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## 6.1 Introduction

In addition to our wish to improve bank management of risks, one of the driving forces behind the studies for this volume was a desire to reexamine some features of the system of bank regulation and point up areas in which procedures could be improved.

Complaints are widespread that government regulation of banks reduces productivity and raises the costs of borrowing and lending. Bank regulations are accused of weakening competition while giving rise to a plethora of wasteful non-price-competitive practices. As bankers shape their operations and lending, their decisions are said to be warped to circumvent regulatory constraints. Risk-taking is artificially reduced even as capital is wasted (Scott and Mayer 1971; Edwards and Scott 1979; Black, Miller, and Posner 1978).

But regulations, particularly in banking, did not arise capriciously or primarily as the result of bureaucratic pressure. They developed because of major crises in the economy and in financial markets. Regulations were imposed to avoid bankruptcies caused by failures of financial markets to regain stability. These market failures appeared to result from natural and inevitable features of our competitive system. Regulations have been continued because they have created a number of public benefits.

Existing regulations and the bank examination system attempt to control capital, liquidity, diversification, and risks while promoting sound management. However, controls are based on tradition, industry norms, and subjective evaluations. How to measure risks and what constitutes adequate capital have not been formulated in objective terms. The ratio of capital to assets has declined steadily. It is unclear whether this is due

to market forces or to weaknesses in the regulatory system. In critical cases, problem banks have ignored regulatory constraints because suggestions for change could not be formulated in an enforceable manner.

Yet the need for some regulation is widely recognized. Without regulations, an undue percentage of financial institutions are likely to take excessive risks. Because of the large amount of leverage, the difficulty of depositors' policing risk levels, the high cost of information, and the number of small, uninformed depositors, an institution can profit by raising its risk ratio. Moral hazards are also high; it is hard to protect against conflicts of interest and self-dealing.

The introduction of federal deposit insurance was a major reform. It reduced fear among depositors, ended bank runs, and helped stabilize the economy. It also potentially increased competition and choice among borrowers and lenders by making entry easier. Depositors do not have to seek size to ensure the safety of their claims.

However, the existing system has several actual and potential flaws. Because insurance premiums are fixed and flat at all levels of risk or capital adequacy, bank managers and stockholders can profit by increasing their risks at the expense of the FDIC. As a result, to curtail excessive risks, detailed regulations and examinations are necessary. It would be more efficient to protect the public by greater use of the market and through insurance properly priced to reflect risks rather than through regulations (Scott and Mayer 1971; Barnett 1976). Insurance should be expanded to cover unsecured depositors.

### 6.1.1 Special-Purpose Regulations

The criticisms of banking regulations are part of the general attack on government interference, but they are also specific with respect to the procedures that have evolved in banking.

The banking regulatory system is recognized as one of the most complex. With three federal and fifty state agencies, there is a large amount of overlap. The lack of centralization and absence of clear authority have been retained, primarily as a result of industry pressure. Bankers believe that competition among regulators ensures them more freedom and thus enhances the public welfare. In contrast, on the whole, bankers have opposed competition in interest rates and in location.

The regulatory system is expensive. Furthermore, it seems to have some built-in conflicts. The FDIC, Federal Reserve, and Comptroller of the Currency found themselves with considerably different interests and statutory requirements in the cases of the United States National Bank and Franklin National Bank. Each has been concerned over attempts of the Securities and Exchange Commission to protect investors furnishing nondeposit liabilities to banks. Inadequate understanding of the risks in banks and poor information systems lead to unnecessary regulations.

Problems and costs may be reduced if the market is allowed to handle what it can do efficiently. At the same time, productivity may be increased by determining what regulatory information is necessary and useful and what is not. With a more complete understanding, management of banks and their functioning in the economy can be improved.

It is claimed that regulatory regimes not carefully controlled become costly and inefficient. Regulations will tend to aid the existing firms in an industry at the expense of the public. Limits on chartering, branching, and many activities are maintained primarily as methods of reducing competition and creating monopolistic profits for banks. Our studies examined this issue only peripherally. We assumed that a better understanding of the underlying problems or risks might lead to a diminished fear of competition. This in turn might remove from the anticompetitive ranks those who support controls and regulations because they fear that competition unduly increases bank risks.

Many economists have concluded that interest rate ceilings increase instability and cause a redistribution of income, probably from lower- to higher-income groups. This is not a desirable or necessary result of regulation. These ceilings are now in the process of being phased out.

This volume has not attempted to evaluate another use of the regulatory system, that of allocating credit by controls over portfolios. In theory, programs that allocate portfolios to particular purposes can be paid for by charging the program whatever cost of insurance is adequate to handle the less-than-satisfactory portfolio diversifications that such programs create. If, for example, it turns out that portfolio regulations for savings and loans or credit unions lead to an unduly high need for insurance, such costs might be subsidized.

We are also not concerned with those regulations whose primary purpose is control over financial institutions on the assumption that they are powerful and are prone to misuse their power. Such excess power is more likely to arise from a lack of competition rather than from increased competition. If there are enough lenders, the excess power of any one is likely to be small.

Finally, while regulations also attempt to prevent fraud and insider misconduct, we do not deal with this problem either. Halting this type of action requires auditing and the enforcement of legal regulations. In other spheres, more use is made of the courts. Under existing procedures, competition is limited in its ability to prevent conflicts of interest and other malpractice. If there were no danger of monopoly profits, the need for regulations designed to control them would be eliminated.

Our emphasis has primarily been on the analysis of potential improvements in the regulatory process that could result from a more thorough application of the ideas developed in portfolio theory. We have searched for concepts that could improve the analysis of risks, on the assumption

that the regulatory process could be made more efficient if they were properly applied.

The next section takes up some of the reasons for the existence of banking regulations. Key questions concern whether the form of regulations is optimum and particularly the logic of the existing methods of examination, which is the fulcrum of the regulatory system. We scrutinize in more detail the examination system. We also analyze some of the issues related to when a bank should be declared insolvent and how much aid it should be given by the government either to remain open or to merge with another institution.

The concluding chapter in part 1 considers the possibilities of substituting a more general form of risk rating for that now used. It also cites specific examples where the model of capital adequacy and portfolio risk can improve existing regulatory procedures.

## **6.2 Reasons for Regulation**

There are many reasons why our regulatory system arose and is maintained. Regulations can create significant public and private benefits. Much of the argument over the form of regulation starts from the basic fact that the banking system has been unstable. Our history is full of bank crises and financial panics. However, during the 1960s, the belief (common in earlier periods also) grew that the problem of instability had been solved. From 1946 through 1970, bank failures averaged slightly over five a year. Banks that failed were primarily small ones. The largest bank that closed had \$40 million in deposits, while the average one had about \$14 million. Many felt that regulators had been overcautious, that the economy would be aided if risk-taking by banks was less vigorously controlled.

The situation changed rather sharply in the 1970s. The percentage of banks failing did not rise appreciably, but their average size did. Under the pressure of inflation, sharply fluctuating interest rates, and recession, fourteen banks failed in 1975 and sixteen in 1976. For the other years in this decade, the average number of failures remained at five. Between 1971 and 1980, including the emergency merger of Security National Bank and the aid to First Pennsylvania Bank, twenty large banks with assets totaling over \$20 billion required regulative assistance. The FDIC, according to Chairman Wille, was forced to make major decisions based on the possibility that its insurance fund was in danger of depletion.

### **6.2.1 Risk Levels**

Past experience is only one of the reasons why regulation and deposit insurance of financial institutions appear to be justified. Equally important is the basic fact that an undue percentage of unregulated financial

institutions are likely to take on excessive risks. Moral hazards exist. Given the large amount of leverage and the fact that much of the money comes from relatively small, uninformed lenders, it may be worthwhile for an institution to increase its risk ratio above that which would be determined by an efficient market with perfect information. Given a lack of information, owners or managers of institutions can reap large potential gains with limited losses. As a result, even though they are basically risk-aversers, they may push risk beyond the level optimum for society as a whole.

Such tendencies are fostered by the difficulty of policing the level of risks. Financial institutions can change their risk levels rapidly between reporting or auditing periods. In contrast to other types of corporations, it is difficult to protect the lenders to a financial institution by covenants, secured loans, and similar agreements, such as those found in the manufacturing or commercial sector. It is also far harder to protect against conflicts of interest and self-dealing. Regulation or insurance becomes a worthwhile policy because it substitutes a strong third party for weak depositors.

### 6.2.2 Information

Another basic reason for regulation is the high cost of information. While private suppliers of such information could arise, experience has shown that, to many small depositors or other small creditors, the cost of information may appear high compared with its value. Even for large lenders, problems of evaluating risk and the probabilities of fraud and mismanagement are such that it may be more efficient to have a monopoly source of information. This is particularly so if the monopoly can enforce rules and regulations against fraud and against the issuing of misleading information more simply than a variety of private information sources. In addition, analysis shows that, at times when a bank is in trouble, a single regulator may be able to find an efficient solution not possible to competing lenders (Shoven and Bulow 1978).

### 6.2.3 Instability

Regulation potentially can halt cumulative movements in credit and the money supply. Costs of instability have been high. General agreement exists that it is worthwhile to maintain the stability of the money supply by avoiding the cumulative bank failures that have occurred in the past. Even if one were not afraid of cumulative movements, large public benefits are realized when an average person is given the opportunity to purchase a simple risk-free asset, particularly if this asset is the medium of exchange. Financial intermediaries create benefits to the economy by simplifying borrowing and lending and increasing the level of risk-taking at lower costs. They can gather information more cheaply because of

economies of scale. They allow divisibility of assets to an almost unlimited degree. They lower transaction costs. They make it simpler for small savers to obtain adequate diversification (Kaufman 1975; Mayer 1975).

While arguments have been made that concern with individual institutions could be obviated if the central bank properly maintained the level of the money supply and acted as a lender of last resort, these are based upon an unwarranted assumption of stability. Many would argue, in contrast, that the problems of inflation and of exogenous shocks are so large that it is preferable for the central bank to concentrate its attention on problems of inflation and similar matters rather than on the safety of individual banks. One wants a system where the ability of the central bank to deal with macroeconomic problems is not constrained by its need to act as a lender of last resort at an early stage in the policy cycle.

The existence of deposit insurance is also an aid to competition and to potential entry into the banking system, while it ensures the continuance of significant information and banking relationships.

#### 6.2.4 Public Benefits

There are major advantages to competition in lending. The fear of concentration of power is not unfounded. Economic and political democracy is enhanced when potential borrowers are able to present their cases to as many potential lenders as possible. A system of insurance makes it possible to increase competition by sharing risks. More significantly, lenders and borrowers can deal with small banks because they need not spend large sums in checking them out.

While regulations and insurance may be necessary and worthwhile, there is no necessary reason why the risks of deposit insurance could not be assumed by private firms. However, their record has been dismal. Furthermore, they lack the certainty of payoff granted to a government insurer. Without such a guarantee, search and information costs to find the best insurer would rise. There might well be a tendency to choose on the basis of size. When offered a choice, knowledgeable consumers have picked government-insured over private-insured or uninsured institutions. They have voted with their dollars (Scott and Mayer 1971; Merton 1979).

Other social costs might also increase if the government left the deposit insurance field. Private insurers would exclude from their decision-making the social and public benefits that are part of the existing system. Questions of power in private hands would arise. It would be disadvantageous to substitute a limited number of private insurance decision-makers for the present mixed system with over 14,000 potential bank lenders. Finally, private insurers might find it more expensive to control fraud, since they would find it more difficult and expensive to invoke the final sanction of the legal system (Scott and Mayer 1971).

### 6.3 Conflicts in Goals and Procedures

Perhaps more significant than the debate over the need for regulation is controversy over its form. Even supporters of a need for regulation and its division among several agencies question the methods used. Regulations deal primarily with the type of activities banks can undertake, their portfolios, and their capital; with controls over chartering and branching; with price-fixing of their charges and interest rates they can pay (regulation Q); and with insurance of their deposit liabilities. The regulations are enforced by bank examinations, by the requirement of charters, permits, or approval, and by private lawsuits.

#### 6.3.1 Protection of the Deposit Insurance Fund

A critical issue, and one raised constantly by the studies, is the degree to which current regulations are required because of the form deposit insurance has followed. Many types of insurance adjust the premium to the risk assumed by the insurer. This is not true of the FDIC. Insurance premiums are based on the volume of insured deposits and not on potential losses. As a result, unregulated banks could increase their profits at the expense of the FDIC (cf. chap. 8).

Since deposit insurance is deemed worthwhile by most observers, the ability of banks to gain at the expense of the fund implies some need to control risks or capital. It clearly does not, however, imply a need for the existing forms of control. This is a major reason for a careful reexamination of the existing system. Are there simpler and more efficient procedures that can protect the insurer, depositors, borrowers, investors, and the public from the dangers of instability and bankruptcy as effectively as—or better than—the existing methods?

#### 6.3.2 Regulation of Risk and Capital

In this volume we have primarily examined knowledge and existing or potential regulations relating to the measurement of risk and capital adequacy and insurance premiums. These are among the regulations many have claimed are both arbitrary and restrictive. In attempting to control unsatisfactory practices, regulators may penalize progressive managements. In attempting to establish minimum levels of competence, regulations may reward primarily those firms that are mediocre and remain faithful to older traditions. Many critics have argued that the FDIC and the other regulators have maintained too many inefficient banks while also lowering national productivity by restricting the investment decisions allowed to financial institutions (Meltzer 1967; Gibson 1971; Mayer 1965). Abolition or complete reform of the insurance system has been urged.

What we have tried to find is the logic of existing rules and the degree to which they are necessary to restrain those who would profit by taking

excess risks at the expense of the public. Concern over risks of insolvency has led to regulations with respect to:

1. The types of activities banks can undertake.
2. Requirements over liquidity and diversification in the bank's portfolio of assets and liabilities.
3. Insider misconduct through loans.
4. Capital requirements.
5. Classification of loans by examination.
6. Information to stockholders.

The most important of these regulations deal with limitations on types of activities, requirements of liquidity, diversification, and capital (Edwards and Scott 1979). Proposals for reform require a great deal more knowledge of what risks exist in a particular portfolio policy, and of how these relate to the amount of capital. This is the key matter we analyze in the remainder of this volume.

Although the concepts are closely related, we tend to analyze the problem from the point of view of the depositor or insurer, not the stockholder. The protection of stockholders by regulation is a special problem. In the past they have been given inadequate information because of the fear that, if adequate information were made available to them, it would cause a flight of depositors or other lenders and thus might lead to the failure of the institution.

This type of argument has been carried over from the preinsurance era. It makes sense in the current context primarily because of the failure to clarify who is really insured. If institutions are required to maintain a proper level of information on their capital and risks, the facts should be available to both the uninsured depositors and the stockholders. Failure to make such information available can only lead to unnecessary risks of panic withdrawals, higher costs, and inefficiency. It is likely to increase, not diminish, the remaining residual risks of runs on a bank.

### 6.3.3 Regulation of Risks

The principal regulatory control over risks in banks has been through the process of bank examination. The examination aims at judging the bank's compliance with existing rules and regulations. Equally, or more important, the examiners attempt to judge the soundness of the bank, its prospects of avoiding insolvency, and its ability to meet current and future needs of its community. The soundness of the bank is a function of its management, ownership, and operating procedures; its liquidity or ability to meet future demands for cash; and, above all, its capital adequacy. The examination report is the basis for numerous approvals banks may need from their regulators (Sherman 1977).

However, important questions have been raised with respect to the efficacy of the examination process and methods of improving it. The

system has been criticized as too backward-looking, too concerned with detail, ineffective, and lacking in objective standards.

The examination system has been characterized as aimed primarily at measuring trends on the basis of past actions. The current situation of the bank is analyzed, and suggestions are made for improvements. Examiners have not attempted to measure portfolio risks that arise from exposure to possible future events (Flannery and Guttentag 1979). Too little attention has been paid to possible movements in interest rates.

Many believe that the system places too much emphasis on detailed analysis of individual loans. The stress is on record-keeping and on delays in loan payments. The amount of specific detail employed may make sense with respect to small banks, but even here it is not clear why private auditors and enforcement by courts of legal restrictions cannot do as good a job or better. Other related industries do not depend on similar detailed regulatory examinations.

The Comptroller of the Currency, recognizing that the traditional examination process may not suffice for large banks, has established a National Bank Surveillance System and Divisions of Special Projects and Multinational Banking to analyze operations of all banks with over \$2 billion in deposits or of those having special problems.

What are required are techniques for measuring the actual changes in banks, as well as measures of capital adequacy that can be applied objectively. Current procedures have placed too much emphasis on finding the status of a bank, while giving some weight to trends in loan losses and earnings. If a bank has inadequate capital at the time of examination, the regulatory solution has been to urge its managers to increase its capital or decrease its risk.

For many years, regulators had great difficulty enforcing such requests for added capital or other actions. However, under the Financial Institutions Supervisory Act of 1966, strengthened by the Financial Institutions Regulatory and Interest Rate Control Act of 1978, regulators were given cease and desist powers that greatly enhance their enforcement ability. These powers do not, however, reduce the need for standards to be applied. The examination process continues to pay too little attention to the overall portfolio risk.

#### 6.3.4 The Regulatory Background

All insured commercial banks are under the authority of more than one regulatory agency.<sup>1</sup> National banks are under the authority of the Federal Reserve, the Comptroller of the Currency, and the Federal Deposit Insurance Corporation (FDIC). State member banks are under the authority of the Federal Reserve, the FDIC, and the state banking commis-

1. Most of the rest of this chapter was prepared by Dr. Laurie Goodman.

sioner. State nonmember banks are under the authority of both the FDIC and the state banking commissioner. However, the examining agency has the primary responsibility for regulating the banks it examines.

Commercial banks are examined at least once a year, more often if they are believed to represent special risks (Benston 1973). National banks are examined three times in two years by the Office of the Comptroller of the Currency. State member banks are examined once a year by the Federal Reserve. The FDIC examines state nonmember banks every eighteen months. The banking commissioner's office in each state examines all state banks, generally about once a year. In about half of the states, no attempt is made for the FDIC and the state banking commissioners to conduct their examinations jointly or concurrently. To avoid duplication of effort, the FDIC has begun a pilot program in some states in which it would rely upon the state banking commissioner's examination reports. The FDIC would check only on bank compliance with pertinent federal statutes (White 1976a).

The bank examiners will make sure that the assets and liabilities actually held by the bank correspond to the detailed statement of assets and liabilities that the bank is required to submit four times a year. Most of the examination time is spent studying the bank's loan portfolio and determining its credit quality. The examination also evaluates the quality of the bank's management and its system of internal controls. The reports of the bank examiners are discussed with the bank's top management. Frequently the managers are told to raise more capital or to stop various unwise business practices. These requests are often ignored, as Lucille Mayne points out. In 1972 she sampled 364 banks in the Fourth Federal Reserve District to determine if they had been requested by regulating agencies to provide additional capital between 1961 and 1968. Of those who replied, 30.3 percent indicated they had; of these, only 43.2 percent fully complied; 27.2 percent partially complied, and 29.6 percent did not comply at all.

The three federal bank regulatory agencies have adopted a uniform interagency system for rating the condition of commercial banks.<sup>2</sup> Previously, the three agencies used different systems for bank evaluation, which made interagency comparisons difficult. The new system involves an assessment by bank examiners of five critical aspects of the bank's operations. These critical factors are then aggregated in an overall rating of the bank condition. The five dimensions that are examined include "the adequacy of the bank's capital; the quality of the bank's assets (its loans and investments); the ability of the bank's management and administration; the quantity and quality of the bank's earnings, and the level of

2. Board of Governors of the Federal Reserve System. Press Release, 11 May 1978, and Federal Financial Institutions Examination Council, *Annual Report 1979* (Washington, D.C.).

its liquidity.” Each of these performance dimensions is rated on a scale of 1 to 5, with 1 representing the highest level of operating performance and 5 the lowest. A rating of 1 indicates strong performance; a rating of 2 means satisfactory performance, reflecting the sound operation of the bank; a rating of 3 represents fair performance, flawed to some degree; a rating of 4 reflects marginal performance that, if left unchecked, could threaten the viability of the institution. A rating of 5 reflects unsatisfactory performance in need of immediate attention. The composite rating is also on a scale from 1 to 5. The composite rating is not a mere average of the ratings on the five dimensions; the interrelationships among the aspects of the bank’s operations are considered. Banks rated 4 or 5 are deemed to have “financial, operational or managerial weaknesses so severe as to pose a serious threat to continued financial viability.”

### 6.3.5 The Troubled Bank

If the condition of the bank deteriorates to the point where it needs to be monitored more closely, the FDIC will put the bank on its problem bank list.<sup>3</sup> The FDIC has three classes of problem banks: (1) “other problem,” (2) “serious problem,” and (3) “serious problem—PPO.”<sup>4</sup> The “other problem” banks are those that have significant weaknesses and require more than ordinary concern. “Serious problem banks” reveal weaknesses that urgently need correction. PPO—potential payoff situation—is the most serious problem state. Banks in this condition are judged by the FDIC to have at least a 50 percent chance of requiring financial assistance from the corporation in the near future. At year end in 1978, there were 342 banks on the problem list, or about 2.5 percent of all insured banks. Of these, 249 were “other problem” banks, 82 were “serious problem,” and 11 were “serious problem—PPO.”

If the bank ignores repeated informal correction procedures, cease and desist proceedings may be used by the examining agency. The trend is toward more frequent use of formal actions. The first cease and desist order was issued in 1971; there were seven that year, eight in 1975, forty-one in 1976, forty-five in 1977, and more than one hundred in 1978. The examining agency may issue a cease and desist order when the bank “is engaged . . . or the agency has reasonable cause to believe that the bank is about to engage in an unsafe or unsound practice in conducting . . . business, or is violating or has violated or the agency has reasonable cause to believe that the bank is about to violate, a law, a rule or regulation . . .

3. The Comptroller of the Currency and the Federal Reserve Board also have problem bank lists. The FDIC’s list overlaps but does not duplicate these lists. The FDIC is not concerned with supervisory problems that pose little risk to the fund.

4. The composite ratings of 3, 4, and 5 do not, as of now, directly correspond to the three classes of problem banks. It is not clear what the correspondence will be when the uniform system goes into complete effect. The FDIC has indicated that it will maintain its problem bank list for purposes of insurance exposure.

or any written agreement entered into with the agency” (12 U.S.C.A. § 1818b). When a bank is served with a cease and desist order, a hearing is held from thirty to sixty days later. If the bank defaults or consents to the order, it will become effective immediately. If the bank does neither and the hearing rules in favor of the agency, the order will become effective after a thirty-day lag. The main regulatory agency may also issue a temporary cease and desist order. This is effective upon serving, and, unless a federal court orders otherwise, it is enforceable until the underlying cease and desist proceedings are resolved. A temporary cease and desist order should be issued only when the sixty- to ninety-day delay might seriously harm the interests of depositors.

The FDIC wields the power to terminate a bank’s insurance. This power is rarely used. The FDIC may issue notice of an “unsafe and unsound practices situation” when it finds the bank is not in sound condition to continue operations as an insured bank (12 U.S.C.A. § 1818a). From 1934 to 1978, this action was taken against 243 banks. If the necessary corrections are not made within 120 days, the FDIC may give the bank thirty days notice of an intent to terminate its insured status. If the FDIC finds in a hearing that the practices are indeed unsatisfactory, and corrections have not been made, it may terminate the bank’s insurance. According to the FDIC Annual Report of Operations, 1978, of the 243 cases from 1934 to 1978, 240 had been closed by year end 1978. In slightly less than half the closed cases, corrections were made, and in most of the other cases the banks were absorbed by another insured bank or ceased operations before a date was established for insurance termination. In only thirteen cases was a date for insurance termination set. The termination order is subject to judicial review, but the broad wording of 12 U.S.C.A. § 1818a makes this merely a formality. It provides that the FDIC may issue such an order when it finds that the bank is engaged in unsafe or unsound practices, is not in safe or sound condition to continue operating as an insured bank, or has violated a law, regulation, or any condition imposed in writing by the FDIC.

For national banks, termination of insurance means that the Comptroller of the Currency must declare the bank insolvent and appoint a receiver. For state member banks, termination means loss of Federal Reserve membership. This power theoretically allows the FDIC rather than the Comptroller of the Currency to pull the plug on national banks. In practice, this has yet to happen. The Comptroller is a member of the FDIC Board of Directors, and national banks are placed in receivership long before termination of insured status.

#### 6.3.6 Lack of Effectiveness

Several studies question the effectiveness of the bank examination process (Mayne 1972; Benston 1973; Graham and Humphrey 1976).

These studies do not question the ability of examiners to find weak loans on a bank's books. Wu (1977) found that examiners had criticized about two-thirds of the loans charged off in a period in a sample of banks. Almost 10 percent of loans rated substandard and doubtful were fully charged off, while additional criticized loans led to partial losses.

Critics question whether examinations improve or hinder an efficient lending process. Many if not most of criticized loans are known to the banks. There is no indication that knowledge of the examiner's results improves the ability to predict future loan losses beyond mere knowledge of the bank's previous loss experience.

On the other hand, the process is expensive and time-consuming. It is believed to inhibit bankers in the lending process. As in football, Monday morning quarterbacking is not thought to be helpful, and it may make performance more timid. Bank examinations preceded the use of outside auditors. It is possible that any advantages of an outside review of problem loans could be obtained in a more efficient manner. In this as in other parts of the regulation process, more differentiation between large and small banks may be sensible.

#### 6.3.7 Subjective Standards

Regulators' decisions on capital adequacy are primarily subjective. No clear standards have been developed. In fact, over the past decade the Comptroller of the Currency has frequently stressed the necessarily subjective nature of the decision. The FDIC and Federal Reserve banks used somewhat more objective standards, but in the final analysis their decisions, too, appear to be subjective, even though they have paid somewhat more attention to balance sheets and accounting ratios.

Recently all three regulators have placed greater emphasis on industry norms or standards. The ability of computers to maintain and analyze a tremendous amount of data has enabled the regulators to set up "surveillance systems" that can rapidly spotlight outliers on any of a large number of accounting ratios or examiners' evaluations. Unfortunately, however, for optimum usefulness in applications, the systems require, but do not contain, standards for what constitutes adequacy (Martin 1977).

Sherman (1977) and Orgler and Wolkowitz (1976) contain descriptions of the primary factors considered by each of the regulators. The Office of the Comptroller, for example, has emphasized a subjective evaluation relating capital adequacy to the risks assumed by a particular bank. This requires evaluating management, ownership, and operating procedures; liquidity related to the deposit structure and ability to borrow; the earnings history in comparison with dividends, fixed expense, and amounts due on capital notes or debentures; loans classified by examination into substandard, doubtful, loss, or reported as nonperforming.

The FDIC has placed more emphasis on capital/asset ratios. They

adjust both capital and assets for classified loans. They also consider management, earnings, and past loan losses in determining a bank's rating.

The Federal Reserve System has had a far more complex "Form for Analyzing Bank Capital" (ABC) form. This form attempts to make a judgment concerning capital related to liquidity and to asset risks. Both credit and market (interest rate) risks are included, but the determination of what risks are involved remains arbitrary. Improvements have been made in measuring risks for investment securities; but, on the other hand, all loans are grouped together and are assigned a high capital requirement.

The Federal Reserve has additional standards for the capital requirements of bank holding companies. A number of proposed acquisitions or new holding company formations have been turned down on the grounds that capital was inadequate. The board examines the needs of the components of a banking organization as well as the overall leverage. In typical cases, proposals have been rejected because capital in a bank or banks has been considered inadequate, or because the structure of the proposal threatened the availability of capital to a bank.

In these, as in most, decisions the lack of objective standards creates difficulties. Except when a bank is asking for a privilege, regulators can only urge or attempt to convince a bank that more capital is required. Arguments about what is or is not adequate are difficult if not impossible to resolve. With the exception of bank holding companies where regulation is unified, banks have felt free to disregard requests for additional capital. They have recognized that competition among regulators reduces the risks of firm action. The lack of any objective capital standards has meant that the agencies have problems in enforcing requests for added capital. The list of enforcement proceedings shows long delays when a bank decides not to cooperate. Examiners do find illegal and illogical actions, but they also miss many. In large banks, they can be overwhelmed by details. Attempts are being made to centralize judgments on large credits and foreign exposures, but, again, these attempts cannot work without better standards and measurements of the risks involved.

Regulators strongly believe that examinations are useful and necessary. They point out that examiners do find bad loans, poorly operating banks, and banks that take excessive risks. We do not question these results. The critical issues are whether a better model and theory of risks and capital adequacy could make the examinations less onerous, improve their results, or substitute more efficient forms of regulation.

### 6.3.8 Early Warning Systems

Attempts are in progress to mechanize some of the examination process by using computers to pinpoint banks whose assets, liabilities, or

capital ratios deviate from those of the bulk of similar institutions. Thus far the attempts have not been very successful. Inequalities may indicate a risk of insolvency, but do not necessarily do so. Theories are needed to explain what is wrong with the banks the computer unearth.

That probabilities of insolvency can be measured through a limited number of factors on a firm's balance sheet and operating statement has been recognized. Beaver (1966, 1968) and Altman (1968, 1977) have examined the use of financial ratios in predicting bankruptcy among various types of corporations. The application of these techniques to banks has been studied at the FDIC and the Federal Reserve Bank of New York, among others.

Martin (1977) has summarized much of this information. Like the other firms, banks can be classified on the basis of a limited number of financial ratios into those likely to fail and those not as likely to fail. As they obviously should be, these factors are closely related to those that theory says induce insolvency.

Altman (1977) show that, for firms in general, risks depend upon levels and variance of earnings, upon leverage, liquidity, and size. For banks, Martin finds that the significant ratios are earnings as a percentage of assets, loan losses as a percentage of earnings, some measure of asset risk, such as either the percentage of commercial loans or liquid assets in total assets, and the ratio of capital to risk assets.

The problem with these techniques is that they classify very broadly and cannot discriminate accurately enough. Thus Martin shows that, applying the early warning system that he and others at the Federal Reserve have developed to the 5,500 or so Federal Reserve member banks in any year, predictions are obtained that about 650 specific banks are likely to fail. In actuality, of these banks for which failure is predicted as likely, only 10 to 15, or about 2 percent of the total predicted, will fail (counting forced sales or mergers of banks in trouble as failures in addition to those requiring aid or payment by the FDIC). Furthermore, the selected group will not include 10 to 20 percent of the banks that actually do fail.

Although these predictions can be useful, the error rates are so high that they cannot be used either to replace current examinations or as a basis for insurance. While they make more specific the spheres of recognized risk, they also indicate that a great deal more information about individual banks is necessary if an accurate system of risk measurement is to be developed.

### 6.3.9 Behavior toward Insolvent Banks

When a bank is believed to be insolvent, four courses of action are available to the primary regulator and the FDIC:

1. Close the bank and pay off deposits.

2. Cause a merger or consolidation with another bank.
3. Delay a declaration of bankruptcy in the hope that conditions will improve.
4. Not only delay bankruptcy, but make sufficient funds available to ensure the bank's viability.

Selecting any one of these actions is difficult for the regulator and the FDIC. Regulators do not like to close banks. There are potential social losses to the community from unnecessary bankruptcy charges and other disruptions in established borrowing and lending patterns. Frequently a political outcry arises purporting to show that the failure was due to poor regulatory actions. Stockholders, bondholders, and uninsured depositors all lose money and are unhappy. As a result, regulators will often risk future losses to avoid closing or merging a bank. Since the costs to the insurance fund will not be borne by the regulator with the responsibility of declaring the firm insolvent, such delays are even more likely to occur.

In cases where the fact of insolvency is not clear but rather requires a decision based on judgment, difficult choices face the regulators, particularly the FDIC. What is the optimum time to declare a bank bankrupt? If a bank cannot stay open under existing conditions, should the FDIC lend it money to stay open, or should it pay another bank to assume its deposits or merge with it?

These decisions require not only an analysis of the law but, even more, a basic theory that can enable the decision-makers to take full account of economic reality and the public welfare. The FDIC can act to support a bank or pay out funds to aid in a merger if it believes the bank is essential to the community or, according to 12 U.S.C.A. § 1823e, if "in the judgment of the Board of Directors [of the FDIC] such action will reduce the risk or avert a threatened loss to the corporation and will facilitate a merger, consolidation." This was interpreted over the years by the FDIC to mean "only if it's cheaper." The FDIC always has the option of simply paying off the depositors. If it does this and a merger (purchase and assumption) would have left more for the stockholders and/or general creditors, neither group has legal recourse. If a purchase and assumption was done and deposit payoff would have left more for the equity holders or other subordinated debt holders, they may seek legal recourse. For example, in one case the FDIC excluded some contingent and suspect claims to determine that purchase and assumption was cheaper. The stockholders are challenging this.

It should be noted that the decision between deposit payoff and merger is not always very simple. "Only if it's cheaper" does not have a ready interpretation when the value of the assets and liabilities is uncertain. If purchase and assumption has a slightly lower expected loss to the FDIC but a considerably higher variance, should it automatically be picked?

Often in the case of fraud, where contingent claims are extensive, the FDIC prefers a deposit payoff, since it places a limit on their liability.

In recent years the law has been interpreted more flexibly. The number of mergers or support to remain open has grown rapidly as deposit payoffs have diminished. In determining the public benefit in such cases, the concepts of portfolio risks, of the economic as opposed to the book value of the loans, and of the probability of future variances around expected values are particularly important. In deciding whether to give aid and, if so, how much, there should be a careful analysis of the actual economic costs involved. Failure to take into account the difference between book and economic values and what the market is forecasting about the future makes it probable that decisions will not be optimum from the point of view of either the regulators, stockholders, uninsured lenders, or the public.

#### 6.3.10 Deposit Payoff

Title 12 U.S.C. § 1821c provides that whenever the Comptroller of the Currency appoints a receiver "other than a conservator" of a national bank, the FDIC is to be the appointee.<sup>5</sup> The Comptroller will appoint a conservator only if there are strong reasons not to appoint the FDIC (in practice this happens rarely, if at all). A conservator has essentially the same duties as the receiver, except that, subject to the Comptroller of the Currency's approval, a conservator may allow the bank to continue in limited operation. The FDIC is required to accept the job of receiver if it is offered. With state chartered banks, the position falls either to the FDIC or to the state superintendent, as determined by state law. (In New York and California, it falls to the state superintendent.)

To maintain public confidence, the FDIC must pay off insured depositors as soon as possible after the bank fails (12 U.S.C. § 1821f). The FDIC regulations state that one or more "claims agents" are to maintain a temporary office at the site of the closed bank in order to receive claims for insured deposits. The FDIC may choose either to pay in cash, to make a deposit in another bank, or to make a deposit in an FDIC-operated new bank.<sup>6</sup>

The FDIC, as receiver, will now begin to liquidate the assets of the bank. At various stages of liquidation, creditor dividends will be paid;

5. This presentation relies very heavily upon the presentation in White (1976a).

6. White (1976a) states "Under 12 U.S.C. 1821h, the FDIC may own and operate a bank whenever "it is advisable and in the interest of the depositors of the closed bank and the public." The new bank must be in the same community as the old bank. This bank is operated as a nonstock corporation and is managed by an executive officer appointed by the FDIC. The bank must be sold or terminated within two years, and during that time the FDIC will cover any losses. This power is rarely relied upon; the FDIC will operate a bank only if the community the failed bank served would be deprived of any banking services."

these are prorated by the creditor's forced loan to the bank. The FDIC, in the case of a national or district bank, will count as a creditor to the extent of the insured deposits it has paid off, and as such it will be eligible for the creditor dividends. Before it makes a payment to insured depositors of state banks, it must be assured of its right to subrogate; that is, it must be assured that it will be considered the equal of other creditors.

If there is any money left over after all creditors are paid with interest, it will go to the stockholders. 12 U.S.C. § 197 provides that, after all creditors have been paid off, the FDIC will call a stockholders' meeting to determine whether the FDIC will continue as receiver and wind up the affairs of the bank, or whether an agent will be elected for that purpose. If they decide to elect an agent, an election will take place. "Wind up the affairs of the association," as the phrase is used in 12 U.S.C. § 197, means to sell all remaining assets. When state banks assets are being liquidated, state law governs the proceeding.

Even during liquidation, there are several thorny issues: What exactly are insured deposits? and Which creditors, if any, have priority? According to 12 U.S.C. § 1813m, an insured deposit is "the net amount due to any depositor for deposits in an insured bank (after deducting offsets) less any part thereof which is in excess of \$100,000 . . . and, in determining the amount due to any depositor, there shall be added together all deposits in the bank maintained in the same capacity and the same right for his benefit either in his own name or in the names of others except trust funds." Needless to say, "in the same capacity and the same right" has led the FDIC into the courts many times.

Offsets can be very important. If an uninsured depositor has a loan with the bank, the deposit will be offset by the amount of the loan. This is especially significant in the case of large banks. Barnett (1976a) points out that "examination of the Franklin failure shows how significant a factor loan offsets could be, particularly in a large bank failure. We estimate that about three-fourths of the uninsured demand deposits and one-third of all uninsured domestic deposits remaining at Franklin at the time it closed were protected by loss offsets" (p. 161).

Title 12 of the United States Code does not attempt to answer the question whether secured creditors are to be treated differently. The courts have generally held that secured creditors may share in the total distribution of assets pro rata, according to the total value of their debts and despite the fact some portion of the debt may be satisfied by the collateral held. Say that a secured creditor has made a forced loan of \$200. Also assume that his or her security is worth \$150, and the creditor dividend is 20 percent. The secured creditor will get  $\$150 + (.20 \times \$200) = \$190$ . It appears that a secured creditor can never get more than the credit and interest.

### 6.3.11 Merger or Consolidation (Purchase and Assumption)

In a merger of purchase and assumption, another insured commercial bank will take over the liabilities and often the assets of the failed bank.

The FDIC Annual Report of Operations, 1978, notes that since 1934 a total of 548 insured banks have failed. In 304 of these, depositors were directly paid off, and in 244 the FDIC arranged a merger. However, 90 percent of the deposit dollars were in bank failures handled by purchase and assumption. From January 1976 through December 1978, only 4 out of 29 failed banks were handled by deposit payoff.

Purchase and assumption cases are not handled nearly as mechanically as deposit payoff cases. In bank failures such as those of Franklin National and United States National Bank of San Diego, the packages put together to make the failed banks look palatable to other banks are truly a tribute to the creativity of the FDIC and the Comptroller of the Currency.

The Comptroller of the Currency (in the case of national banks) and the FDIC will approach banks they think may be interested in taking over the failing bank. There are three basic methods by which the FDIC can sweeten the deal, according to 12 U.S.C. § 1823e. First, they can lend money secured at least in part by the assets of the failing bank. While the wording of this statute does not prevent making the loan to the failing bank or its receiver, it is clear in context that the failed bank cannot receive the loan. This loan may be subordinated to the claims of deposits and other general creditors. This is equivalent to adding capital to the assuming bank. Second, the FDIC can purchase all or part of the assets of the failing bank, and the cash paid by the FDIC would go the purchasing bank. A third type of assistance takes the form of guarantees against loss extended to the purchasing bank (if you, the purchasing bank, lose more than \$100 million on liquidation of assets, the FDIC will cover any additional losses). This guarantee is a guarantee of the FDIC as insurer, not as receiver. Usually, a combination of the approaches is used.

The merger or consolidation usually occurs after a receiver is appointed. The Comptroller of the Currency or state banking commissioner will not officially declare the bank insolvent until the arrangements for the purchase and assumption are final. Hence the bank will be in the hands of the receiver for several hours, or perhaps overnight. The next morning, when the bank reopens, it will look to the public as if the bank has merely changed names.

### 6.3.12 How Much Is a Merger Worth to the FDIC?

In theory, the FDIC's decision to use its own funds to sweeten the terms of a merger should depend on a potential saving for the insurance

fund. In fact, the FDIC has paid increasing attention in recent years to political realities as well as to a broader view of costs to the public beyond those to the fund. In either case, the FDIC should be aware of the costs both to the fund and to the public under either alternative. One problem, however, arises from the difficulty of determining the long-run effects of increased government aid to an industry.

What causes costs to differ between a deposit payoff and a merger? A bank is insolvent when it cannot meet demands for cash or when the economic value of its liabilities exceeds that of its assets. If the FDIC pays out funds to insured depositors, it has a claim against a share of the assets. The remaining share belongs to the uninsured depositors, depending on their proportion of the total deposits when bankruptcy occurs. If the value of the assets finally exceeded deposit liabilities, excess funds would go to bond- and stockholders. If the FDIC pays for an assumption or merger, the uninsured depositors suffer no losses. Any bank assuming the deposit liabilities will insist that it be made whole for all deposits. The uninsured depositors in effect are paid off in full. The FDIC must cover their potential losses as well as those of the insured. This factor becomes important only if the uninsured deposits are a sizable share of the total. If they are, and a deposit payoff occurs, the FDIC's losses will be reduced by those of the uninsured depositors in comparison with what happens if a merger occurs.

Opposing pressures unfavorable to a payoff arise because assets in a merged bank are usually worth more than those same assets are worth to a receiver in liquidation. At least three reasons are found for such differences in value. The FDIC accrues administrative costs both to pay off the depositors and to liquidate assets. More important in most cases are losses in intangible values in a case of a payoff. A successor bank in a merger takes over the deposits as well as customers for loans and other services. Because relationships of these types are costly to develop de novo, such intangibles sell well in the market. On bids, the FDIC usually receives offers of sizable amounts above the book value of deposits. Finally, asset values drop when they are placed in the hands of a liquidator in comparison to their value to a going firm. Loans are harder to collect when they are not held by someone with a continuing business relationship. In some cases, borrowers require future infusions of funds to maintain their viability and their ability to continue payouts. Since the FDIC is not an ongoing lender, it has difficulty in meeting these needs. This further reduces asset values.

Since the gains to the FDIC at the expense of the uninsured depositors are usually relatively small, the existing system of having some insured and some uninsured depositors is awkward and perhaps really dangerous. It has value primarily because it adds a group of nonregulators to those examining and evaluating banks' risks and capital. Its value is diminished

because most uninsured lenders recognize that they have a form of default insurance. In all large bank failures, the FDIC has arranged a merger and assumption covering all deposits. There is only slight evidence that the existence of uninsured deposits performs the function intended and leads to additional evaluations and greater caution.

The present system may be dangerous if it forces the regulators to declare a bank insolvent at an awkward time. If an institution whose solvency is suspect faces a large cash outflow, regulators may be forced to act when they otherwise would not. Under our current system, the uninsured group includes large depositors, those holding deposits in foreign branches, and uninsured creditors such as those who make federal funds available. Any or all of these groups may withdraw funds because of fear. If these withdrawals are large enough, insolvency can follow unless the Federal Reserve or the FDIC steps in as lender of last resort.

Allowing these uninsured creditors to force the foreclosure of insolvent banks may or may not be useful. That they have funds at stake should mean that they are more careful, and therefore their surveillance should work to improve that of the regulators. On the other hand, when they become frightened, these funds can flow out rapidly and thus bring about the danger that insurance was formed to avoid. One can easily imagine a situation in which uninsured funds flow rapidly from all institutions that are even slightly suspect. We might be back at the preinsurance situation. Maintaining uninsured depositors and lenders retains the possibility of runs. If this fringe is maintained, they need a better information system so that they can properly evaluate the risks they take.

However, these depositors do serve a purpose. If their demands lead to a lack of liquidity, it is easier for the regulators to close the institution if they so desire. When closed, most institutions show positive book balance sheets. If there is a run, the lenders need not examine as carefully the question whether the economic balance sheet of the firm is actually negative. They can use the lack of liquidity and the fact that the firm cannot meet its cash demands without loans as a reason for closing it.

It is the presence of these depositors and the possibility of runs that give the Federal Reserve increased importance in determining when a bank should be declared insolvent. Paul Horvitz (1975) has argued that, in the case of large member banks, the Federal Reserve and not the Comptroller makes the insolvency decision. The Federal Reserve is legally allowed to make loans to any bank facing a temporary liquidity crisis, whether or not it is a member bank. It does not, however, have the power to make long-term loans to sustain a failing bank. The failing bank is unable to borrow federal funds, so its only source of borrowed money is the Federal Reserve's discount window, which lends on a day-to-day basis. The Federal Reserve can simply refuse to renew the loans. The Federal

Reserve as the central bank has a responsibility to provide ultimate liquidity to the *system*, but not to a given bank. The Federal Reserve can, if it chooses, totally ignore the Comptroller's wishes to keep the bank open a bit longer and the FDIC's wishes for more time to work out a merger. Horvitz believes, as many others do, that having three agencies with different objectives involved in large bank cases makes it impossible to attain optimal solutions in short periods of time. The need for regulatory reform in this area is crucial.

### 6.3.13 Delaying Bankruptcy

Even more difficult than the FDIC's decision on how much to pay to have a viable bank assume the liabilities of an insolvent one is the decision on how long to delay the actual declaration of bankruptcy. The potential social loss to the community from unnecessary bankruptcy charges and other disruptions argues for delays. So do the pressures from stock- and bondholders who will lose their funds. Opposition to delays arise because, after the point of economic insolvency, the public, through the FDIC insurance fund, bears all future losses, while any gains will go to the stockholders. Furthermore, agreement is quite general that a system that fails to penalize bad management will become far less efficient over time.

In cases of undeclared insolvency, insurance premiums are being used to underwrite insolvent firms. The FDIC is accepting additional risks without additional opportunities to recoup. If the market value of the firm's assets improves, stockholders will profit. If the market value falls, the insurer will lose. If the firm is not really insolvent, either stockholders should be willing to put up more capital, or the firm should be able to sell assets or borrow on them. In most cases, of course, if a positive net worth still exists, this is what does happen when capital falls to low levels.

Difficulties arise because some assets lack market value. A lack of liquidity can force the firm to sell off assets at below actual values. Valuation problems are compounded because the existence of low capital implies past losses and is an indication of poor management. Risks of hidden losses are greater for a firm that has shown itself less able than other banks in recent operations. Still, it may be worthwhile for all to keep insolvent firms alive. A private creditor might do so, but it would demand compensation for its extra risks by sharing in future profits if bankruptcy were successfully avoided (Shoven and Bulow 1978).

Just as the FDIC assumes undue risks and may create future problems each time an insolvent bank is allowed to stay open, in the hope that it may recover, so a bank allowed to decrease its liquidity unduly may create problems for the Federal Reserve. Since nonliquid loans and investments pay premium rates, banks that choose them can gain at the expense of the government.

The Federal Reserve and the FDIC should not be willing to furnish liquidity freely because, if they do, institutions can gain at their expense

by increasing the maturity and the average duration of their assets. An institution assured that the regulators will not force it to value depressed securities at their true market values can assume large interest rate risks. Losses from a lack of liquidity are among the risks that arise from mismatched maturities of assets and liabilities. A bank making such a decision should have to pay for its improper balancing.

#### 6.3.14 Monetary Assistance to Existing Banks

Still more difficult decisions, with respect to both economic analysis and potential adverse precedents, arise when the FDIC faces the question whether to lend or give money to an existing bank to help it avoid bankruptcy. If the FDIC agrees to furnish funds, what claims should it make against the future profits? In the First Pennsylvania case, for example, the FDIC lent \$325 million on a five-year subordinated debenture. The loan was interest-free for the first year and at below market rates for the remaining term. For this loan, the FDIC received warrants to purchase 13 million shares of common stock at \$3 a share. This was well below the market price that prevailed up to the agreement, since the market had underestimated the bank's severe difficulties.

While the Federal Reserve does not have the authority to make long-term loans to sustain a failing bank, the FDIC, under the powers granted to it by 12 U.S.C. § 1823c, can "make loans to, or purchase the assets of, or make deposits in [the] insured bank, upon such terms and conditions as the Board of Directors may prescribe, when, in the opinion of the board of directors, the continued operation of such bank is essential to provide adequate banking service in the community." This has happened only five times since 1950, when the FDIC was granted this power. In the case of Bank of the Commonwealth of Detroit, monetary assistance was provided because, owing to the oligopolistic nature of Detroit banking, there were only three other major banks, and Commonwealth made a significant contribution to bank competition and provided essential services to the Detroit community. In the case of Unity Bank and Trust of Boston, the FDIC felt the black-owned bank was essential to provide banking services to the black community of Boston. In the case of American Bank and Trust of Orangeburg, South Carolina, there were several branches that were the only banking establishments in their communities. The Farmers Bank in Delaware was the second largest commercial bank in Delaware and the sole legal depository for state funds. Under Pennsylvania law, there were no available merger partners for First Pennsylvania Bank.

The FDIC reads § 1823c to ban direct loans unless the bank's services are absolutely essential to the community. Failing banks frequently request monetary assistance from the FDIC. It is in the interest of their shareholders to do so. If the insolvent bank is merged or a deposit payoff occurs, the shareholders rarely get anything. If the FDIC can be pres-

sured into making a loan, and the bank winds up as a solvent entity, the gains go to the stockholders. If the bank fails after the loan is made, the stockholders are no worse off than if the loan had not been made.

### 6.3.15 Monetary Assistance versus Deposit Payoff and Merger

If there are real bankruptcy costs, situations may arise in which monetary assistance is, in the short run, the cheapest course of action open to the FDIC.<sup>7</sup> The rationale for this anti-intuitive result is that, if the bank recovers, the FDIC will get its loan back with no other monetary outlay. In a merger or deposit payoff case, the FDIC will never get back the money it puts in. If the probability of recovery is sufficiently high and there are real bankruptcy costs, monetary assistance may prove to be cheaper than a merger or deposit payoff. But, even though monetary assistance may be cheaper for a particular case, the FDIC may be setting a dangerous precedent that could be expensive. Other banks may fail to put up more capital on the assumption that the FDIC will lend them money when things get bad.

In reality, there should be few cases in which monetary assistance is actually more profitable. A failing bank usually has serious problems in managing assets and liabilities. Furthermore, if the FDIC were allowed to make loans whenever it was the cheapest action available, the problems of estimating the probability of loan recovery would be enormous. Banks would be appealing this decision if they were allowed, fighting the FDIC forecasts with their own. Furthermore, shareholders have had plenty of opportunities to put up capital before the bank reaches the point of insolvency. They chose not to, even though they must give up any right to intangible assets when the bank is declared insolvent.

Given that there are real bankruptcy costs, there is room for negotiation between the FDIC and the shareholders. The FDIC could offer to make a loan if the shareholders put up more capital. This is exactly what happened in the case of Bank of the Commonwealth. If, however, the FDIC did this consistently, banks would not get capital earlier, but would wait for the FDIC to bail them out. In the long run this could be far more expensive for the FDIC than occasionally incurring bankruptcy costs.

Another situation in which monetary assistance makes sense from a social viewpoint occurs when there is a unique social cost if the bank fails. This will happen if the bank is the only bank in the community, or if its loss will have a severe impact on the competitive banking structure in the community. Most of the FDIC's support decisions have been based on such reasoning.

7. A similar point is made by Shoven and Bulow (1977), who note that it may be in the interests of the creditors that a firm stays in business despite negative net worth.

### 6.3.16 Summary

The likelihood that our system of banking regulations can be entirely abolished is slight. A completely free banking system, such as that attempted in the nineteenth century, is unlikely to be sound. The costs of obtaining information with respect to bank risks and their control in a fully competitive banking system are probably unduly large compared with those of our existing system. The reduction that regulations have brought about in the risks of runs, of sharp shifts in credit and of money are of great value to the public. Deposit insurance is a sound and efficient concept.

However, the regulatory system has failed to integrate traditional techniques with all the potential values of the insurance system. Regulations, the examination process, and decisions on how to handle banks at or approaching insolvency can be improved if more attention is paid to possible future dangers. The risks to a bank are as likely to arise from its overall portfolio and operating structure as from individual loans. Yet regulations and examinations have been aimed primarily at control of individual activities rather than at portfolio risk.

Decisions on whether a bank is insolvent and the degree to which it should be helped to continue can be improved by a more realistic appraisal of economic balance sheets. While in some cases the existence of insolvency is obvious, in most an examination of a bank's current status as reflected in its books may be ambiguous. Insolvency depends on the values of the intangibles not shown on the books and on correctly calculating the over- or undervaluation of assets, as reflected in a comparison of book values with values determined by the marketplace.

