

Federal Reserve Bank of Minneapolis
Research Department Working Paper

AFTER PENN SQUARE:
THE INSURANCE DILEMMA

Evelyn F. Carroll and Arthur J. Rolnick

Working Paper 222

Revised June 1983

This paper was prepared for the Conference on Bank Structure and Competition held at the Federal Reserve Bank of Chicago, Illinois, on May 2-3 1983.

The views expressed herein are those of the authors and not necessarily those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System. The material contained is of a preliminary nature, is circulated to stimulate discussion, and is not to be quoted without permission of the authors.

I. Introduction

Three financial events that occurred during the summer of 1982 have brought an important bank regulatory dilemma sharply into focus. The three events were the collapse of Drysdale Government Securities, Inc., the failure of the Penn Square National Bank and the Mexican financial difficulties. The regulatory dilemma is the following: deposit insurance has contributed to an increase in risk in the financial markets, but restructuring insurance to encourage more prudent bank behavior entails its own risk which could aggravate the very instability which insurance is designed to avert.

The three events listed above illustrate how the risks in banking have increased substantially during the past decade. Each of the three events involved the apparent failure on the part of a large number of market participants to properly evaluate risk; each event centered on a single market participant but had widespread effects of crisis proportions; and each culminated in direct government intervention.

While the risks in banking have increased, the nature of banking has changed so dramatically that the federal regulatory agencies, which assume the bulk of this risk, have been losing their ability to monitor and influence bank behavior. The increase in interdependence among financial firms and in sophistication in financial instruments will undoubtedly continue and allow bankers to stay at least one step ahead of the regulators.

In this paper, we examine the financial environment in the context of Drysdale, Penn Square and Mexico. We assess the

current and future roles of regulation and insurance of financial risk and discuss the need for change. Finally, we explore several options for restructuring deposit insurance and bank regulation. While one option emerges as the most promising--government re-insurance of a private insurance system--its transition problems are formidable.

II. Financial Failures: Isolated or Systemic?

The emergence of three significant financial breakdowns--the May failure of Drysdale Government Securities Inc., the July collapse of the Penn Square National Bank, and the August emergence of Mexico's financial problems--during a four-month period in 1982 provides a focal point to examine the stability of the U.S. financial system. Each of the events can plausibly be attributed to poor management or fraudulent behavior. A report prepared by the Federal Reserve Bank of New York suggests that, over a period of several months, Drysdale engaged in increasingly speculative securities transactions in a volume disproportionate to its resources [6]. In hindsight, Drysdale's activities during its final weeks of operation appeared to market participants to have been aimed at raising working capital. This suggests that the firm's market strategy led to losses that imperiled it well before its collapse. Penn Square collapse resulted from poor loan administration policies and inappropriate management. Mexico's difficulties can be viewed as one event in an ongoing history of financial instability that has been running in a six-year cycle.

While each of these three events can be viewed as a temporary and localized problem with minimal long-term implications, a broader examination reveals that each event had widespread impacts on financial markets and on the banking industry.

The Drysdale incident touched off a general reevaluation of the risk inherent in the government securities market and directly contributed to the demise of two other government securities dealers. The Drysdale default imperiled the smooth operation of a little understood but staggeringly large market. At the time of the incident, reporting dealers (those who report to the Federal Reserve on their operations) had outstanding some \$103 billion of government securities sold under repurchase agreements [6]. Swift Federal Reserve action was deemed necessary to keep the market operating.

The Penn Square failure also had widespread effects. The decision by the Comptroller of the Currency and the Federal Deposit Insurance Corporation (FDIC) to close the Penn Square Bank without the benefit of an assisted merger reportedly left 139 federally-insured credit unions and 14 federally-insured savings and loan associations holding uninsured deposits of \$127 million [2, pp. 49 and 67]. Many of these institutions apparently had large portions of their net worth devoted to Penn Square certificates of deposit purchased through brokers. Action by the FDIC to permit booking of those deposits at 80 percent of face value and an immediate announcement by the Federal Reserve that receivership certificates issued to the depository institutions could be used as collateral against discount window loans were

considered essential to prevent widespread problems from developing.

Mexico's financial problems also involved a large number of large and medium-sized banking organizations. The far-reaching impact of this undertaking is indicated by reports that some 55 U.S. banks were involved in meetings at the Federal Reserve Bank of New York during the negotiations with the Mexican government [16]. The increasing difficulty facing private Mexican borrowers in repaying dollar-denominated loans has even further ramifications, and the potential effects stretch far beyond the major money market banks.

A striking element in each of the three events is the apparent failure of market participants to assess or in any way limit the risk exposure implied by dealings with the principals in the crises. According to the New York Fed report, the now-defunct securities dealers raised working capital from "careless or unwitting customers" [6, p. 2], and "the market was vulnerable because some participants were not sensitive to or aware of the exposure to which they were subject" [6, p. 10]. Participants in "blind-brokering" arrangements apparently did not even bother to determine a priori where legal liability rested. Furthermore, standard securities repurchase agreements took no account of the value of interest accrued on the underlying securities, thus leaving lenders highly vulnerable to default by a borrower. As the number of market participants grew, practices that had developed when the market was small and closely knit became inappropriate, but were not changed. In the case of Penn Square, major

money market banks apparently purchased loans from the relatively unknown institution without applying their own credit analysis standards to the loans. On the deposit side, small depository institutions, lured by high promised returns, purchased imprudently high concentrations of brokered CDs, without evaluating the underlying risk. Similarly, larger banks took on large exposures to Mexican borrowers in spite of a widely recognized country risk factor.

There is substantial reason to believe that the three financial incidents described here are symptomatic of a generalized increase in the risk of bank failure and, more importantly, in the risk of financial market breakdown. The far-reaching effects of each incident indicate the interdependence among commercial banks. This has been accompanied during the past several years by a growing interdependence among different types of financial institutions. These two developments, combined with a gradual increase in the risk of failure for individual banks and the growing uncertainties in the economic environment, have reduced the stability of our financial system.

At the same time, traditional measures of bank safety are weakening. Between 1968 and 1982, the ratio of capital to total assets at all insured U.S. commercial banks fell from 7.26 percent to 5.87 percent, while the ratio of capital to risk assets fell from 10.63 percent to 8.62 percent. (See Chart 1.) Meanwhile, the ratio of loans to deposits at these banks rose from 60.94 percent to 70.02 percent. (See Chart 2.) The number of problem banks has been relatively high since the mid-1970s and

jumped dramatically in 1982. The FDIC reported a total of 223 problem banks at year-end 1981. The total rose to 315 by year-end 1982. (See Chart 3.)

Examining risk premiums on bank debt is a way to gauge the market's perception of a long-term trend toward more risk in the industry. Investors demand a risk premium, an amount above the safe government yield, on virtually all private debt. Since agents always have the option of buying the perfectly safe security, banks and other private firms must pay a premium above the safe yield to attract investors. This risk premium will be higher the riskier the firm is perceived by the public. Assuming market participants can evaluate the firm's ability to pay off its debt in various states of the world, the risk premium will be related to the actual riskiness of the firm. Hence, if banks have become riskier over recent years, as our other indicators suggest, we would expect to find an increase in the risk premium paid by banks. This increase would also give us a better idea of how significant the change has been.

The risk premiums on short- and long-term bank debt plotted in Charts 4 and 5 confirm that banks have become riskier and by a significant amount. According to this measure, banks' vulnerability sharply increased in late 1979 and has remained high. In Chart 4 we have plotted one measure of the risk premium on short-term debt: the difference between the rates on 90-day CDs sold in the secondary market and a selected risk-free investment, 90-day Treasury bills, on a monthly basis beginning in 1964, when the secondary market was started. The yield spread, or risk

premium, was quite volatile during the Franklin National Bank failure (roughly from May 1974, when problems with Franklin National were made public, to the bank's closing in October 1974). The premium reached almost 400 basis points during this period, but within a year after Franklin National closed, the premium dropped to well under 50 basis points. Even including the Franklin National months, between 1964 and 1980 the risk premium averaged around 80 basis points, being as low as 20 in the fall of 1976. Starting in October 1979, however, there was a significant change; the average premium increased dramatically. The average rose to 161 basis points between October 1979 and April 1983, the premium going as high as 280 points in July 1981. During the last half of 1982, the premium fell sharply to less than 50 basis points by year end. It is impossible to predict whether this decline is permanent. It would appear, however, that congressional and regulatory reactions to the events of 1982 bolstered public confidence in the banking industry, at least temporarily.

Chart 5 illustrates a similar pattern for the risk premium on long-term bank debt. In this chart we have plotted the difference between the yields on an index of long-term, high-grade bank holding company bonds and 20-year Treasury bonds, on a monthly basis beginning with November 1977, when data on bank holding company bond yields first became available. Like the short-term premium, the long-term premium started increasing in late 1979. It averaged 60 basis points before October 1979 and 116 basis points after that.^{1/} As with the short-term premium, the long-term premium fell sharply during the last half of 1982.

The market's reaction to banks' debt tells us that bank creditors have perceived these firms as being riskier now than they were a decade ago. Assuming market participants are reasonably good at evaluating a bank's position, these data, together with our other indicators, point strongly to the conclusion that banks have become substantially more vulnerable to losses and failure than they were historically. The direct data on bank failures also support this conclusion. During 1982, the FDIC closed or merged 42 banks with total deposits of \$9.9 billion. These are the highest failure rates since 1940. (See Chart 6.)

III. The Roles of Regulation and Insurance in Banking

The Reaction to Financial Market Problems: More Regulatory Diligence

Whether the events of 1982 indicate a localized or a systemic problem in banking, the reaction has been to increase regulatory diligence. The Drysdale default led immediately to questions about the failure of regulations to govern activities of government securities brokers. The Federal Reserve Bank of New York, fielding questions from various sources, including the Congress, appointed a Senior Vice President with special responsibility to oversee securities brokerage activity and launched an investigation into the ability of the market to self-regulate. The Federal Reserve moved in August to require all reporting dealers to value accrued interest on securities underlying repurchase agreements.

The Penn Square failure had even more dramatic effects. The initial market reaction was one of shock that a mid-sized banking organization could be permitted to fail without the assistance of an FDIC-arranged merger. Market participants asked how the regulatory agencies could have permitted a bank like Penn Square to involve so many banks in questionable loans. The examination procedures of the Comptroller of the Currency were questioned, a special investigation was launched by the Department of the Treasury, and hearings were held in both the United States Senate [2] and the House of Representatives [15].

Mexico's difficulties resulted in a massive restructuring with intensive involvement of the International Monetary Fund. In the context of considering a resulting IMF funding request, Congress has demanded change in the regulatory approach to international loans.

Moral Hazard and the Need to Supervise

Because the government provides the insurance for the banking industry, there is good reason for regulatory diligence. Anytime people or firms are insured (by a private or public agency), there is an incentive for the insured to be less careful and more willing to take on risk than if they were not insured, since they do not have to suffer all the financial consequences. Insurance companies, of course, recognize this problem; when possible, they charge a premium that at least partially reflects the riskiness of the insured person or firm. Car insurance premiums, for example, reflect a driver's history of accidents, traffic tickets, and areas of travel. Still, for many activities, includ-

ing driving, it is very expensive to diligently monitor and assess the behavior of the individual person or firm being insured. Premiums, therefore, are generally based on the average historical experience of the insurable population, which has little effect on the incentive problem and leaves the insurer exposed to potentially large losses. This is what is known in the literature as the moral hazard problem.^{2/}

The standard way insurance companies deal with moral hazard is to create incentives that induce more favorable risk-taking behavior and which do not rely on monitoring. The most common device is coinsurance. Recently created dental insurance plans provide a good example. Many of these plans will pay 100 percent of the costs of maintenance, such as checkups and cleanings, but will only pay up to 60 percent of the costs of major dental work. By designing the coinsurance properly, the dental plan encourages better dental hygiene and thus minimizes the probability of large losses to the insurer without expensive monitoring costs. Another popular technique to influence the behavior of the insured and avoid monitoring costs is moral suasion. Auto insurance companies, for example, spend considerable resources promoting safety on the highways. These companies are some of the strongest supporters of increasing the drinking age and keeping the 55 miles per hour speed limit.

Perhaps even more than most other insured activities, banking is subject to moral hazard. The difficulty of monitoring the riskiness of bank decisions in order to price insurance is presumably why the premiums on FDIC insurance are only related to

the size of the bank. Like many other insurance companies, the FDIC uses various incentives to influence behavior toward risk without explicitly pricing such behavior. In particular, it relies on a combination of coinsurance and a very strong form of moral suasion--supervision and regulation.

The FDIC, with help from the Comptroller of the Currency, the Federal Reserve, and state banking departments, supervises and regulates all insured banks. These banks are subject to surprise, on-site examinations and are required to periodically report balance sheet and income statement information to permit the agencies to monitor their behavior. If a bank is deemed too risky or potentially vulnerable, appropriate recommendations are made to bank management and, if necessary, enforced under threat of removal of insurance.

This form of moral suasion has always been an important part of the FDIC insurance program. Because of an overriding concern to safeguard deposits, though, the FDIC has gradually reduced its reliance on coinsurance. The cutoff on insured deposit size has increased from \$5,000 in 1934 to \$10,000 in 1955, \$20,000 in 1969, \$40,000 in 1974, and \$100,000 in 1980. As a result, of course, the proportion of insured deposits has been steadily rising. Starting at 45 percent of all bank deposits in 1934, it rose to 73 percent by 1982, leaving, in effect, only 27 percent of all deposits uninsured. (See Chart 7.)

That 27 percent of deposits is uninsured, however, is misleading. At many banks, a substantial proportion of uninsured deposits are interbank deposits, and ultimately, most interbank

deposits are insured. When Penn Square failed with \$158 million of so-called uninsured deposits, \$127 million of these deposits were held by savings and loan associations and credit unions-- financial institutions whose deposits are to a large extent insured by government agencies [2, pp. 45, 49, and 67]. Consequently, the potential loss to individual depositors was far less than \$158 million.

The 27 percent estimate of uninsured deposits is misleading for another reason. It is well known that FDIC-type insurance is one of two types of insurance the government provides banks. The other is more difficult to define and measure, yet most would agree it is a very important part of government insurance. This insurance stems from the Federal Reserve's role as a lender of last resort. In order to avoid a financial panic, the Federal Reserve will open its discount window to distressed banks. This policy is often interpreted to mean that the Federal Reserve will not allow a major bank to fail. The following recent statement by Sanford Rose illustrates the public's perception:

Can anyone doubt that the government is committed to underwriting the top 10 banks? Indeed, it may even be committed to underwriting the top 25 or 50 [12].

And the Wall Street Journal, in a recent editorial on foreign loans held by large private banks, asserts that government backing of the banking industry is worldwide.

It can be no secret by now that these private bankers are not acting out of sheer stupidity. . . . Banks assume as they continue to pursue these risky loans that they

have an ace in the hole: Central banks . . . can ill afford to let them or their debtors go bust [17].

Moreover, there are good reasons for the U.S. public to expect their government to protect their funds. Since the FDIC was established in 1935, losses to uninsured depositors have been very small, and until recently, virtually all occurred at banks with deposits well under \$50 million. Thus, even the roughly 27 percent of uninsured deposits in commercial banks are not truly uninsured. While it is difficult to say to what extent they are not, the FDIC and the other regulatory agencies are clearly not relying very much on coinsurance to influence bank behavior.

Why More Regulatory Diligence Won't Work

The moral hazard problem is a potentially serious problem for any insurance company. It can expose the company to the possibility of ruinous losses. It creates an environment where the insured have a strong incentive to take on much riskier ventures than they would otherwise, and that produces the very instability the insurer would like to prevent. The government's decision not to base a bank's deposit insurance premium on risk and to use little coinsurance means that the government must rely quite heavily on supervision and regulation to lessen the moral hazard problem. Until recently, the regulators have done this quite successfully, giving us the most halcyon days in U.S. banking history. Nevertheless, these days appear to be over, as the regulators are seriously lagging behind the bankers.

Historically, banks have typically been one step ahead of bank regulators. In a process termed by Kane the "regulatory dialectic," the industry has been characterized by a continual attempt by regulators to plug loopholes uncovered by banks [7]. This process has been accelerated by incentives provided by rapid advances in communications technology.

Currently, there is an even more significant reason to doubt regulators' ability to reduce bank risk-taking through increased direct supervision. Banking has expanded beyond the scope of operations that the existing supervisory system was developed to evaluate. The entire bank examinations process has traditionally been an analysis of balance sheet activity. But the need to compete in a volatile interest rate environment has led banks to increase reliance on fee-based, off-balance sheet activity. In recent years, regulators have responded to this trend by developing special examination techniques to deal with these activities as they emerge. The Drysdale incident, however, indicates the potential scope of commercial bank activity that will remain unrecognized until problems develop.

The range of reactions of individual commercial banks to the current economic environment is so broad that it is doubtful that regulatory oversight in its traditional form will effectively limit the riskiness inherent in those reactions. The more likely result is that regulators will be left in the protector-of-last-resort role of attempting to smooth crises as they develop.

At the same time, continued attempts to expand regulatory oversight will have the perverse effect of reducing market discipline over the banking industry.

IV. Some Alternatives to More Regulatory Diligence

If more regulation and supervision is unlikely to succeed--if government has little chance of solving the moral hazard problem with increased supervision of bank behavior--then what are its alternatives? Two that are often discussed are increasing the degree of coinsurance and imposing risk-related insurance premiums. On close examination, though, both of these options have serious defects. A third alternative, private insurance, is generally not considered but should be.

Clearly, increasing the degree of coinsurance would lessen the moral hazard problem; however, it could turn out to be very costly. By lowering FDIC insurance coverage to, say, \$40,000 or reducing the market perception that the government underwrites large banks, banks would have less incentive to take on risk. Banks would have more uninsured depositors to worry about, depositors who would demand a higher return from riskier banks. So, for banking just as for other insurable activities, coinsurance helps to offset the moral hazard problem. However, relying more on coinsurance has one obvious disadvantage that makes it a very expensive way to influence bank behavior. It increases the likelihood of bank runs. The lower the FDIC deposit coverage, i.e., the greater the depositors' share of coinsurance, the greater the probability that a large number of depositors could lose faith in their banks and start a panic.

A less obvious disadvantage of relying on a greater coinsurance role for depositors, while only transitory, could also be very costly. Simply announcing that insurance coverage will be

lowered could cause a banking crisis instead of prevent one. It is not hard to imagine depositors getting very nervous if the government started to back off from its explicit or implicit insurance commitment. If the government reduced its commitment at a time when everyone realized that banks were holding very risky portfolios, a massive bank run by the newly uninsured (or less insured) depositors would be a strong possibility.

The second alternative to more regulation and supervision is the often proposed risk-related premium, or variable rate insurance.^{3/} This alternative suffers from the same problems that plague bank regulation and supervision. The idea of pricing insurance as a function of risk is based on the general efficiency of marginal cost pricing. A profit-maximizing firm will take on risky ventures to the point where the additional expected profit from one more unit of risk just equals its additional cost--the insurance premium. If the insurance premiums to all firms represent the true cost to society, then the market's overall risk exposure will be optimal. Setting variable rate premiums, however, assumes regulators can evaluate and monitor a bank's risk position ex ante. We have been arguing that regulators cannot do this today and are not likely to be able to in the future. Flat-rate insurance may well be the best they can do given the current and expected ability to monitor bank behavior. Moreover, even if regulators could accurately price the risk-related premium, this proposal also has a potentially fatal transitory problem. The optimal premium might force some banks into a negative cash flow position and ultimately into bankruptcy. Again, by changing

policy, the government could seriously aggravate the financial instability it is trying to prevent.

A third alternative to more regulation and supervision, usually not discussed, is a private insurance system. Exactly what form private insurance might take is difficult to say, but history may be a useful guide. Deposit insurance existed well before the FDIC.^{4/} It was usually run by states, although not backed by state taxes. Insurance associations levied premiums against member state banks, all of whom shared in the liability of the state fund. These state-sponsored funds are properly thought of as cooperative insurance associations; the state's role was mostly in organizing and determining whether membership was voluntary.

The systems that appeared to work best were those in which a form of coinsurance was imposed and monitoring was extensive. The New York Safety Fund, established in 1829, appeared to work this way and has generally been regarded as a success. A distinctive feature of the New York system was that each chartered bank was required to pay 3 percent of its capital to the fund. Whenever the fund was depleted by payments on account of insolvency, chartered banks were assessed until the fund held 3 percent of the aggregate capital of all remaining banks [9, p. 404]. A second distinctive feature was that safety fund banks were supervised by a team of three commissioners. These officials were required to examine banks once every four months, checking capital requirements and the general well-being of the banks. The governor appointed one commissioner, while the banks appointed the

other two. Banks, therefore, had at least an indirect role in regulating themselves.

How successful was the safety fund system? Knox reports that

In 1835 the number of banks under the safety-fund law was seventy-six, with a capital of \$26,231,460, that of other banks in the State being \$5,175,000. The total circulation of the safety-fund banks was \$14,464,023, against which they held in specie \$5,561,745, and specie funds in city banks \$4,944,877. The banks appear to have been very strong at this period. The bank fund had reached \$400,000, and no drafts on it were anticipated. The income from it was to be distributed among the contributing banks. [9, p. 407]

Knox also points out that during the two nationwide suspensions of specie payments, in May 1837 and the autumn of 1839, the New York banks only participated in the first [9, p. 408].

State-sponsored insurance funds between 1907 and 1929 did not do as well as New York's Safety Fund [18]. Several failed within a few years after they were established. Those that had some success were state funds that made all the insured banks responsible for the losses of any member bank and that closely supervised all members. Oklahoma's insurance fund was one of the more successful, even though it almost went broke shortly after it was established in 1907. It was saved by a complete revamping in 1909 that provided for fixed annual assessments until the fund averaged 5 percent of deposits as well as special assessments to maintain the fund. Capital and reserve requirements were also strengthened, as was supervision. By 1920 the system was restored

to solvency, although the increased assessments drove out the larger banks [18, p. 553].

Private insurance funds did not disappear after federal deposit insurance was established. Today, five states--Maryland, Massachusetts, North Carolina, Ohio, and Pennsylvania--have such funds. Altogether they insure more than 400 savings and loans associations and savings banks.^{5/}

These examples suggest what might evolve if the federal government were to leave the bank insurance business. Some form of cooperative insurance companies would likely develop wherein banks would share the financial liability of other banks in their region. The obvious advantage to such a system is that it would substantially reduce the moral hazard problem; banks surely make the most astute regulators of their own industry. Who could be more aware of innovations and ways of overcoming regulations than those being regulated? Moreover, if, as is likely, numerous associations developed across the country, then the monitoring problem would be decentralized and the probability of nationwide problems developing because of regulatory loopholes would be reduced.

The obvious disadvantage of a private insurance system is that there are no guarantees that private insurance companies could survive or, if they did, that they could provide enough insurance to prevent banking panics. If membership in private regional insurance companies were not compulsory, experience suggests that large banks would not join because of the relatively high assessments necessary to keep the insurance fund actuarially

sound. Large banks might form their own nationwide companies and insure themselves. In any event, even if private insurance were compulsory and even if private companies could overcome most of the moral hazard problem through self-monitoring, there would still be some probability that one or more of these insurance associations would fail and inflict large losses on bank depositors. Presumably this is one of the primary rationales for establishing a public insurance scheme instead of a private one.

Reinsuring the Banking Industry

There may be a way, though, to combine the positive aspects of both public and private insurance: have a public insuring agency reinsure private associations.^{6/} The obvious advantage of an FDIC (backed, of course, by the Treasury) is that it can ultimately back deposits. Only the federal government can manage the potentially large losses that could occur with a systemwide panic. The disadvantage of an FDIC is that it must supervise and regulate banks, which, we have argued, it cannot do successfully. The advantage of a private insurance system is that it is the most efficient way of handling the moral hazard problem. Its disadvantage is that a private insurance system can provide only limited deposit insurance. A reinsurance scheme may have the advantages of both these systems without the disadvantages. If the FDIC were to insure private associations instead of banks, deposits would still be completely safe. Moreover, banks would have an incentive to monitor themselves. Banks within an association would be liable for their members' losses. The FDIC would step in only when the association itself was in financial trou-

ble. By imposing the appropriate incentives--a deductible, for example--on the private associations, the FDIC would be able to insure deposits and promote a safe banking system without the massive monitoring problem it faces today.

Having the government reinsure private companies that insure banks may solve some of the regulators' problems, but like the other alternatives, it would create some problems too. Compared to lowering deposit insurance coverage or imposing risk-related premiums, a reinsurance scheme requires considerable change. Before such change could be made, many questions would have to be answered. For example,

- Should the government directly promote private insurance funds, or will they evolve on their own?
- If the government promoted such funds, should they be sponsored by counties, states, or some regional areas such as Federal Reserve districts?
- Should bank membership in a private insurance company be voluntary or mandatory?
- Should insurance company membership in the FDIC be voluntary or mandatory?
- How should the FDIC reinsure the private companies?

Finding answers to these tactical questions is one type of problem regulators would face with a reinsurance scheme. Another is the transition problem of banks that are currently deemed quite risky. With a reinsurance scheme, just as with variable rate insurance, banks that have already taken on too much

risk would be in trouble. Private insurance premiums for these banks may be prohibitive. A decision by these banks not to have insurance might not work either. Since few depositors would leave their funds in a risky bank without being compensated, the interest rate required to keep risk-conscious depositors from withdrawing their funds could easily be just as prohibitive as the private insurance premiums.

V. Conclusion

The banking problems of the summer of 1982 should not be interpreted as problems for just a few banks that mismanaged their portfolios. Evidence suggests and the market is aware that the entire banking system is more vulnerable today than it has been in many years.

Closer monitoring of bank behavior is the conventional remedy for increased vulnerability and the one currently being tried. This remedy has not worked well lately, however, and it will not work in the financial world of the future. Because of the moral hazard problem in insuring banks, because of the difficulty regulators now have in monitoring bank behavior toward risk, and because of financial innovations that will make future monitoring even more difficult, it is time for regulators to reexamine the options for safeguarding the banking system.

Our brief exploration of the options, though, reveals a dilemma. Any change from the current regulatory environment creates other potentially serious risks to the banking industry. Even if regulators adopted what appears to be the most promising

way to reform the industry, a reinsurance scheme, in the short run simply changing the system may cause many of the problems that regulators are trying to avoid.

Footnotes

1/For both short- and long-term bank debt, the post-October 1979 average is significantly different from the pre-October 1979 average at the 99 percent level of confidence.

2/See, for example, [1].

3/See, for example, [10], [11], and [13].

4/For a brief history of deposit insurance schemes before FDIC, see [3], [4], and [5].

5/Information supplied by the Federal Home Loan Bank Board.

6/Other than one reference to a very limited form of reinsurance [11, pp. 862-63], we have not been able to find a discussion of this proposal in the literature.

CHART 1 BANK CAPITAL RATIOS 1968-1981

PERCENT



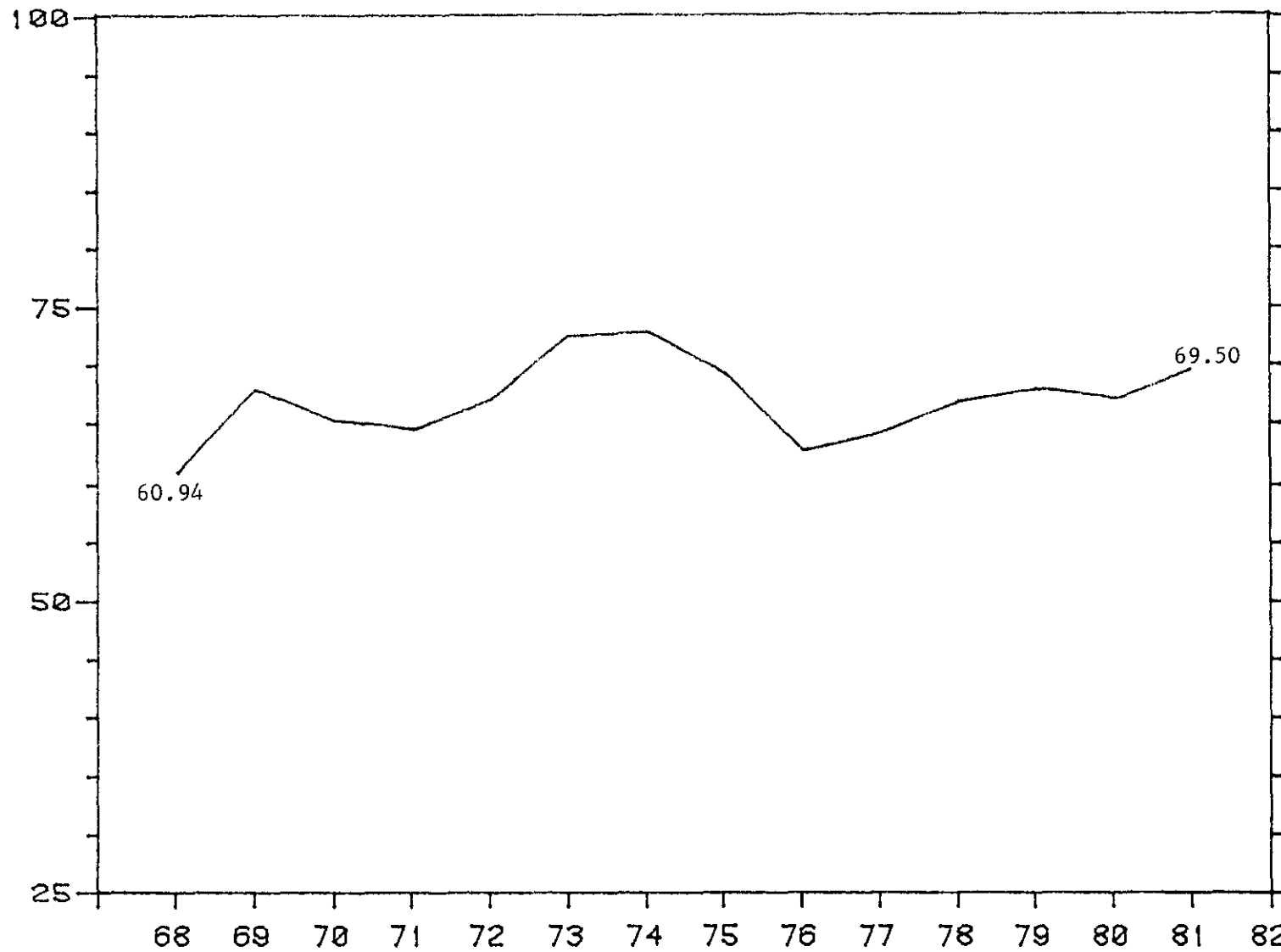
NOTE: DATA ARE FOR ALL INSURED COMMERCIAL BANKS
AS OF DEC. 31 OF EACH YEAR.

SOURCE: FDIC, "BANK OPERATING STATISTICS."

————	CAPITAL/RISK ASSETS
-----	CAPITAL/TOTAL ASSETS

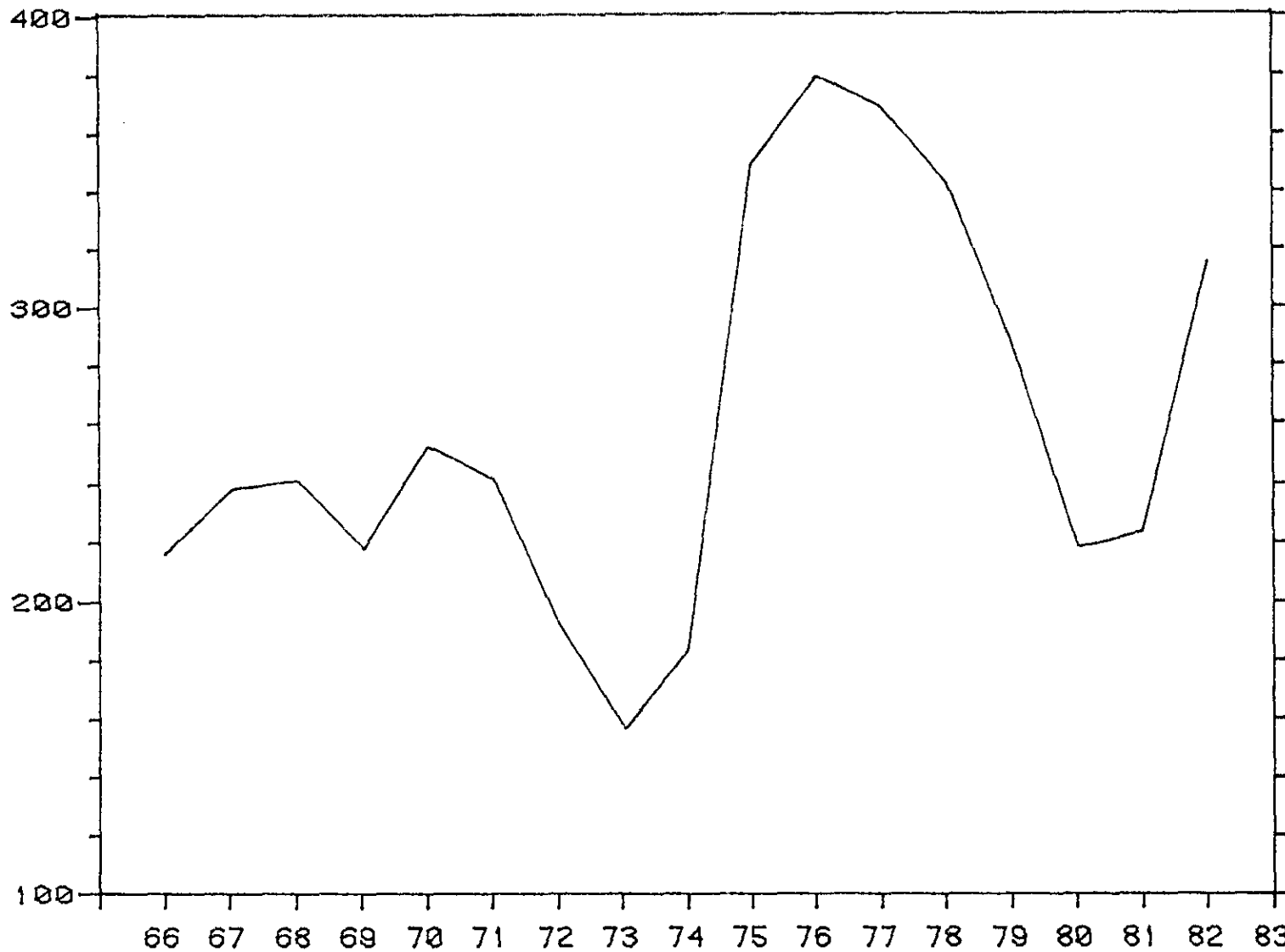
CHART 2
LOAN-TO-DEPOSIT RATIO
1968-1981

PERCENT



NOTE: DATA ARE FOR ALL INSURED COMMERCIAL BANKS
AS OF DEC. 31 OF EACH YEAR.
SOURCE: FDIC, "BANK OPERATING STATISTICS."

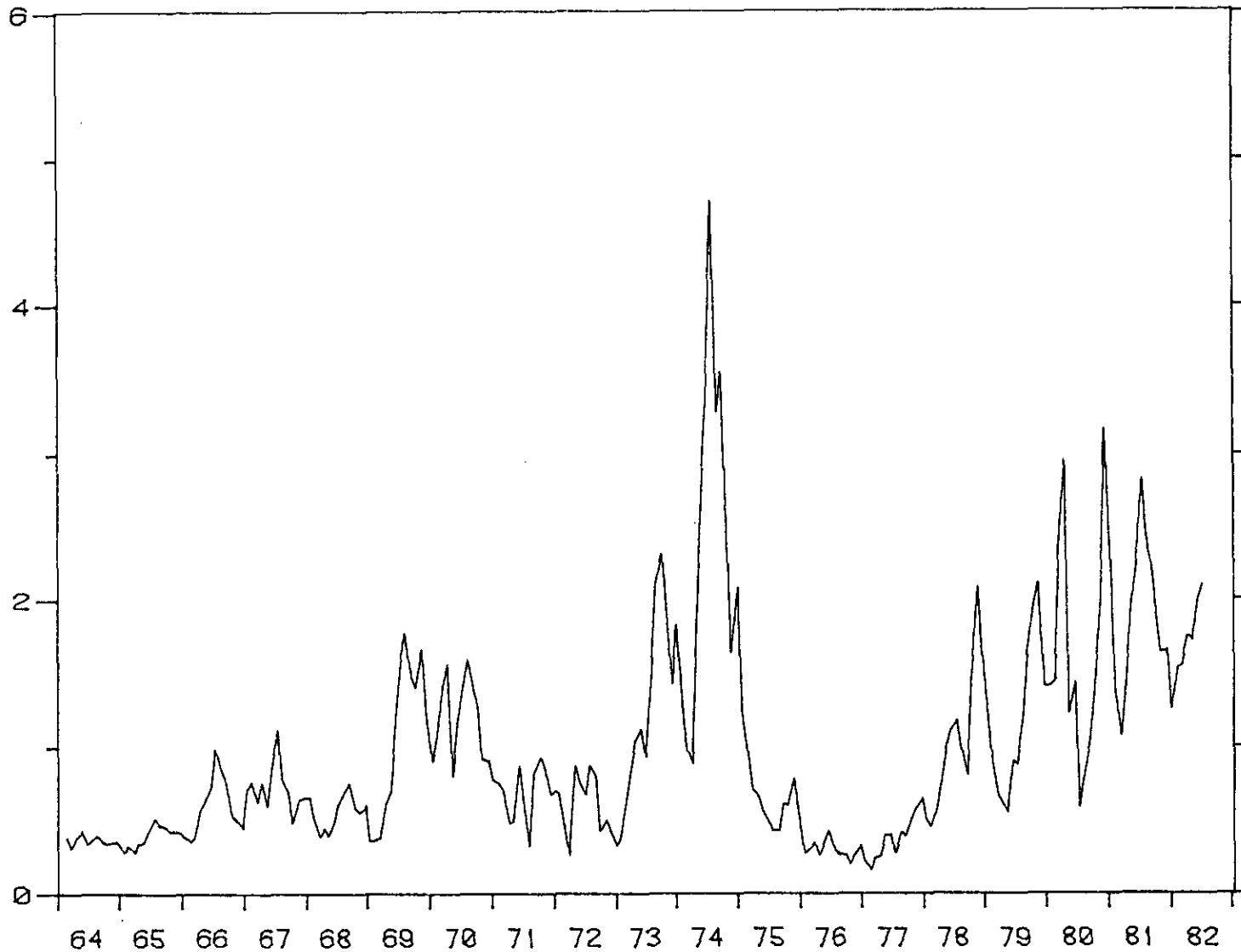
CHART 3
NUMBER OF PROBLEM COMMERCIAL BANKS
1966-1982



NOTE: DATA INCLUDE ALL COMMERCIAL BANKS LISTED AS "PROBLEMS" BY
FDIC AS OF DEC. 31 OF EACH YEAR (SEP. 30 FOR 1982).
SOURCE: FDIC, "ANNUAL REPORT, 1981," VOL. 1 FOR 1974-1981. FOR
OTHER YEARS, DATA WERE OBTAINED BY TELEPHONE FROM FDIC.

CHART 4
RISK PREMIUM ON SHORT-TERM BANK DEBT
1964:1-1982:7

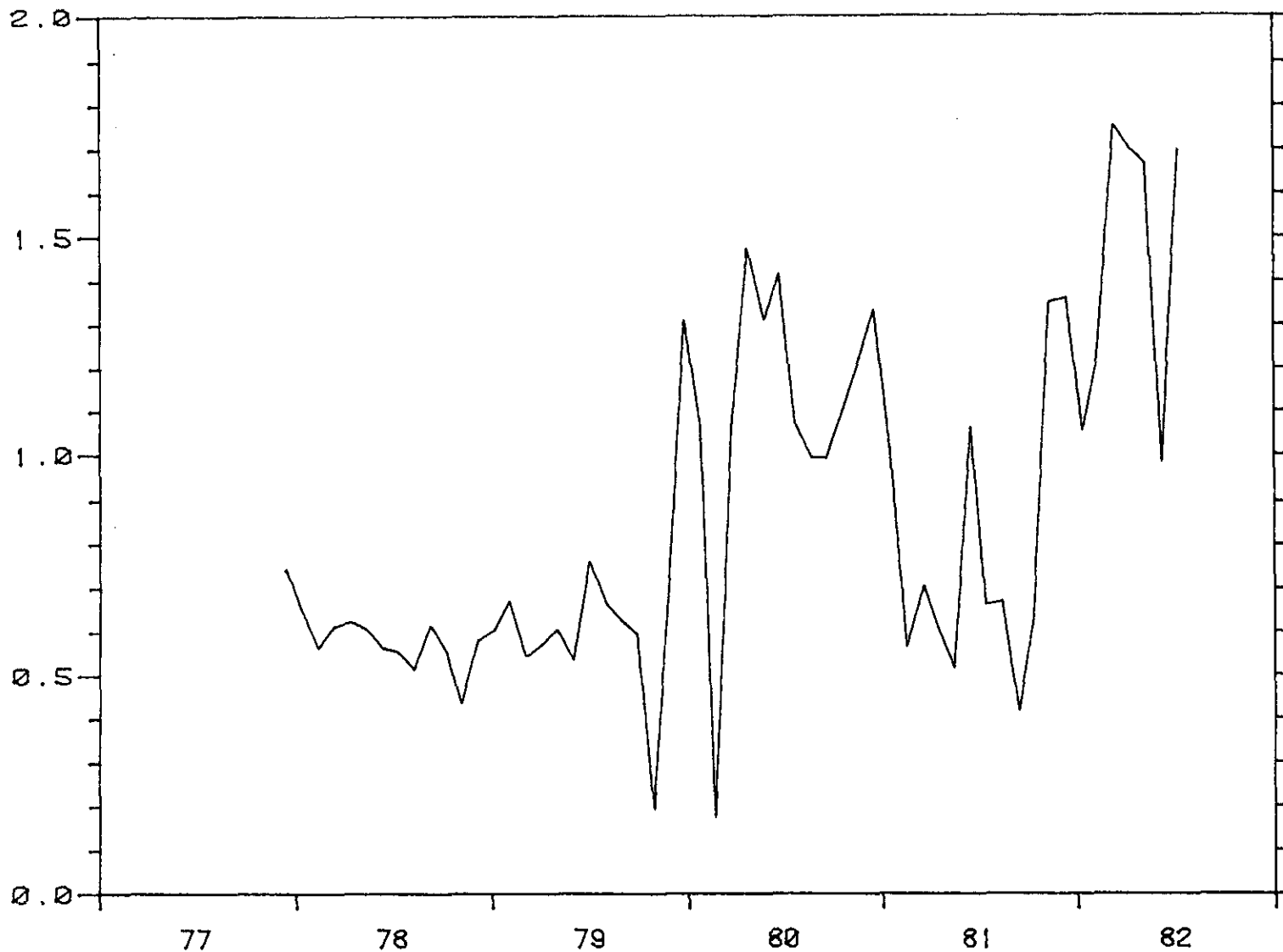
PERCENT



NOTE: DATA ARE DIFFERENCES BETWEEN THE 3-MONTH SECONDARY CD RATE AND THE 3-MONTH TREASURY BILL RATE. (BOTH RATES ARE MONTHLY AVERAGES OF DAILY FIGURES)
SOURCE: FEDERAL RESERVE BOARD.

CHART 5
RISK PREMIUM ON LONG-TERM BANK DEBT
1977:11-1982:7

PERCENT



NOTE: DATA ARE DIFFERENCES BETWEEN HIGH-GRADE BANK HOLDING COMPANY BOND YIELDS AND 20-YEAR TREASURY YIELDS. (BOTH YIELDS ARE MONTHLY AVERAGES OF DAILY FIGURES.)

SOURCE: MOODY'S INVESTORS SERVICE, FEDERAL RESERVE BOARD.

CHART 6
 BANK FAILURE RATES
 1934-1982

CHART 6A FDIC-ASSISTED BANK CLOSINGS

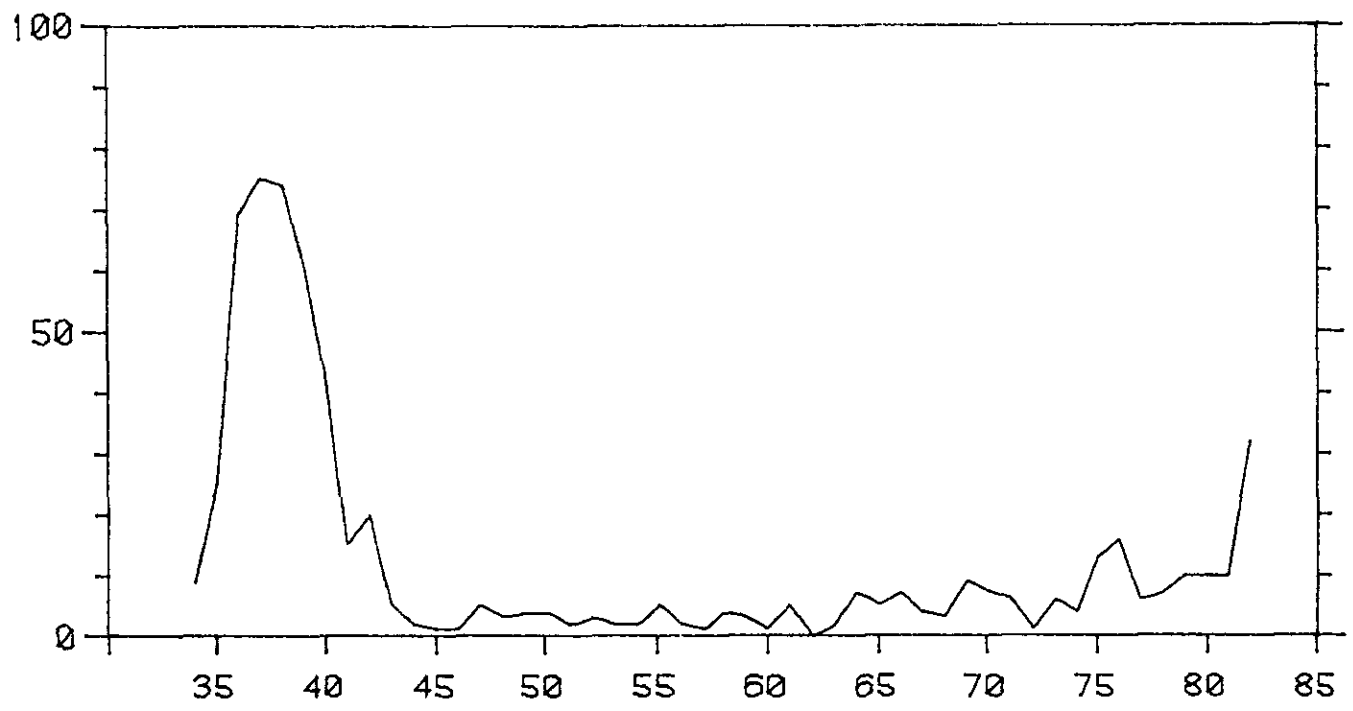
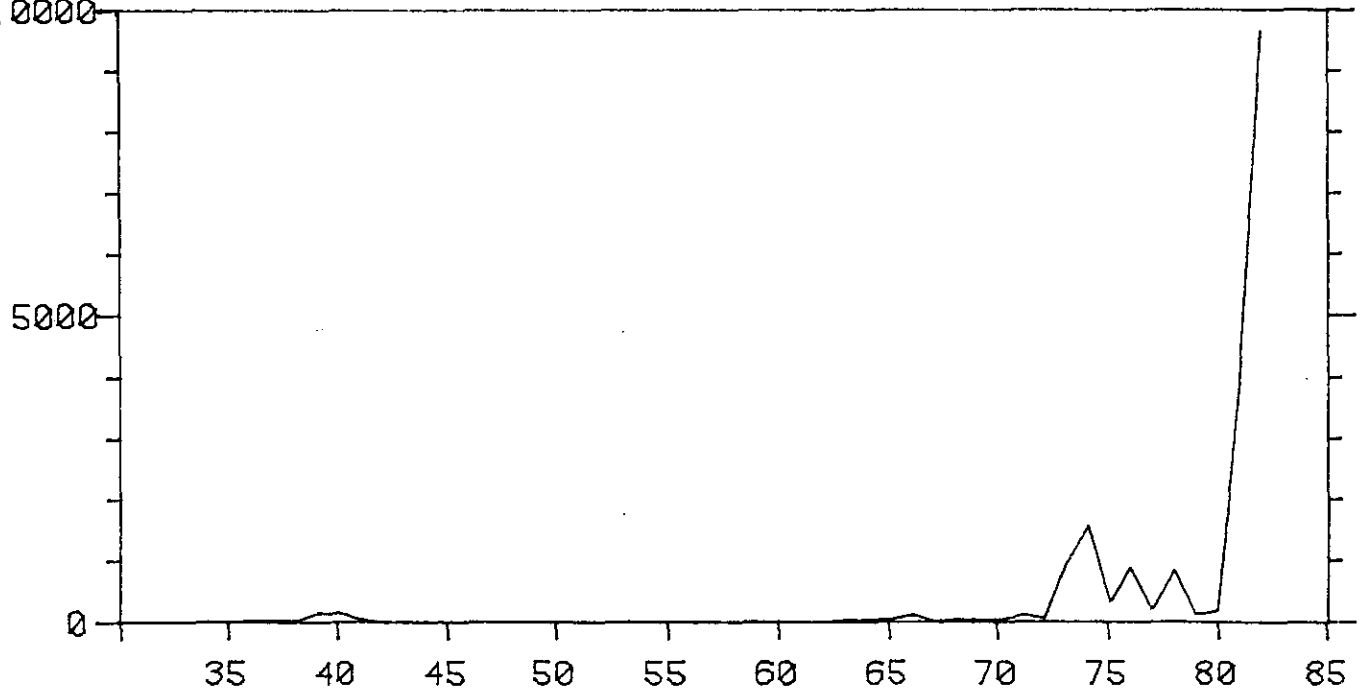


CHART 6B DEPOSITS OF CLOSED BANKS

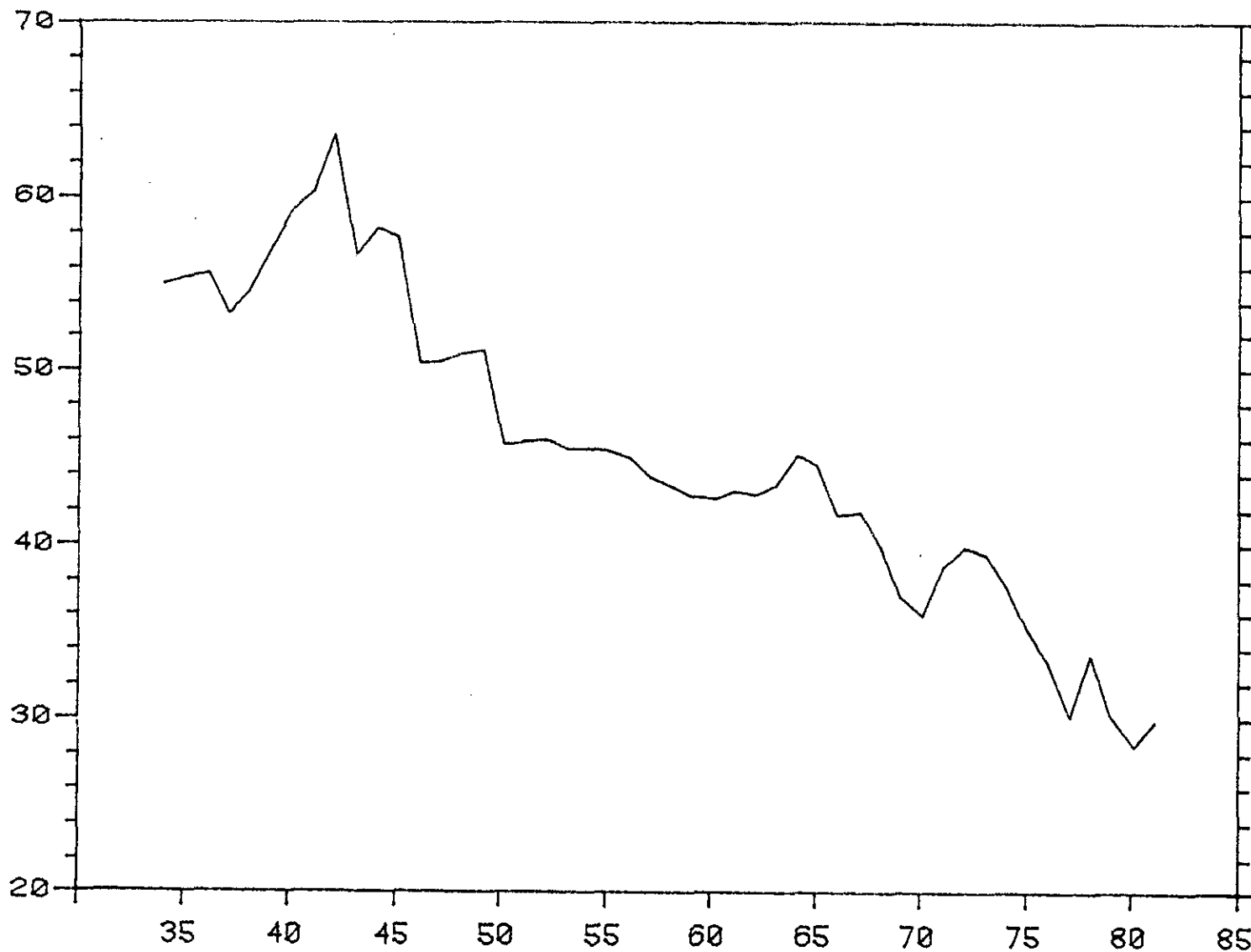
\$ MILLIONS
 10000



NOTE: DATA ARE FOR ALL COMMERCIAL AND MUTUAL SAVINGS BANK CLOSINGS ASSISTED BY FDIC. 1982 DATA THROUGH SEPTEMBER.
 SOURCE: FDIC, "ANNUAL REPORT, 1981," VOL. 1. 1982 DATA RECEIVED FROM FDIC BY TELEPHONE.

CHART 7
FDIC INSURANCE DEDUCTIBLE
1934-1981

PERCENT



NOTE: DATA ARE UNINSURED DEPOSITS AS A PERCENT OF TOTAL DEPOSITS
FOR ALL INSURED COMMERCIAL BANKS AS OF DEC. 31 OF EACH YEAR.
SOURCE: FDIC, "ANNUAL REPORT, 1981," VOLUME 1.

References

- [1] Bisignano, Joseph, and Motley, Brian. 1982. Risk, insurance, and central banking. FRB SF Weekly Letter (September 17): 1-3. Federal Reserve Bank of San Francisco.
- [2] Committee on Banking, Housing, and Urban Affairs, United States Senate, Ninety-Seventh Congress, Second Session. Hearing to Review the Causes, Effects and Implications of the Insolvency and Liquidation of the Penn Square Bank of Oklahoma City, December 10, 1982.
- [3] Federal Deposit Insurance Corporation. 1952. "Insurance of Bank Obligations Prior to Federal Deposit Insurance," Annual Report, Washington, D.C.: 59-72.
- [4] Federal Deposit Insurance Corporation. 1953. "Bank-Obligation Insurance System, 1829 to 1866," Annual Report, Washington, D.C.: 45-67.
- [5] Federal Deposit Insurance Corporation. 1956. "State Deposit Insurance Systems, 1908-30," Annual Report, Washington, D.C.: 57-73.
- [6] Federal Reserve Bank of New York. 1982. A report on Drysdale and other recent problems of firms involved in the government securities market. Transmitted by Paul A. Volcker to the U.S. Senate Committee on Banking, Housing and Urban Affairs, September 15.
- [7] Kane, Edward J. 1981. Impact of regulation on economic behavior: accelerating inflation, technological innovation, and the decreasing effectiveness of banking regulation. Journal of Finance 36 (May): 355-67.

- [8] Kareken, John H., and Wallace, Neil. 1978. Deposit insurance and bank regulation: a partial-equilibrium exposition. Journal of Business 51 (July): 413-38.
- [9] Knox, John J. 1903. A history of banking in the United States, ed. Bradford Rhodes and Elmer H. Youngman. New York: Bradford Rhodes and Co.
- [10] Kreps, Clifton H., and Wacht, Richard H. 1971. A more constructive role for deposit insurance. Journal of Finance 26 (May): 605-13.
- [11] Mayer, Thomas. 1975. Preventing the failures of large banks. In Compendium of major issues in bank regulation, 847-64. Prepared for the U.S. Senate Committee on Banking, Housing and Urban Affairs, 94th Cong., 1st sess., May. Washington, D.C.
- [12] Rose, Sanford. 1982. Random thoughts. American Banker (August 31): 1, 4.
- [13] Scott, Kenneth E., and Mayer, Thomas. 1971. Risk and regulation in banking: some proposals for federal deposit insurance reform. Stanford Law Review 23 (May): 857-902.
- [14] Sinkey, Joseph F., Jr. 1976. The collapse of Franklin National Bank of New York. Journal of Bank Research 7 (Summer): 113-22.
- [15] Subcommittee of the Committee on Government Operations, House of Representatives, Ninety-Seventh Congress, Hearing on Federal Supervision and Failure of the Penn Square Bank, Oklahoma City, Oklahoma, July 16, 1982.

- [16] Wall Street Journal. 1982. Mexico seeks to stop paying debt principal. August 20: 2.
- [17] _____ . 1982. Review and outlook: banking in the dark. September 28: 28.
- [18] White, Eugene Nelson. 1981. State-sponsored insurance of bank deposits in the United States, 1907-1929. Journal of Economic History 41 (September): 537-57.