⁷

Recognizing that banks and thrifts may compete over a broad range of services leads to a multi-service line approach. Recently, the Federal Reserve's staff proposed to the Board of Governors informal guidelines to bring balance sheet measures of the major service lines formally into the shading process. This approach could be applied to the commercial loan service line as an example, since this service alone can justify substantial shading of commercial bank shares. To analyze the balance sheet commitment of thrifts to commercial lending, the average ratio of commercial loans to total loans for SBs and S&Ls could be compared to each other and to the commercial banks. The commercial banks' ratio would serve as an indicator of the strength of the demand for commercial loans in that market. For commercial loans, other factors would include the number of thrifts actually making commercial loans, the size of the thrifts in the market, and whether the thrifts have established commercial loan departments, hired a commercial lending officer, or have plans to do so in the near future. After considering all such factors for the thrifts in the relevant market, a judgment would be made regarding the degree of competition that thrifts offer banks in the commercial loan service line. For example, if thrifts in the market are deemed to be moderately strong competitors in

commercial lending, they could receive, say, a weight of 20 percent—that is, 20 percent of the deposits of each thrift in the market would be added onto the total commercial bank deposits, and the market shares would be recalculated using this larger total deposit figure. Thus, the service line—in this case commercial loans—would collapse at the end of the shading process back into the concept of the market share of deposits.

This approach need not be limited to commercial loans. Each major service line with its own characteristics could be analyzed in the same kind of way; such an approach could help to ensure consistency across markets. Other service lines might include consumer loans, commercial and residential real estate loans, transaction accounts, and time and savings accounts.¹⁸ All together, a thrift weight of 100 percent would be possible if thrifts were judged to be strong competitors with banks in every major service line in the market. More likely, however, only a proportion of thrift deposits would be added to the total deposits of banks in the market to calculate the measures of market concentration. Even 50 percent inclusion of thrifts' deposits could significantly reduce measures of concentration in the market, increasing the likelihood of regulatory approval of mergers. It should be noted, however, that some writers have urged caution in including thrift institutions; they point out that mergers already resulting in much larger market shares for banks are permitted, compared to when commercial banks were considered the sole competitors.¹⁹

¹⁸A multi-service line approach raises questions about how much to depart from the traditional line of commerce doctrine. If regulators judge thrifts to be competitors in some but not all of the service lines, thrift deposits may be included to a substantial extent, though thrifts may not be competing with banks in some important areas. For example, how much can active thrift competition in consumer loans offset moderate thrift competition in commercial loans? Closer adherence to a unique line of commerce would tend to require significant participation in commercial loans, whether or not the thrift competes in consumer services. These issues probably will not be resolved until the Supreme Court again rules on the line of commerce definition.

¹⁹See "Antitrust Laws, Justice Department Guidelines, and the Limits of Concentration in Local Banking Markets," by Jim Burke, Staff Studies No. 138, Board of Governors of the Federal Reserve System June, 1984, p. 14.

¹⁷See Timothy Hannan, "Competition Between Commercial Banks and Thrift Institutions: An Empirical Examination," *Journal of Bank Research*, Spring 1984, pp. 8-14.

OUTLOOK FOR THRIFTS IN MERGER ANALYSIS

Thrifts are moving close to the point where they may be considered serious competitors in the commercial banking line of commerce. With today's complex financial institutions, it's difficult to evaluate *when* thrifts offer sufficient volume and breadth of major banking type services to be considered significant competitors. Both SBs and S&Ls now are authorized to offer a wide range of personal and commercial banking services. Currently, thrifts are participating in commercial loans in Pennsylvania in a limited way, but given the financial difficulties and earnings losses in the industry, this current level of activity is not surprising. Still, as a group, thrifts are moving to

exercise their commercial loan powers more fully and to compete in more of the commercial banks' major service lines, and will probably continue to do so. And some thrifts are now making greater inroads into the commercial loan markets to the point of affecting competition in local banking markets. As a result, thrift activity now receives more weight in the competitive analysis of bank mergers, significantly increasing the chances of regulatory approval of bank merger applications. For policymakers, legislators, and the judiciary, these developments likely will require continued scrutiny and adjustment in assessing the antitrust implications for bank mergers of thrifts' new lending powers.

Working Papers

The Philadelphia Fed's Research Department occasionally publishes working papers based on the current research of staff economists. These papers, dealing with virtually all areas within economics and finance, are intended for the professional researcher. The nine papers added to the Working Papers Series in 1983 are listed below.

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1983

- No. 83-1 Robert H. DeFina, "Union-Nonunion Wage Differentials and the Functional Distribution of Income: Some Simulation Results from a General Equilibrium Model."
- No. 83-2 Nicholas Carlozzi, "The Structure, Parameterization and Solution of a Multicountry Simulation Model."
- No. 83-3 Nicholas Carlozzi and John B. Taylor, "International Capital Mobility and the Coordination of Monetary Rules." (Reissued in *Exchange Rate Management Under Uncertainty*, ed. J. Bhandari, MIT Press, 1984.)
- No. 83-4 Brian R. Horrigan, "Pitfalls in Analyzing Deficits and Inflation."
- No. 83-5 Herb Taylor, "The Role of the Discount Window in Monetary Policy Under Alternative Operating Procedures and Reserve Requirement Systems."
- No. 83-6 Brian C. Gendreau, "Carrying Costs and Treasury Bill Futures."
- No. 83-7 Edwin S. Mills, "Metropolitan Central City Population and Employment Growth During the 1970's."
- No. 83-8 Gerald A. Carlino, "Declining City Productivity and the Growth of Rural Regions: A Test of Alternative Explanations." (Revision forthcoming in the *Journal of Urban Economics*, 1984.)
- No. 83-9 Simon Benninga and Aris Protopapadakis, "General Equilibrium Properties of the Term Structure of Interest Rates."

83-1

**UNION-NONUNION WAGE DIFFERENTIALS AND
THE FUNCTIONAL DISTRIBUTION OF INCOME:
SOME SIMULATION RESULTS FROM A GENERAL
EQUILIBRIUM MODEL**

Robert H. DeFina

During the past two decades, a number of studies have established the ability of unions to obtain wages for their

members that exceed the payment to similar, but nonunionized workers. This article investigates empirically the impact that this wage differential has on the real incomes of union labor, nonunion labor, and capital. The analysis is accomplished by solving explicitly a numerically specified general equilibrium system with and without the union wage premium. Comparison of real factor incomes in each equilibrium yields the desired information. The findings indicate that union labor gains as a result of the differential, while nonunion labor and capital lose. This outcome is realized both in terms of real income levels and in a redistributive sense.

Selected Abstracts 1983

83-3

INTERNATIONAL CAPITAL MOBILITY AND THE COORDINATION OF MONETARY RULES

Nicholas Carlozzi

and

John B. Taylor

The paper develops a two-country model with flexible exchange rates and perfect capital mobility for evaluating alternative macroeconomic policy rules. Macroeconomic performance is measured in terms of *fluctuations* in inflation and output. Expectations are rational, and prices are sticky; wage setting is staggered over time. The countries are linked by aggregate spending effects, relative price effects, and mark-up pricing arrangements. The model is solved and analyzed through deterministic and stochastic simulation techniques. The results suggest that international capital mobility is not necessarily an impediment to efficient domestic macroeconomic performance. Changes in the *expected* appreciation or a depreciation of the exchange rate along with differentials between *real* interest rates in the two countries can permit macroeconomic performance in one country to be relatively independent of the policy rule chosen by the other country. The results depend on the particular parameter values used in the model and suggest the need for further econometric work to determine the size of these parameters.

83-4

PITFALLS IN ANALYZING INFLATION AND UNEMPLOYMENT

Brian R. Horrigan

When can we know whether deficits cause inflation or inflation causes deficits? The correlation we observe between deficits and inflation does not permit an inference about causality. In steady state, higher inflation is always associated with higher deficits, regardless of what caused the inflation. The causal relation between deficits and inflation can only be inferred from a study of disequilibrium situations. In disequilibrium, the inflation-adjusted deficit is a better measure of the stance of fiscal policy than the conventional deficit.

83-5

THE ROLE OF THE DISCOUNT WINDOW IN MONETARY POLICY UNDER ALTERNATIVE OPERATING PROCEDURES AND RESERVE REQUIREMENT SYSTEMS

Herb Taylor

The paper uses a simple model of the reserves market to demonstrate the implications of discount window administration

procedures for short-run money control. It is shown that when the Fed uses a funds rate operating procedure to control the money stock, discount window procedures do not affect the volatility of the money stock. When the Fed uses a reserves operating procedure combined with lagged reserve requirements, a relatively liberal discount window policy is shown to improve money control. With contemporaneous reserve requirements, the case for a more restrictive discount window policy is stronger, though a penalty discount rate does not necessarily maximize short-run money control.

83-6

CARRYING COSTS AND TREASURY BILL FUTURES

Brian C. Gendreau

Researchers have consistently found that yields on Treasury bill futures differ significantly from corresponding forward rates implicit in the term structure of interest rates. This paper focuses on the borrowing costs faced by investors as the source of that difference. Rates of return attainable on forward bills created implicitly by financing Treasury bills with term repurchase agreements are calculated and found to be not significantly different from yields on Treasury bill futures contracts. These results suggest that risk premia in the repurchase market are reflected in Treasury bill futures yields, and can explain why those yields differ from forward rates.

83-7

METROPOLITAN CENTRAL CITY POPULATION AND EMPLOYMENT GROWTH DURING THE 1970s

by Edwin S. Mills

This paper studies the determinants of Metropolitan Central City Population and Employment Growth from 1970 to 1980 using census data for metropolitan areas with at least 250,000 population. Central city and suburban population and employment growth are analyzed in a four-equation model. Population and employment growth reinforce each other strongly in central cities. Suburban population growth stimulates central city employment growth, but suburban employment growth is at the expense of central city employment growth. Central city population and employment growth are affected strongly by variables over which communities have control. Many eastern and northern central cities could have replaced decline with substantial growth by better control of crime and taxes and by improved educational systems.



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