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# Business Conditions

Bank capital adequacy

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And then she went to the porridge of the Little, Small, Wee Bear, and tasted that; and that was neither too hot nor too cold, but just right. . .

## *Story of the Three Bears*

The soundness of the banking industry in general and of individual banks in particular has received considerable attention in the last few years. For the most part the attention has centered around the failures of several very large banks, the disclosure of information concerning massive loan and investment losses arising from the de jure or de facto bankruptcy of well-known corporations, municipalities, and investment companies, and from Congressional hearings scrutinizing the adequacy of bank regulation.

Ratios of bank capital to common denominators such as assets or deposits have been used as proxies for bank soundness by many parties interested in the financial conditions of banks largely because of the lack of other quantifiable measures. Capital ratios of the banking system have declined appreciably over the last 15 years giving rise to concern whether capital is "adequate." (See box.) Unfor-

tunately, ratio measures of capital adequacy predict poorly whether a bank or the banking system is truly "safe and sound" because of their static nature—a high capital ratio today is no guarantee of a high capital ratio tomorrow when assets and liabilities are revalued.

Additional fuel has been added to the capital adequacy debate by the failure of bankers and bank regulators to agree on the underlying purposes and functions of bank capital. This disagreement has shifted the debate from the fundamental issue of the extent to which bank capital ratios are related to soundness to the issue of how much capital is "adequate." The basic disagreement centers upon bank regulators' overriding, short-run concern with preventing bank failure—an event that would utilize bank capital for purposes very different from the uses of bank capital in a viable, on-going bank.

## **Banking as a regulated industry**

Because the extent and efficacy of bank regulation form a common thread running through the debate on the issue of capital adequacy, a discussion of this topic would be incomplete without a specifica-

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tion of the reasons why banking is regulated and the objectives of bank regulators.

One of the unique aspects of banking in the United States is its highly regulated nature relative to other industries. Many management prerogatives are limited by regulatory guidelines. For example, entry, exit, location decisions, asset and liability structure, *capitalization*, and pricing of

many bank services are generally subject to review by one or more bank regulatory agencies.

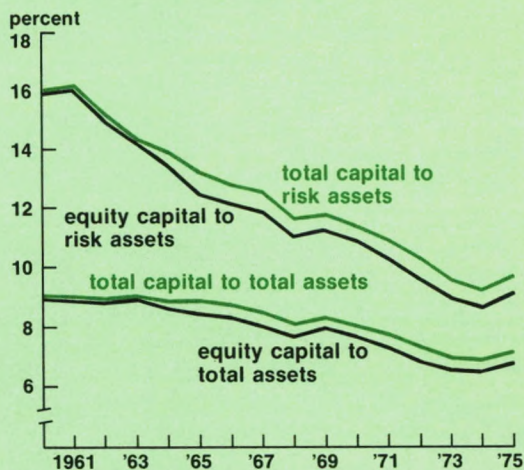
The high degree of regulation in banking is based on the far-reaching externalities inherent in banking. Externalities occur when the costs of one firm are affected by the rate of output or other performance characteristics of another firm. Pollution is a common example of an

### Bank capital

A bank's capital consists of two portions: the equity, or ownership (and control) portion, and subordinated capital notes and debentures which have a claim on bank earnings prior to equity interests but which exercise no voting control over the bank's practices or policies. In recent years banks have increased their sales of long-term debt, but at year-end 1975, long-term capital notes and debentures outstanding for all U.S. commercial banks amounted to only 6.5 percent of total capital accounts and less than  $\frac{1}{2}$  of 1 percent of total assets. For all commercial banks, capital represents only 7.2 percent of assets; the remaining 92.8 percent represents borrowed money of one form or another (demand and time deposits and nondeposit sources of funds such as federal funds and borrowings from the Federal Reserve). The low percentage of capital leaves banks vulnerable to a decline in earnings or a devaluation of assets. Capital protects depositors and other creditors by providing a cushion against which losses on assets can be charged. If, by virtue of a fall in the price of securities due to default by the issuer or loans becoming uncollectable, a bank's assets should come to be worth less than its liabilities, the bank would be considered technically insolvent and would be

forced to close. Thus the existence of a positive level of capital provides a threshold which separates a viable bank from an insolvent one. This accounts for much regulatory concern with capital requirements.

### Selected capital ratios for all commercial banks, 1960-75



Note: Equity capital is defined to include the reserve for losses on loans and securities. Total capital equals equity capital as defined above, plus subordinated notes and debentures. Total assets includes consolidated foreign and domestic assets. Risk assets equals total assets less cash and due from banks, less U.S. Treasury and Government agency securities. Ratios are based on aggregate data for all commercial banks.

Source: Federal Reserve Board



externality—the costs of some firms are influenced by the waste disposal habits of others. The banking system plays a pivotal role in the payments mechanism and the money creation process and acts as an important link in the transmission of economic stabilization policy. The cost and availability of money and credit, in turn, affect the operations of all economic entities in society; concern with the external effects of these factors provides the rationale for bank regulation.

### Objectives of bank regulation

The goals of bank regulation are a stable, safe, and competitive banking system. Unfortunately these objectives are not independent of one another; while possibly attainable and consistent in the long run, they at times conflict, vitiating the possibility of simultaneous achievement in the short run.

When all their objectives cannot be satisfied simultaneously, regulators must establish priorities. Because the financial sector and the banking industry tend to reflect the general state of the economy, these priorities can vary with changing economic circumstances. Thus, during periods of relative economic stability, the banking system functions smoothly and the risk of bank failure is minimal. Under such circumstances regulators and legislators are better able than at other times to focus on the competitive environment within the banking industry. Indeed, during the long, steady economic upturn of the 1960s, the major thrust of banking legislation showed a concern for the restoration of a competitive banking system. But during periods of severe economic stress, such as the 1930s and, to a lesser degree, the recent period, the banking system is not impervious to the economic chaos of the time, and the soundness and safety of the banking system tend to supersede considerations of competitiveness.

There is clearly a trade-off between a competitive banking system and bank safety and soundness. Attempts to achieve increased safety of the banking system (or of a particular bank) may be achieved, but at the expense of a possible loss in competition. Alternatively, a more competitive banking environment may be achieved by a decline in bank soundness and increased risk of bank failures. For example, competition would be spurred if restrictions on bank entry and branching were relaxed and interest ceilings on deposits were eliminated. The adverse effects on bank income likely to follow such a hypothetical regulatory shift might result in the failures of many banks, which would be inconsistent with the objective of maintaining a stable depository for much of the liquid financial wealth of the economy.

In order to ensure a sound banking system, regulators impose minimal capital requirements for the industry and attempt, through various enforcement procedures, to see that these capital standards are satisfied over time by all banks. The banking industry is somewhat unique in this respect, vis-a-vis both regulated and unregulated industries. If regulators were unable to impose capital standards on the banks they regulate, the issue of how much capital is adequate would be academic. However, the latest evidence is that bank regulators can and do have an important impact on the willingness of banks to augment their equity capital.<sup>1</sup>

### Appropriate levels of capital from differing perspectives

While the level of capital cannot be relied upon as the single indicator of a bank's condition, it nevertheless plays an important role in the evaluative processes

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<sup>1</sup>See John J. Mingo, "Regulatory Influence on Bank Capital Investment," *Journal of Finance*, September 1975.



of bank regulators, managers, stockholders, and large depositors. The desired level of capital will tend to differ from group to group because each exhibits different objectives with respect to a bank's operations.

If society's welfare is to be maximized, bank regulatory agencies should attempt to require neither too much nor too little capital.<sup>2</sup> Since bank managements and stockholders, bank regulators, and depositors are each likely to have different views with respect to the amount of capital which is, to paraphrase Goldilocks, "just the right amount," it would be fortuitous if each desired the level that is best for society.

Bank soundness can be guaranteed and bank failures virtually eliminated if capital requirements are set at extraordinarily high levels. But society may be worse off under these circumstances if this is wasteful of society's scarce capital resources. Indeed, society may be better off with some bank failures if the capital that would have been used to prevent bank failures has a higher marginal return to society when employed in an industry other than banking. In other words, from society's point of view there is some optimal number of bank failures, which need not necessarily be zero.

### Bankers' viewpoint

The primary goal of bank managers and shareholders is long-run profit maximization. The profitability of maintaining any given capital level must be

compared with the alternative uses of these funds. Since capital does serve as a permanent source of nondeposit funds, some level of bank capital (probably lower than that demanded by regulators) would be desired by bankers even in the absence of regulation.

Capital requirements serve many functions in the banking industry. First, they act as the price of entry for a new institution. After a bank has been established, the level of its capital influences its ability to maintain current activities, provide for growth, inspire confidence in the institution, and absorb unanticipated losses.

In general, bankers desire to maintain their capital at levels approximated by the highest of the following three minima:

(1) the minimum amount of loan loss reserves required to cushion the anticipated average level of losses resulting from normal business risk and possible incorrect judgments of creditworthiness;

(2) the minimum amount of capital necessary to convince large uninsured depositors that adequate coinsurance protection exists;

(3) the minimum amount necessary to satisfy the bank's own needs for a permanent (in the case of equity capital) or dependable (in the case of long-term debt capital) source of funds to support asset expansion.

From an individual bank's point of view, the maintenance of a level of capital greater than the largest of the above minima will (other things being equal) reduce the return on its total equity capital investment, which is contrary to its primary objective of profit maximization.

A bank's management and owners tend to view the bank primarily as an ongoing enterprise. Particularly during good times when the economy is expanding and there exists a near-zero bank failure rate, bank managers and stockholders may tend to be somewhat overconfident and

<sup>2</sup>In doing so, the objective of bank regulation should be to equate society's marginal return on bank capital with the marginal cost of capitalization, not an easy task in theory or practice. For a mathematical treatment see Anthony M. Santomero and Ronald D. Watson, "Optimal Capital Standards for the Banking Industry," and Stuart I. Greenbaum and Robert A. Taggart, "Bank Capital Adequacy," both in *Proceedings of a Conference on Bank Structure and Competition*, 1975, Federal Reserve Bank of Chicago.



view the probability of their bank's becoming a failure statistic as negligible. When operating under the "it can't happen to me" syndrome, which might characterize the banking system in the 1945-72 period, bankers clearly will desire considerably less capital than regulators. Only when the prevailing attitude shifts to "it can happen to me" will bankers' and regulators' desired levels of capital be close. At any point in time a gap will exist between the actual level of bank capital and the level which bankers and regulators desire, the gap being larger the longer the period during which bankers operated under the assumption that the possibility of failure could be discounted entirely. The principal factor separating bankers and stockholders from other groups (regulators and depositors) concerned with capital levels and standards is that bank owners and managers are the ones who bear the immediate costs of maintaining capital at levels higher than they desire.

### Regulators' viewpoint

Bank regulators are charged by law with maintaining a stable, sound, and competitive banking system. Since there are trade-offs involved in achieving these joint objectives, regulators have been given (by legislators to whom they are ultimately answerable) leeway or discretion to establish priorities among these objectives with the proviso that too many failures do not occur.

The usual caricature of the bank regulatory process views bank regulators as being primarily concerned with the total prevention of bank failure (and the setting of capital standards appropriate for that priority ordering). As with most caricatures, this one contains some elements of reality along with much exaggeration. A more reasonable characterization of the regulatory objective is the stabilization of the number of firms in the industry. The

reason such a regulatory attitude exists is simple. Regulators are not rewarded for successful attempts to promote a more competitive financial system because of the difficulty of measuring changes in the extent of competition. Indeed, as a consequence of recent bank failures, regulators have been faced with Congressional oversight hearings and threats to restructure the federal bank regulatory agencies. Bank failures are easier to verify than structural improvements in competition.

Given the reward and penalty structure, a bank regulator's dominant incentive is to demonstrate a major concern with bank soundness and safety. Legislators have similar incentives since an unstable financial system is unlikely to be conducive to reelection. In short, regulators tend to stress bank safety because the ease with which bank failures can be measured imposes a heavy cost burden upon them. Consequently, bank regulators usually desire a zero rate of bank failures. The conflict among the various groups interested in the banking system arises, in part, because the socially optimal bank failure rate is greater than zero.

That the divergence of the goals of regulators from the goals of bankers leads to regulators' desiring more capital than bankers should now be clear. Banks desire to maintain the minimal level of capital commensurate with the three purposes (reserves for normal losses, deposit coin-surance protection, and permanent source of funds) enumerated above. However, in addition to the functions that bankers believe capital is to perform, *regulators desire that capital serve other functions such as preventing bank failures or minimizing depositor loss in the event of bank failure, thereby providing confidence in the entire banking system.* If capital is to serve these additional purposes, a greater amount is necessary. Moreover, regulators derive some of the benefits that flow from banks maintaining higher



capital but do not share the cost burden of maintaining such standards.

### Depositors' viewpoint

Depositors are also concerned with bank capital adequacy. The existence of deposit insurance has made it unnecessary for small depositors (i.e., those with deposits below \$40,000 and for whom it would be extraordinarily expensive) to practice the principle of *caveat emptor* in choosing a bank. In essence, insured depositors have virtually no concern with questions of capital adequacy.<sup>3</sup>

Uninsured depositors, on the other hand, are vitally concerned with the adequacy of a bank's capital and desire at least as much, and under most circumstances more, capital than bank managers and stockholders. Uninsured depositors and other bank creditors are concerned with a bank's ability to pay its liabilities on any given day in the case of demand deposits or at maturity in the case of time deposits and nondeposit sources of funds. This simply requires the bank to have the necessary liquidity. A bank's liquidity, however, is very much dependent upon its ability to maintain an untarnished reputation. One way to do so is to maintain a level of capital sufficient to meet most unforeseen contingencies so that the creditworthiness of the bank is never questioned; otherwise, that bank's negotiable liabilities will suffer severe price declines in the secondary market, and its ability to roll over maturing CDs and nondeposit sources of funds will be seriously impaired. Monetary systems are based on credit and faith; when there is a breakdown in the latter, a liquidity crisis is bound to follow.

<sup>3</sup>One exception would be the case of a one-bank town in a rural area in a unit-banking state. The failure of such a bank might leave that bank's customers without a convenient banking location since another bank would be prohibited by state law from opening a branch office in that town.

Large depositors are concerned with a bank's capital base for reasons other than the liquidity guarantee. Although large depositors of insured banks have rarely suffered a loss of principal following a bank failure, they have occasionally incurred considerable interest cost and inconvenience in the aftermath of a failure. A sound capital base is necessary to attract large uninsured deposits since large depositors tend to view a bank's capital as a kind of coinsurance with Federal Deposit Insurance Corporation (FDIC) protection. Because capital also enables a bank to grow and expand its operations, large depositors can anticipate a wider range of services from a bank with sufficient resources on which to base future growth. In addition, a larger capital base generally enables a bank to make larger loans and serve larger—and presumably less risky—customers.

The degree of risk desired varies among large uninsured depositors. Some are willing to bear a much higher risk than others provided they are adequately compensated for bearing this risk. The multitiered CD and federal funds markets which developed in mid-1974 (when some banks were forced to pay a premium to obtain funds based on their size and/or location) provide evidence of the diversity of risk and average return desires of uninsured creditors of banks. Many uninsured depositors, if appropriately rewarded, would be willing to assume more credit risk than that desired by regulators; after all, those desiring zero credit risk can invest in Treasury securities. On average, the uninsured depositor group probably desires a level of bank capital somewhere between that desired by regulators and that desired by bankers.

Alternatively, it can be said that while regulators desire no bank failures, uninsured depositors are willing to live with a few bank failures provided they are given both the information they need to weigh



the risks and the compensation for bearing these risks. The importance of adequate financial disclosure cannot be overemphasized. A crisis in confidence with respect to the banking system or individual banks comes about because the public *suddenly* becomes aware that a bank is encountering difficulties, whereas they have been led by regulators to perceive all banks as carrying the same (i.e., zero) risk. Uninsured depositors might have believed in this myth in the halcyon days when large money-center banks did not fail; but since the failure of Franklin National Bank of New York, uninsured depositors no longer perceive all banks as being equally risky. In the absence of complete and timely information, banks have been separated into risk classes by criteria such as size, location, and rumor. At such times, many banks were forced to pay credit risk premiums that bore little relation to their true creditworthiness. To the extent that some uninsured depositors acted on the basis of a belief that the nation's largest banks would not be allowed to fail, the cost of funds to these banks did not rise concomitantly with the risks they were undertaking in their loan portfolio. Thus there was no effective market mechanism which acted to discourage the favored banks from increasing the riskiness of the institution.

### **The optimal level of capital —a return to the free market?**

It is unlikely that the actual level of bank capital—produced by the give and take and relative bargaining strengths of each of the three groups—is precisely optimal from society's point of view. To the extent that regulators are successful in eliminating bank failures by imposing their capital standards on the banking industry, the banking system is likely to be more capital intensive than it needs to be; that is, the rate of return on bank capital would be less (other things equal) than the

return on equity in other industries. This is not conducive to promoting a competitive banking system since the lower rate of return inhibits new entry into the banking industry, a significant problem because new entry into banking is already limited by regulatory action. Thus the rate of new entry into banking is lower than it would otherwise be if regulators were not the final arbiters on capital standards. Reduced entry into banking imposes costs on society because of the foregone competition in price, service, and convenience which might otherwise have taken place.

The setting of unnecessarily high capital standards is less than optimal in another way. If regulators are successful in setting capital standards, they require more capital than would have been determined by the market; that is, more than would have been determined solely by bankers and depositors pursuing their own self-interest. If the role of regulation is to act as a proxy for a perfectly informed market, then bank regulators are exceeding their charge by requiring bank capital to exceed market-determined levels. Regulators might defend their position by saying that the benefits of overcapitalization are worthwhile because reducing the number of bank failures also lowers the social costs of bank failures. However, this view ignores both the benefits of bank failures and the costs imposed upon well-managed sound banks that never would have come close to failure in the absence of regulation. Interestingly, if regulators operated on the basis of allowing failure, bankers might opt for more capital. Nevertheless, as a consequence of the cost-reward system imposed on them, regulators seek a level of bank failure below the optimal rate of bank failure.

The mere mention of an optimal rate of bank failure implies that bank failures are not, by definition, all bad. Indeed, the failure of a bank, like the failure of any other business enterprise, may serve some



useful purpose; namely, it tends to weed out the inefficient or mismanaged firms. To subsidize such firms by artificially perpetuating their viability through stringent regulation is unlikely to provide benefits to society that clearly outweigh the social costs.

In retrospect, the large bank failures that occurred in the last few years appear to have been comparatively unimportant economic events in that they did not exert a domino effect by touching off a *wave* of bank or other business failures, did not cause a breakdown in the payments mechanism, and did not cause widespread or even local unemployment. Large bank failures may even have been beneficial (particularly from the regulators' point of view) to the extent that such failures induced changes in practices at other banks—changes that might not otherwise have taken place.

The fact that banks, like other types of business enterprises, can fail and should be allowed to fail, is not a well-accepted point of view.<sup>4</sup> Banking, like any other business, entails risks, and such risks often entail losses, and ultimately, failure. Bank failures have been regarded by many as special calamities because of their effect on small depositors. Creation of the FDIC, however, seems to have satisfactorily coped with the effect of bank failures on small depositors.

Mismanagement, along with insider dishonesty and fraud, are the major causes of bank failure today. But bank failure arising from mismanagement serves a socially useful function. The *threat* of failure helps guarantee socially efficient resource use; actual failure terminates resource misallocation.

<sup>4</sup>Much of the following analysis of the benefits and underlying causes of bank failure is adapted from: A. Dale Tussing, "The Case for Bank Failure," *Journal of Law and Economics*, October 1967, and George J. Benston, "Bank Examination," *Bulletin*, New York University, Institute of Finance, May 1973.

Although the number of bank failures is not inextricably related to the capital ratios of the banking system,<sup>5</sup> the greater the amount of capital which an individual bank has available to absorb primarily unforeseen losses, the lower the probability of failure is for that bank. To the extent that a "normal" amount of losses is anticipated in the usual course of business, additions to loan loss reserves should be adequate to offset these losses if and when they take place. Few, if any, bank failures should result from the taking of "normal" business risks.

Unanticipated or abnormal losses occur due to miscalculations regarding: (a) the average rate of return earned on bank assets; (b) the variations or volatility of the rate of return earned on assets or the rates paid on liabilities;<sup>6</sup> (c) the rate of growth or decline of the market value of assets caused by (a) and (b); and (d) mismanage-

<sup>5</sup>See Vincent P. Apilado and Thomas G. Gies, "Capital Adequacy and Commercial Bank Failure," *The Bankers Magazine*, Summer 1972.

<sup>6</sup>As pointed out by Santomero and Watson, *op. cit.*, the average and the variability of bank earnings are affected (but not determined) by the monetary policy of the Federal Reserve System. The rate of growth of bank assets is also strongly influenced by monetary policy. If maintaining a stable banking system is an effective constraint on (i.e., it interferes with) monetary policy, then the Federal Reserve may be able to relax this constraint if it can require banks to maintain sufficient equity capital so that few bank failures can occur, thus maintaining a stable banking system and giving the Fed the necessary freedom to pursue its macroeconomic policy goals.

The Federal Reserve's setting of capital standards involves a case of overlapping jurisdictions. This particular problem of overlapping jurisdictions cannot be resolved by restructuring the regulatory agencies because it involves a conflict of goals which would still exist if capital standards were administered by a regulatory agency other than the Federal Reserve. While changing the administrative structure cannot eliminate the goal conflict, the structure may influence the extent to which the realized trade-off between conflicting goals approaches the optimum trade-off. See Jack M. Guttentag, "Reflections on Bank Regulatory Structure and Large Bank Failures," in *Proceedings of a Conference on Bank Structure and Competition*, 1975, Federal Reserve Bank of Chicago.



ment and fraud. Bank examination and remedial supervision have been designed to deal largely with mismanagement and, to a considerably lesser extent, fraud. Appropriate monetary and fiscal policies in combination with a lender of last resort facility should be able to cope with or minimize the disruptive effects of (a), (b), and (c) above. The existence of FDIC insurance should minimize—though not entirely eliminate—the likelihood of the failure of one bank precipitating other bank failures. Thus the economic benefits derived from attempting to eliminate bank failures by setting capital standards higher than those imposed by a well-informed market appear to need more careful evaluation and articulation than has been given them to date.

### Financial disclosure

#### —panacea or destabilizing force?

The changing nature of bank failures—namely, the possibility and actuality of large bank failures—has raised new questions concerning the role of the market in determining the optimal amount of bank capital and the optimal number of bank failures. The most important question is whether the market would act as a stabilizing or destabilizing factor if more complete financial disclosure were available.

For the discipline of the marketplace to provide a stabilizing influence, investors in bank securities, suppliers of federal funds, and owners of large deposits and CDs must penalize those banks with insufficient capital by shifting or threatening to shift their funds to other banks. The loss of deposits from undercapitalized banks should bring the capital ratios of these banks back into line with their better-capitalized counterparts. Due to the possible contraction of funds, borrowers with established relationships at undercapitalized banks may suffer at least tem-

porarily. But borrowers can change their banking affiliation to the better-capitalized banks that can accommodate them, thus putting further pressure on the undercapitalized banks to remedy their presumably inadequate capital position.

Two caveats are in order. Such movements of funds would have to be gradual if they are not to be destabilizing. Also, such fund flows would have to be of sufficiently small magnitude as not to produce a liquidity squeeze on a large segment of the banking population, thereby causing a crisis in confidence in the banking system as a whole. Given the importance of these two provisos, any move toward deregulation and more complete disclosure of “material” information would have to be effected with care, preferably in conjunction with a stable economic environment.

It has been argued that without stricter disclosure requirements, market pressures cannot act as a regulator of capital standards in a stabilizing manner because of serious lags in the disclosure process. As one scholar of the subject has written:<sup>7</sup>

While the underlying condition of large banks usually changes slowly, the markets' perception of their condition may change very rapidly. This reflects incomplete disclosure of data on bank operations and general lack of sophistication about banking on the part of many investors (the second condition being partly a result of the first). . . . Instead of constraining a bank in small doses by raising rates on bank liabilities as the bank's risk exposure rises, creditors tend to classify banks as 'safe' or 'other,' and when a bank swings into the 'other' category, its uninsured creditors run out as their claims mature.

<sup>7</sup>Guttentag, *op. cit.*, p. 141.



More complete and timely disclosure probably will not guarantee that the market will act as a stabilizing influence instead of a disruptive one, particularly with respect to large banks. It has been and probably will continue to be difficult for bank regulators to evaluate and to monitor emerging problems of large banks because of the great diversity of their activities and their tendency to innovate and enter new fields. If bank regulatory authorities have experienced difficulty in evaluating the condition of large banks, creditors of such banks are likely to encounter the same difficulties. However, if bank regulators were to defer capital standards to the marketplace, bank creditors would bear a larger share of the financial burden of incorrect evaluation and would be more inclined to develop the means or techniques necessary to determine a bank's soundness. Creditors themselves can evaluate banks directly or can purchase bank evaluation services that would be similar to bond and commercial paper credit-rating services. While this might not add to the ultimate stability of the banking system, it would provide a fairer and more optimal allocation of credit to banks than currently exists. High risk banks (i.e., those engaging in speculative lending activity) would be forced to pay a risk premium to attract funds, surely an improvement over having to pay a premium based upon size or location.

Prior to 1973, bank creditors relied upon the assumptions that regulators would not allow large banks to fail and that the capital of these giant banks was sufficient to prevent failure. The collapse of Franklin National in 1974 and subsequent events, such as the de facto defaults by New York City and several real estate investment trusts, have challenged the veracity of those assumptions. In view of the absence of financial panic following Franklin National's demise, it may be in-

appropriate to require that a bank maintain capital sufficient to drive the probability of failure to zero.

## Summary and conclusions

### —many questions, few answers

The issue of capital adequacy has received considerable attention largely because certain capital ratios are amenable to quantification, thus allowing seemingly objective statements to be made on the subject. Regulators and legislators have issued dire warnings about the state of the country's financial system, supporting their contentions and assertions with such "hard evidence" as the fact that any number of selected capital ratios have declined for several years. If, on the other hand, capital ratios had moved in the opposite direction, regulators and the public would really have no sound basis on which to conclude that the banking system was more safe and sound than previously. An increase in capital relative to deposits, assets, etc., (say, to the levels existing during the early 1930s) need not necessarily imply increased safety. Nearly ten thousand banks failed in the 1930-33 period when capital ratios were substantially higher than current levels. The important point is that the level of capital which is adequate depends upon the general economic environment of the time. Capital ratios may increase but that still begs the question of whether they increased enough (or more than enough) to maintain a safe and sound banking system. In addition, a safe and sound banking system is not free—increased safety is available but only at the price of giving up a more competitive environment. When put in this perspective, the relevant questions become "how much safety do we want; what will it cost; is it worth the price; and can we afford it?"

*Harvey Rosenblum*



