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8 Financial Regulation

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U.S. Financial Markets and Institutions in the 1980s: A Decade of Turbulence

The U.S. financial system suffered its greatest shocks in the 1980s since the Depression. Not since the 1930s did so many commercial banks and savings and loan associations fail. Because most of the deposits at these institutions were federally insured, the federal government will spend hundreds of billions of dollars during the next several decades cleaning up the wreckage.

The securities markets, too, experienced their share of turmoil. After rising more or less consistently for five straight years, the stock market plunged deeply between August and October 1987 and then dropped sharply again in October 1989. As the decade came to a close, the newly developed junk bond market collapsed, although at this writing it has substantially recovered.

The 1980s were not marked solely by disaster, however. The decade saw many innovations and success stories. Whole new financial instruments and markets developed at an almost breathtaking pace: asset-backed securities, variable rate mortgages, financial futures, to name just a few. While at the beginning of the decade many of the nation's largest banks were struggling, by the end new "superregional" banks seemingly came from nowhere to challenge the once dominant "money centers" for U.S. banking supremacy. Perhaps most surprising, all the financial troubles had little impact on the "real" economy. Indeed, as bank and thrift failures mounted, and despite the October 1987 crash, the economy marched upward, finishing the decade by marking the longest peacetime economic expansion in the nation's history.

As in earlier eras, policy-making toward financial markets and institutions in the 1980s was driven largely by crisis. Nevertheless, the remedies that put out the immediate fires, especially those that raged among depository institutions, have had significant longer-run consequences.

Not all crises during the decade triggered a policy response. For example, Congress took no action on "reform" suggestions advanced by a special administration task force convened to study the causes of the October 1987 stock market crash.

In addition, not all policy actions during the decade responded to crises. While Congress was deadlocked over the issues of interstate banking and financial product-line deregulation (or "restructuring"), many states filled the vacuum by legislating in each of these areas. Similarly, federal regulators took various steps under existing law to better adapt the financial framework to ongoing market developments. Finally, toward the end of the decade, bank regulators in the major industrialized countries launched an ambitious effort to put bank regulation in these countries on a common footing, a step that may foreshadow future international cooperative regulatory initiatives on other financial and, perhaps, nonfinancial issues.

This chapter attempts to make some sense out of these and other events and developments. Given the broad scope of the U.S. financial services industry and the limited space here in which to consider it, it concentrates only on depository institutions and securities markets. This limited focus means that other important developments affecting financial markets or institutions, such as the crisis in property-casualty insurance in the mid-1980s, must be ignored.

The discussion begins with some brief background information on the U.S. financial system that is relevant for understanding the important developments in financial markets and institutions during the 1980s. The chapter then describes those developments, both episodic and structural, noting how federal policy-makers responded (or didn't respond) to each. Specifically, why did Congress react to at least some of the crises in the depository industry but take no action following the stock market crashes of 1987 and 1989? Similarly, what accounts for the failure by Congress to address in a meaningful fashion the important structural weaknesses in the U.S. financial system, despite several opportunities to do so?

Answers to these questions provide a useful transition to the third section of the chapter, which identifies what alternative courses of action could have been taken and why they weren't. The concluding section briefly draws out several implications and lessons from the earlier analysis. To be sure, the policy discussions on financial institutions and markets in the 1990s are likely to be focused on a different set of questions than those that preoccupied policymakers' attention in the 1980s; one key difference is that policymakers will be paying more attention to international issues in this decade than they did in the one just past. However, precisely for this reason, there should be opportunities in the 1990s for breaking many of the policy stalemates of the 1980s.

8.1 Background

Depository institutions and securities markets carry out the same important function in a market economy: both channel the surplus funds of savers to deficit-spending consumers and to firms that have investment opportunities in excess of their retained earnings. Commercial banks and thrift institutions accomplish intermediation directly by collecting deposits, some used for transactional purposes (checking accounts) and most for savings, and lending the funds to businesses and individuals. By exploiting economies of scale in evaluating and monitoring borrowers, both types of depositories direct funds between large classes of savers and borrowers far more cheaply than if these individuals and firms attempted to find each other themselves.

Securities markets perform intermediation services more cheaply still, but, until recently, only for commercial borrowers of sufficient size and creditworthiness to be able to sell their debt and equity on the open market. Unlike individual loans provided by depositories, securities are commodities and can be readily traded as such. Securities markets, whether organized exchanges or informal trading networks, provide the settings that allow these trades to take place. Accordingly, they make it possible not only for individuals to participate directly in the intermediation process but also for other financial institutions—insurance companies, pension funds, and mutual funds—to purchase and sell securities and thus to perform intermediation services as well.

As the nation entered the 1980s, most of the regulatory apparatus that governed the depository and securities industries was inherited, and little changed, from the 1930s. Depression-era legislation created the Securities and Exchange Commission (SEC), registration requirements for securities dealers, and regular reporting and disclosure requirements for companies whose stocks and bonds are traded in public markets. In 1940, Congress added legislation governing the operation of investment companies, now commonly known as mutual funds. The securities acts were designed principally to ensure that buyers and sellers of securities are fully informed of all relevant information at the time they make their trades.

The Depression-era legislation for depository institutions had different purposes. At the time, of course, the principal national concern was restoring confidence in a banking system that experienced approximately 9,000 failures between 1930 and 1933 and a series of deposit runs. Perhaps the most important response was the creation of federal deposit insurance, first for bank accounts up to $2,500 (1933), then for thrift accounts up to $5,000 (in 1934, with the ceiling for bank accounts raised at the same time). The deposit insurance ceilings were raised intermittently in succeeding decades, reaching $40,000 by the end of the 1970s. Significantly, there has been no nationwide deposit run since federal insurance was introduced, although, as I discuss below, many experts believe that federal insurance in turn led to a whole new set of problems during the 1980s.

Congress also responded to the banking crisis of the 1930s by segmenting depository institutions from the securities markets and other financial intermediaries. In particular, the Glass-Steagall Act of 1933 separated commercial and investment banking largely in response to allegations at the time that banks had abused their securities powers to cause undue losses to other banks and customers.[1] A little more than two decades later, Congress extended the segmentation of depositories by enacting the Bank Holding Company Act of 1956 (amended in 1970), which limited organizations that own banks to a narrow range of nonbanking activities that are "closely related to banking." Similar provisions were enacted during the 1960s for companies that own more than one thrift institution.[2]

The bank and thrift holding company restrictions have been justified, in part, as a means for insulating depositories and the federal insurance funds from nonbanking risks. But fear of "bigness" has also played a significant role in bank and thrift regulation. Congress traditionally has not been willing to permit the development of Japanese-style *zaibatsu* bank/nonbank conglomerates in the United States. Quite the contrary, Congress has endeavored to protect small depository institutions from competitors within the same industry. In legislation enacted before and since the Depression, Congress has prohibited depositories and their parent companies from crossing state lines without the permission of individual states (permission that no state granted until the 1970s). The Banking Act of 1933 (of which the Glass-Steagall Act was a part) also established ceilings (Regulation Q) on interest rates payable on bank deposits (which were extended to thrift deposits in 1966) largely in order to limit competition among banks. Indeed, although deposit insurance was justified primarily as a means of protecting the banking system from runs, it was strongly advocated by small banks in particular, which saw insurance as a crucial vehicle for preventing their depositors from migrating to larger banks.

Depository institutions have been segmented not only from other types of financial intermediaries but also from each other. Different charters and regulatory systems for commercial banks and thrifts, for example, have traditionally separated bank lending for businesses, and more recently for consumers, from thrift lending for residential mortgages. Although the different types of depositories responded to very different needs and thus arose in response to market developments (Litan 1987b, 12–19), legislation dating from the Depression has encouraged the development of thrift institutions in particular (through tax incentives and a government-backed secondary market for mortgage loans, among other things) in order to promote home ownership.

1. Recent scholarship, however, has discredited the validity of many of the allegations about bank abuses in the securities business before the Glass-Steagall Act was passed (see Benston 1990a).

2. Unitary thrift holding companies—those owning a single thrift—have been exempt from the affiliation limitations applicable to multithrift holding companies. During the 1980s, a number of nonfinancial firms exploited this "loophole" to acquire thrifts.

Although it was not free from difficulty, by at least several measures the Depression-era financial structure worked reasonably well through the 1970s. The bank and thrift failure rate fell dramatically after deposit insurance was introduced. For example, from the end of World War II through 1979, rarely did more than 10 banks rail in any single year. Indeed, as shown in table 8.1, even during the volatile 1970s, marked especially by the 1973 and 1979 "oil price shocks," the bank and thrift failure rate was remarkably low.

By other measures, the securities markets were also performing as could reasonably be expected. Despite many ups and downs in price movements, the nation's securities markets steadily became more efficient in processing transactions. Between 1960 and 1979, for example, annual stock trading volume on the New York Stock Exchange (NYSE) jumped more than tenfold, from 766 million to 8.3 billion. Similarly, a whole new over-the-counter market linked by computers—NASDAQ—developed to handle trades in companies

Table 8.1 Financial Health of U.S. Depository Institutions, 1970–89

	Thrift Institutions			Commercial Banks			Economywide Data	
Year	Failures[a]	Failures/ 1,000	ROE	Failures	Failures/ 1,000	ROE	Failures/ 1,000	ROE Manufacturing
1970	10	2.2	N.A.	8	.6	N.A.	4.4	9.3
1971	4	.9	N.A.	6	.4	N.A.	4.2	9.7
1972	2	.5	N.A.	3	.2	N.A.	3.8	10.6
1973	5	1.2	N.A.	6	.4	N.A.	3.6	12.8
1974	1	.2	N.A.	4	.3	N.A.	3.8	14.9
1975	11	2.2	7.3	14	1.0	11.3	4.3	11.6
1976	12	2.5	10.3	17	1.2	11.0	3.5	13.9
1977	10	2.1	13.1	6	.4	11.5	2.8	14.2
1978	4	.9	13.9	7	.5	13.1	2.4	15.0
1979	4	.9	11.4	10	.7	14.3	2.8	16.4
1980	32	6.9	2.5	10	.7	13.7	4.2	13.9
1981	82	19.1	−16.6	10	.7	13.1	6.1	13.6
1982	247	64.6	−16.7	42	2.9	12.1	8.9	9.2
1983	70	20.0	6.1	48	3.3	10.7	11.0	10.6
1984	36	10.6	2.9	79	5.5	10.5	10.7	12.5
1985	64	20.0	7.9	120	8.3	11.2	11.5	10.1
1986	80	26.0	.2	138	9.7	10.0	12.0	9.5
1987	77	26.5	−16.8	184	13.4	1.5	10.2	12.8
1988	233	92.2	−24.3	200	15.2	13.4	9.8	16.1
1989	39[b]	122.3	N.A.	207	15.5	N.A.	N.A.	N.A.

Sources: Kane (1989); *Statistical Abstract of the United States* (various years); *Economic Report of the President* (1990); Office of Thrift Supervision; Resolution Trust Corporation; FDIC (1988).

Note: ROE = return on equity. N.A. = not available.

[a]Only those failures resolved by the FSLIC or RTC. Data for the years 1970–74 and 1989 provided by the Office for Thrift Supervision; 1976–88 data taken from Kane (1989).

[b]Includes only failed thrifts resolved during the year. At year end 1989, another 281 thrifts were in conservatorship, and hundreds more were waiting to be placed in conservatorship.

Table 8.2 Share of Financial Assets Held by Major Intermediaries

Intermediary	1946	1950	1960	1970	1980	1985	1989
Commercial banks	57.3	51.2	38.2	38.6	36.8	33.3	30.9
Savings and loans	4.3	5.7	11.8	12.8	15.2	14.9	11.8
Mutual savings banks	8.0	7.7	6.9	5.9	4.3	3.1	2.8
Credit unions	.2	.3	1.1	1.3	1.7	1.9	2.1
Life insurance	20.3	21.4	19.4	15.0	11.5	11.1	12.1
Private pension	1.5	2.4	6.4	8.4	11.7	11.9	12.0
State and local govt. pension	1.2	1.7	3.3	4.5	4.9	5.7	7.0
Other insurance	3.0	4.0	4.4	3.7	4.3	4.1	4.7
Finance companies	2.1	3.2	4.6	4.8	5.0	5.0	5.0
Mutual funds	.6	1.1	2.9	3.5	3.4	6.8	9.4
Other	1.5	1.4	1.1	1.5	1.2	2.3	2.3

Source: Board of Governors of the Federal Reserve System, flow of funds accounts

not listed on either the NYSE or other major stock exchanges. Trading in the securities markets was given a strong boost in the early and mid-1970s when, after vigorous prodding by the Justice Department's antitrust division, the SEC and the Congress dismantled the system of fixed brokerage commissions established by the NYSE. This step was also encouraged by the growing importance of institutional investors and traders in the markets who were gradually deserting the NYSE and instead trading directly among themselves or on regional exchanges. In turn, the growth in the securities markets facilitated the rise of certain nonbank financial intermediaries—notably pension funds, finance companies, and mutual funds—which, as table 8.2 demonstrates, substantially increased their share of the nation's financial assets.

Nevertheless, several cracks in the post-Depression financial system had already become evident by the 1970s, if not before, and were to become much more visible during the 1980s. Dating from the 1950s, the FDIC consistently arranged mergers of failed banks instead of paying off their depositors and thus effectively guaranteed in full deposit accounts above the statutory insurance ceilings. This policy became explicit when the FDIC protected all deposits at Franklin National Bank in 1974, the largest bank failure up to that time since World War II. By stretching the federal safety net on an ad hoc basis in response to various crises, bank regulators undermined depositor discipline against excessive risk taking by banks and thrifts, a development the consequences of which would show up vividly in the 1980s.[3]

By the end of the 1970s, market developments also were adding strain to the compartmentalized financial structure (Pierce 1991). Advances in computer

3. For an excellent history of the FDIC's response to bank crises in the postwar period, see Sprague (1985).

technology in the 1960s and 1970s permitted competition to develop in the core depository and lending services provided by banks and thrifts, which, as discussed later, had powerful effects in the following decade. For example, the new processing technologies made it possible for money market mutual funds to offer individuals limited transaction services on accounts yielding higher rates of interest than the Regulation Q interest ceilings that applied to bank and thrift deposits. In response, during the 1970s, regulators began lifting the interest ceilings for large depositors, a trend that was to accelerate in the 1980s.

Similarly, on the lending side, computer technology facilitated the growth of the commercial paper market, which highly rated corporations used to raise funds directly rather than borrowing from banks. Ultimately more significant, advances in data processing made it possible for quasi-governmental financing agencies and private investment banks to "securitize" mortgage instruments by packaging them into bundles and then to distribute units of the resulting trusts to individual investors, nonbank financial institutions (pension funds, mutual funds, and insurance companies), as well as to depositories. By turning formerly illiquid loans into tradable commodities, the securitization process was gradually undermining the economic rationale for depository institutions as specialized evaluators and monitors of credit; markets instead were performing that role.[4]

Finally, the 1970s were the last years when it could be safely said that U.S. financial institutions and markets were dominant in global financial markets. As the decade ended, corporate shares traded on U.S. stock markets still accounted for over half of market capitalization of shares traded on worldwide stock markets; European and Japanese stock markets were far behind (OTA 1990, 25). Similarly, although U.S. banks had been steadily losing ground in the international size rankings, table 8.3 illustrates that, by the end of the 1970s, the United States still had two of the world's top ten banks and six of the top fifty. Most of these larger banks were active competitors in foreign markets.

All this was to change in the 1980s. That the federal safety net extended to all bank and thrift deposits—at least those at the largest depositories—was to be made even more explicit. The franchise values of commercial bank and thrift charters were to be much further diminished by nonbank competition, securitization in particular. More important, solvency problems among depositories, especially among thrifts, were to become more severe than at any time since the Depression and the costs imposed on the federal government of resolving them were to reach unparalleled heights. U.S. security markets would be further revolutionized by new markets and instruments. And U.S. financial institutions and markets would find themselves under much greater competitive pressure from foreign institutions both at home and abroad.

4. The impact of securitization on the thrift and banking industries is also discussed in greater detail below.

Table 8.3 Nationality of the World's Largest Banks by Deposit Size

	Number of Banks in Top 10					Number of Banks in Top 50				
Country	1956	1960	1970	1979	1988	1956	1960	1970	1979	1988
United States	5	6	4	2	0	25	19	13	6	2
United Kingdom	3	3	2	2	0	7	5	4	4	4
Canada	2	1	1	0	0	6	5	5	4	1
France	0	0	1	4	0	3	3	3	4	4
Germany	0	0	1	2	0	0	3	4	7	7
Italy	0	0	1	0	0	3	5	4	2	1
Japan					10	3	8	11	16	25
Australia						1	1	1	0	0
Netherlands						0	0	1	3	2
Switzerland						0	0	3	3	3
Belgium						0	0	0	1	0
Other						2	1	1	0	1

Source: Benston (1990b).

8.2 Key Events and Policies of the 1980s

The reaction of policymakers to the varied events of the 1980s was highly uneven. As in earlier periods, federal authorities tended to move only when a crisis forced them to do so. This was not the case, however, with certain state legislatures, which reacted (perhaps without knowing so) to basic structural developments. Accordingly, in reviewing the key financial events and policies of the 1980s, it is essential to distinguish the crises from the important, but less well-recognized, structural trends.

8.2.1 The Crises

All three segments of the U.S. financial system reviewed in this chapter—thrift institutions, banks, and securities markets—experienced severe shocks during the 1980s. Table 8.4 lists the key crises in chronological order, together with a brief description of the policy responses. As highlighted in the table, Congress reacted only to certain crises; regulators (principally the Federal Reserve) handled the others. In all cases, however, the immediate responses have had significant longer-run consequences.

Thrifts

The three crises that rocked the thrift industry during the 1980s had the most significant immediate (if not permanent) economic impact and thus deserve the most attention.

The initial thrift crisis occurred as the decade opened. Its origins are well known and stem from the Federal Reserve's vigorous program of monetary restraint launched in late 1979 to attack double-digit inflation. The Fed's efforts

Table 8.4 Financial Crisis of the 1980s

Year	Crisis	Response
1980–82	Market value insolvency among thrifts	Deposit interest deregulation; broader thrift powers; higher deposit insurance ceiling; relaxed supervision
1982	LDC debt crisis	Fed-coordinated new bank lending
1984	Continental Illinois failure	Regulatory protection of uninsured depositors ("too big to fail")
1985	Thrift deposit runs in Ohio and Maryland	Freezing of accounts; Fed discount window lending
1987	Stock market crash	Fed discount window lending
1988–89	Second stage of thrift disaster	Federal cleanup effort launched; tighter capital standards
1989	A lesser stock market decline	No response
1989	Collapse of junk bond market	No response

in the short run produced some of the highest nominal interest rates in the nation's history. By March 1980, short-term Treasury bills were yielding more than 15 percent, providing depositors with strong incentives to move funds from their regulated bank and thrift accounts paying interest no higher than 5.5 percent to money market mutual funds (MMFs), which invested principally in U.S. government obligations.[5] With little chance that interest rates would soon fall dramatically, the nation's banks and thrifts faced a dangerous threat to the stability of their deposit bases that both the administration and the Congress clearly recognized.

But one obvious solution—instant and complete deregulation of deposit interest rate ceilings—also posed a danger of its own, especially for thrift institutions whose assets consisted primarily of fixed-rate, long-term mortgages but whose liabilities could be repriced within a much shorter period. For these institutions, deregulation of deposit interest rates when market rates were well above the prevailing ceilings would increase funding costs much more rapidly than earnings from investments. Since thrifts were locked into earning low-interest rates on their existing stock of mortgage loans, deregulation could expose them to many years of losses until they acquired a sufficient volume of new, higher-yielding mortgage loans.[6]

Congress and the administration attempted in 1980 to avoid both dangers—deposit runs under the current regulatory regime and continuing losses under

5. In fact, assets held in MMFs jumped from just $12 billion in January 1979 to $61 billion in March 1980 (*Economic Report of the President,* 1981 and 1982).

6. Of course, this would not have occurred had Congress deregulated deposit interest rates in the early 1970s when urged to do so by the Hunt Commission. If deregulation had been implemented much earlier, thrifts would have had much higher-yielding mortgages in their portfolios in the early 1980s when interest rates soared.

deregulation—by compromising. In March 1980, the president signed into law the Depository Institutions Deregulation and Monetary Control Act (DIDMCA) of 1980, which established a committee to phase out deposit interest ceilings over the next six years. To encourage depositors not to leave their institutions in the interim, and to mollify thrifts concerned about the adverse impact of interest deregulation on their costs of funds, during a conference committee session Congress added provisions increasing the deposit insurance ceiling on thrift and bank accounts from $40,000 to $100,000.[7] In addition, to provide other revenue sources for thrifts beyond fixed-rate mortgages, the DIDMCA also permitted federally chartered thrifts to invest a limited portion of their assets in consumer loans.[8]

Federal thrift regulators also took advantage of several other features of DIDMCA to enhance the economic viability of the thrift industry in an environment of partial deposit interest deregulation. In 1981, the Federal Home Loan Bank Board authorized federal thrifts to offer the equivalent of interest-paying checking accounts, or negotiable-order-of-withdrawal (NOW) accounts, which by then a number of states had already authorized for their thrifts. In an effort to reduce the industry's exposure to wide swings in interest rates, the Board permitted federally chartered thrifts to extend adjustable-rate mortgages.

Although well intentioned, these various measures could not stop either the hemorrhaging of deposits or red ink from the thrift industry, given continued double-digit market interest rates. Thus, with only modest deregulation of interest rates on larger deposit accounts, thrifts continued to lose smaller deposits to money market funds; in 1981 and 1982, deposit withdrawals at thrifts exceeded new deposits by $32 billion (Brumbaugh 1988, 39).[9] At the same time, by paying higher interest rates to keep their large-dollar deregulated deposits, most thrifts had no choice but to suffer continued operating losses. As shown in table 5, 85 percent of all thrifts operating in 1981 lost money; that figure fell to "only" 68 percent in 1982.

As thrift deposit outflows and operating losses mounted, Congress acted again.[10] In December 1982, Congress enacted the Garn–St Germain Deposi-

7. Although the increase in the insurance ceiling has since been criticized as an example of "midnight" congressional decision making, according to one knowledgeable source who was present at the critical conference committee session, the FDIC's authorized representative reported that the FDIC's acting chairman, Irvine Sprague, did not object to the increase during a telephone conversation at the time. Sprague has not since explicitly refuted these events, but he also claims to have communicated that his agency had consistently been against the $100,000 figure (Sprague 1990, 19).

8. The DIDMCA had many other provisions. Among them were provisions extending reserve requirements to banks and thrifts that were not formal members of the Federal Reserve System.

9. Total deposits at thrifts nevertheless rose, owing solely to interest credited on accounts that remained in thrifts (Brumbaugh 1988, 40).

10. By the end of 1982, assets at the MMFs had grown to more than $200 billion—nearly ten times larger than just three years before—and threatened to draw still more deposits from both thrifts and banks.

Table 8.5 **Profitability of the Thrift Industry, 1980–89**

	Number as a % of All Thrifts	Assets as a % of All Thrift Assets
1978	97.3	98.7
1979	93.5	95.9
1980	64.4	67.0
1981	15.2	8.7
1982	32.2	39.4
1983	64.8	66.8
1984	72.1	73.3
1985	78.8	84.9
1986	73.0	72.4
1987	64.8	66.2
1988	69.7	68.2
1989	63.0	60.1

Source: White (1991).

tory Institutions Act, which accelerated deposit interest deregulation by authorizing banks and thrifts to offer deposit instruments directly competitive with the MMFs: "money market deposit accounts" with minimum balances of only $2,500. The act also enhanced thrifts' asset diversification authority by increasing the asset limit for consumer loans and by allowing federally chartered thrifts to extend commercial real estate mortgages as well as ordinary business loans.

Regulators moved as well, principally by weakening the financial requirements for new entrants and existing owners. This process began in 1980 when the Board lowered the minimum capital requirement for thrifts from 5 percent of assets to 4 percent, a step that was authorized by DIDMCA. The Board effectively diluted capital requirements much further the following year by adopting various changes in thrift accounting for regulatory purposes to make thrifts look healthier than they appeared under "generally accepted accounting principles" (GAAP).[11]

The seemingly technical differences in accounting treatment had very significant impacts. As shown in table 8.6, the industry's capital-to-asset ratio during the early 1980s (and later) was consistently higher under the Board's "regulatory accounting principles" (RAP) than it was under GAAP. However, even GAAP overstated the industry's true financial condition. If goodwill and other intangible assets were properly excluded from net worth, the industry barely had any "tangible" capital. And, when the industry's assets and liabilities were valued at their *market value,* the industry was clearly insolvent—by

11. Among other things, thrifts were allowed to spread their losses when they sold low interest-bearing mortgages over the remaining lives of those mortgages; to book as income large up-front fees for originating new mortgages; and to count as capital for regulatory purposes the "net worth certificates" that the Board issued to many thrifts in exchange for offsetting promissory notes.

Table 8.6 **Thrift Capital-to-Asset Ratios under Alternative Accounting Measures, 1980–86**

Year	RAP Net Worth as a % of Total Assets	GAAP Net Worth as a % of Total Assets*	Tangible Net Worth as a % of Total Assets	Market-Value Net Worth as a % of Total Assets
1980	5.26	5.26	5.23	−12.47
1981	4.27	4.15	3.91	−17.32
1982	3.69	2.95	.54	−12.03
1983	4.02	3.14	.47	−5.64
1984	3.80	2.86	.41	−2.74
1985	4.36	3.15	.81	N.A.
1986	4.56	3.41	1.33	N.A.

Source: Brumbaugh (1988, 50).
Note: N.A. = not available.

more than $100 billion, even according to the chairman of the Bank Board at the time (Pratt 1989; see also Carron 1982b).

Why would regulators deliberately go to such lengths in effect to hide and ignore the financial condition of the institutions they supervised? One important answer lies in the limited resources of the thrift insurance fund, the Federal Savings and Loan Insurance Corporation (FSLIC). As illustrated in table 8.7, with less than $7 billion in reserves in the early 1980s, the FSLIC could close only a relative handful of the insolvent thrifts, which it in fact did (see table 8.1 above). However, as table 8.8 indicates, the number of RAP-insolvent thrifts, and the assets that they controlled, was substantially less than the number of insolvent institutions measured on a more realistic tangible capital basis.

Regulators had another reason for adopting and encouraging the use of more liberal thrift accounting methods. Even as market interest rates headed toward record levels, it was widely expected among policymakers and legislators that the high-interest environment would be temporary: rates eventually would come down and thus restore the thrifts to their pre-1980 healthy condition. On this view, RAP could be (and was) justified as a temporary device to tide the industry over until it (inevitably) recovered.

The prevailing optimism was as convenient as it was necessary. Faced with steeply rising federal deficits at the time, neither the Reagan administration nor the Congress was willing to authorize the more than $100 billion that would then have been required to close all thrifts insolvent on a market-value basis. Not only would such a radical step have been extraordinarily expensive, but it almost certainly would have been politically infeasible, given the political power at the time of the thrift industry and its allies (primarily the housing industry) in Congress. Clearly, if the industry could be restored to health sim-

Table 8.7 Reserves of FSLIC and FDIC (Millions of Dollars and Percents)

	FSLIC		FDIC	
Year	Reserves	% of Insured Deposits	Reserves	% of Insured Deposits
1970	2,903	2.05	4,380	1.25
1971	2,987	1.77	4,740	1.27
1972	3,142	1.56	5,159	1.23
1973	3,454	1.56	5,615	1.21
1974	3,791	1.60	6,124	1.18
1975	4,120	1.48	6,716	1.18
1976	4,480	1.37	7,269	1.16
1977	4,873	1.29	7,993	1.15
1978	5,328	1.26	8,796	1.16
1979	5,848	1.27	9,793	1.21
1980	6,462	1.28	11,020	1.16
1981	6,156	1.18	12,246	1.24
1982	6,307	1.13	13,771	1.21
1983	6,425	.96	15,429	1.22
1984	5,600	.71	16,529	1.19
1985	4,600	.54	17,957	1.19
1986	−6,300	−.71	18,253	1.12
1987	−13,700	−1.47	18,302	1.10
1988	N.A.	N.A.	14,061	.80

Sources: Kane (1989); FDIC (1988).
Note: N.A. = not available.

Table 8.8 Numbers and Assets of Insolvent and Weakly Capitalized Thrifts, 1981–87

	RAP-Insolvent Thrifts[a]		Tangible-Insolvent Thrifts[b]		Thrifts with Tangible Capital below 3% of Assets	
	No.	Assets ($billion)	No.	Assets ($billion)	No.	Assets ($billion)
1981	33	3	112	29	702	163
1982	71	13	415	220	783	217
1983	48	13	515	234	879	273
1984	71	15	695	336	853	321
1985	130	26	705	335	726	437
1986	255	66	672	324	581	335
1987	351	99	672	336	471	339

Sources: White (1991) and Barth and Bartholomew (1990), both based on Federal Home Loan Bank Board (FHLBB) data.
[a]Thrifts that were insolvent on the basis of regulatory accounting principles (RAP).
[b]Thrifts that were solvent on a RAP basis but insolvent on a tangible net worth basis.

ply with a drop in interest rates and an end to the economic downturn, why then shut most of it down? Moreover, Congress took action in 1980 and 1982 to facilitate the industry's recovery by broadening its investment powers. The administration was so optimistic that the industry would indeed bounce back that it felt comfortable reducing the examination and supervisory staff at the Bank Board and thus the frequency of thrift examinations, as shown in table 8.9.

In fact, some part of the optimistic outlook for the industry proved correct. Beginning in 1983, the economy started to grow again, and interest rates fell markedly. As expected (and hoped), a good portion of the industry returned to profitability, and the industry's capital improved by all measures (table 8.6 above).

In 1985, however, the industry was jolted again by its second crisis of the 1980s: the deposit runs on state-chartered thrifts in Ohio and Maryland following the failures of Home State Savings (Ohio) and Old Court Savings and Loan (Maryland). The runs affected only the thrifts in these states that were *not* federally insured but instead insured by state-sponsored funds. The runs were stopped in both states by a combination of actions: state-imposed limits on depositor withdrawals coupled with discount window lending by the Federal Reserve to solvent thrifts with liquidity problems. For these reasons, Congress saw no need to get involved.

Still, outside Maryland and Ohio, substantial troubles remained. As reflected in table 8.8 above, the decline in interest rates did not cure the tangible capital insolvency of hundreds of thrifts that collectively held more than $300 billion in assets. In addition, the table indicates that hundreds more institutions with even more assets were thinly capitalized. The owners and managers of both classes of institutions had strong incentives to take risks at the expense of the FSLIC by gambling with federally insured funds; if their strategies were wrong, the owners and managers had little or nothing to lose (the FSLIC would

Table 8.9 **FSLIC-Insured Thrift Examinations and Examination Resources, 1980–84**

	Examinations and Supervision Staff	Examinations	No. of FSLIC-Insured Thrifts	Thrift Industry Assets[a]	Examinations per Thrift	Examinations per Billion Dollars of Assets
1980	1,308	3,210	3,993	593.8	0.80	5.41
1981	1,385	3,171	3,751	639.8	0.85	4.96
1982	1,379	2,800	3,287	686.2	0.85	4.08
1983	1,361	2,131	3,146	813.8	0.68	2.62
1984[b]	1,337	2,347	3,136	976.9	0.75	2.40

Sources: Barth and Bradley (1989) and Barth, Bartholomew, and Bradley (1989); both based on Federal Home Loan Bank Board (FHLBB) data.

[a]In billions of dollars.

[b]Includes special, limited-scope examinations.

bear all remaining losses); but, if they were right, they (and not the FSLIC) would reap all the gains.[12] Various experts inside and outside government called attention to the effective insolvency of the FSLIC and its exposure to still additional losses if insolvent thrifts then open were not closed quickly, but their warnings went unheeded.[13] The prevailing attitude throughout Congress and most of the administration was that the industry's health would continue to improve with declining interest rates and a growing economy.

By 1986, however, the administration recognized that the FSLIC did not have sufficient resources to close all insolvent thrifts (table 8.7 above). In an effort to replenish the FSLIC's reserves, the administration requested Congress to authorize a capital "infusion" of $15 billion, financed "off budget" with bonds issued by a new agency to be created solely for that purpose. In fact, the "infusion" was primarily a borrowing by the FSLIC against future premium revenues. The administration's proposal was opposed by many thrift institutions and by various elected officials who argued that the money was both unnecessary and likely to be wasted by the FSLIC. Eventually, in 1987, Congress agreed on a lower recapitalization figure of $10.8 billion as part of broader banking legislation.

The ink on the 1987 funding legislation was barely dry when outside analysts warned that much more money would be necessary fully to resolve the thrift problem.[14] As the year ended and through 1988, the cost estimates moved upward. By summer of 1988, the chairman of the Bank Board, M. Danny Wall, conceded to Congress that almost $40 billion over a ten-year period would be required, a figure that by then was far below private estimates. Yet, despite the mounting cost projections, the thrift issue was barely mentioned during the 1988 presidential campaign, largely because it was a political liability for both parties.[15]

The third thrift crisis of the 1980s emerged after the 1988 election and was more political than economic. Although roughly one-third of the industry then was unprofitable (table 8.5 above), there was no imminent danger of a deposit run. Nevertheless, this last crisis was precipitated after the election by the Fed-

12. This "moral hazard" in federal deposit insurance has been so frequently noted by so many economists that it is inappropriate to single out any group of scholars who have pointed it out.

13. Economists at the Bank Board, e.g., pointed out in internal analyses in 1985 that the FSLIC was effectively insolvent. The chairman of the Bank Board, Edwin Gray, made the same point to Congress in the same year.

14. For example, in their thorough analysis of the situation through 1986, Brumbaugh and Carron (1987) estimated that $30 billion would have been required to close all insolvent thrifts. In addition, Bert Ely (a well-known independent financial consultant) repeatedly issued cost estimates in the mid to late 1980s indicating that the FSLIC had insufficient resources to rid the thrift industry of all its insolvent institutions.

15. That the problem could have grown so large during a Republican administration was clearly a political liability for the party's standard bearer, George Bush. The Democrats, however, could be blamed for helping lower the administration's original $15 billion request for additional funding for the FSLIC. In addition, the speaker of the House, Jim Wright, was under heavy attack for, among other things, his close involvement with several executives and owners of insolvent thrifts.

eral Home Loan Bank Board, which disposed of many insolvent thrifts by providing purchasers with extensive guarantees against future losses. The guarantees enabled the Board to complete these transactions without cash, of which the FSLIC had very little.[16] In part, the Board rushed through its late 1988 transactions because certain tax benefits to acquirers of thrifts were scheduled to expire at the end of that year, and the presidential elections were over.

Whether or not the rush of deals was so intended, it certainly had the effect of provoking both the next administration and Congress to address the thrift insolvency problems in a much more comprehensive and systematic fashion. As its first order of business, the incoming Bush administration proposed a far-reaching plan to close down approximately 500 clearly insolvent thrifts over three years and another 200 marginal thrifts through 1999. It asked Congress for $50 billion, again in off-budget financing, to carry out the job; the remaining $24 billion in estimated cleanup costs were to be paid by the thrift industry in the form of higher deposit insurance premiums (the plan proposed that banks, too, would pay higher premiums to cover the rising cost of bank failures). In addition, the plan proposed that a new agency (the Resolution Trust Corporation, or RTC) be created to dispose of the insolvent thrifts and their assets; that capital standards for thrifts be raised to the equivalent of bank standards and that thrifts be required to return to their original mission (housing finance) by investing at least 70 percent (up from 60 percent) to their assets in mortgage and consumer loans; and that the federal supervisory and regulatory structure for the industry be brought inside the executive branch (the Treasury Department) rather than remain in the independent Bank Board. The administration's plan left for the future—the 1990s—the controversial questions surrounding the future separation of the thrift and bank industries (and the regulatory apparatus that governs them) as well as the redesign of the deposit insurance system for both banks and thrifts. In August 1989, the Congress approved most of the administration's original proposal in the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA).

Since FIRREA's passage, the estimated costs of resolving the third thrift crisis of the 1980s has risen substantially. In May 1990, the Treasury Department revised upward the total cost of the post-FIRREA thrift closures and assisted sales from the original present discounted cost of $74 billion to a range of $90–$130 billion.[17] Both the Congressional Budget Office and the General Accounting Office have projected even higher costs.

16. In all, the Board disposed of 205 thrifts—179 by funding acquisitions and twenty-six through liquidations—in 1988, estimating at the time that the eventual present discounted cost to the federal government (including another eighteen "stabilizations") would be $38.6 billion.

17. The FDIC has since estimated that the present discounted cost of the pre-1989 guarantees on thrift disposals will exceed $50 billion, up from the $38.6 billion originally estimated by the Bank Board.

Banks

The two major banking crises of the 1980s, fortunately, have proved to be far less costly than the thrift crises, at least thus far. However, unlike the thrift affairs, each banking crisis was viewed at the time as a serious threat to the stability of the entire U.S. financial system.

As shown earlier in table 8.4, the initial bank crisis arose in 1982 when what would later be a regular occurrence throughout the decade, a developing country with major debts to U.S. and other banks—in this case, Mexico—found itself unable to make interest payments on its debt.[18] At the time, the nine "money center" banks in the United States had loans outstanding to Latin American countries in the aggregate almost double their equity capital (Sachs and Huizinga 1987, 558). If Mexico defaulted on its debt, then these banks faced the possibility of defaults by other developing country borrowers as well—a circumstance that could have easily imperiled many, if not all, of the largest U.S. banking organizations.

Federal regulators—principally the Federal Reserve—had to take this threat seriously. At the time, a toppling of one or more major banks in the midst of a recession (even in an expansion) could have threatened the entire banking system if uninsured depositors began to run from many other banks. Even the free market–oriented officials inside the administration eventually grew concerned about such an outcome. In addition, the Federal Reserve no doubt felt some moral obligation to find some solution to the Mexican debt crisis and the threat it imposed to the U.S. banking system because, through much of the 1970s, it had encouraged the banks to recycle the "petrodollars" deposited by oil-exporting nations in U.S. banks to oil-importing countries in the developing world, principally in Latin America.

Initially, the Federal Reserve intervened directly in April 1982 by itself lending dollars to Mexico in a series of currency swaps (dollars for pesos) (Greider 1987, 485–86). By August, however, Mexico's economic situation had deteriorated much further, and the threat of default became immediate. This time the Treasury joined the Fed in developing a larger financing plan to tide Mexico over until it could receive lending support from the International Monetary Fund (conditional on structural economic changes within Mexico to improve its ability to service its debt). Under the new plan, the U.S. government agreed to pay in advance for $2 billion of oil and food sold by Mexico, while the Fed and other major central banks agreed to lend an additional $1.85 billion (Greider 1987, 517–18).

Although the rescue plan devised by the Federal Reserve and the Treasury Department averted the immediate threat posed by the Mexican debt situation

18. For a complete discussion of developing country debt problems in the 1980s, see the chapter by Paul Krugman in this volume.

to the U.S. banking system, Congress was not content to forget the matter. Directly responding to that crisis, in November 1983 Congress enacted the International Lending Supervision Act, which for the first time required the federal bank regulatory agencies to set and enforce minimum capital standards. Two years earlier, the agencies had announced minimum capital guidelines but had done so purely as a matter of discretion, not in response to a specific statutory instruction.

The new standards were not sufficient, however, to prevent the decade's second major banking crisis: the failure of Continental Illinois Bank in 1984. Ranked at the beginning of the 1980s as one of the best-managed banks in the country, Continental ran into difficulties early in the decade when it purchased what proved to be sour energy loans from a then little-known bank in Oklahoma, Penn Square, which failed in 1982. As Continental's loan losses mounted, institutional depositors at the bank—principally other banks from around the world—grew increasingly concerned about the bank's ability to survive and thus to honor in full the uninsured funds deposited with it. In May 1984, these depositors began to run, threatening to bring down what was then the nation's sixth-largest bank with over $40 billion in assets.

Federal bank regulators—the Comptroller, the FDIC, and the Fed—initially attempted to avert the crisis by cajoling other large U.S. banks to provide emergency credit to Continental. But, as with the early attempts to address the Mexican debt crisis, this early effort, too, proved insufficient. By midsummer, the deposit run had worsened and threatened to exhaust the credit extended by Continental's would-be rescuers. Eventually, the FDIC decided to take over Continental and its holding company, extending full guarantees to all the bank's depositors, both insured and uninsured.

The regulators' actions in the Continental crisis explicitly confirmed that, in fact, there were banks in the United States that were "too big to fail" (TBTF)—or, more precisely, too big for the regulators to permit uninsured depositors to lose (Kaufman 1989). Four years later, regulators would demonstrate that banks and even thrift institutions not as large as Continental would also qualify for TBTF status. In each of these cases, uninsured depositors were explicitly protected in full: First Republic Banks of Texas (over $25 billion in assets); MCorp Banks of Texas (approximately $15 billion in assets); and American Savings and Loan of California ($31 billion in assets). As discussed below, TBTF has since become one of the most controversial and troubling of all banking policies adopted in the 1980s.

Securities Markets

Finally, the 1980s were marked by three significant crises in U.S. securities markets, all occurring toward the end of the decade when the economy was in the midst of an economic expansion. For many, the surprising feature of each crisis was that none caused the expansion to end.

The first and most noteworthy securities crisis, of course, was the stock mar-

Table 8.10 Largest One-Day Percentage Stock Market Declines

1. 19 October 1987	−20.39
2. 28 October 1929	−12.34
3. 29 October 1929	−10.16
4. 6 November 1929	−9.92
5. 18 October 1937	−9.27
6. 20 July 1933	−8.88
7. 21 July 1933	−8.70
8. 20 December 1985	−8.52
9. 26 October 1987	−8.28
10. 5 October 1932	−8.20
11. 12 August 1932	−8.02
12. 31 May 1932	−7.84
13. 26 July 1934	−7.83
14. 14 March 1907	−7.59
15. 14 May 1940	−7.47
16. 26 July 1893	−7.39
17. 24 September 1931	−7.29
18. 12 September 1932	−7.18
19. 9 May 1901	−7.02
20. 15 June 1933	−6.97
21. 16 October 1933	−6.78
22. 8 January 1988	−6.76
23. 3 September 1946	−6.73
24. 28 May 1962	−6.68
25. 21 May 1940	−6.64

Source: Schwert (1990).

Note: Based on the Dow Jones Industrial and Railroad Indexes from 1928–62 and 1988–89 and the CRSP value-weighted index of New York Stock Exchange and American Stock Exchange stocks from 1962–87, all including dividends.

ket crash of 19 October 1987, which, as shown in table 8.10, was the largest one-day percentage drop in stock prices since official stock indexes have been computed. In addition, the 508-point drop in the Dow Jones Industrial Average (DJIA) on 19 October was preceded by a decline of roughly 500 points dating from late August 1987. In the two-month period, investors in U.S. stocks lost over $1 trillion.

The October 1987 crash created a crisis for several reasons. Most immediately, the steep decline in stock prices threatened the liquidity, if not the solvency, of any securities firms that were faced with potentially huge losses on securities they held in portfolio, either on their own account or as security for their margin customers, many of whom were unable to meet their margin calls. With securities firms imperiled, major banks began calling in their loans, further drying up liquidity and threatening the clearing of trades. At the larger, macroeconomic level, policymakers obviously were concerned that the crash would seriously damage investor and consumer confidence and thereby trigger a decline in spending sufficient to plunge the economy into recession.

As in the banking crises, the Federal Reserve was the lead agency most able and willing to take action. Fortunately, just weeks before the crash, on the order of its new chairman, Alan Greenspan, the Fed had completed a contingency plan to deal with precisely the events that unfolded in October. Accordingly, the Fed was ready to provide liquidity through open market operations (purchasing Treasury securities, thereby increasing the money supply and reducing short-term market interest rates). In addition, Fed officials reportedly urged leading banks to lend freely to securities firms experiencing liquidity problems; in turn, the Fed reportedly promised open access to its discount window if the banks themselves then had liquidity difficulties (*Wall Street Journal,* 20 November 1987, 1, 23).[19]

The Fed's interventions worked. The stock market quickly bounced back and over the next two years marched steadily upward. By October 1989, the DJIA had returned to its pre–October 1987 level. Although at the time many economists predicted that the crash would significantly reduce GNP growth, that didn't occur. Real GNP advanced at a 6.1 percent annual rate in the fourth quarter of 1987 and continued its upward climb thereafter, which permitted the Fed gradually to withdraw some of the liquidity that it had pumped into the markets immediately after the crash.

Nevertheless, as summarized in table 8.11, the severe market jolt unleashed a torrent of government- and privately sponsored analyses of why it happened and what, if anything, could be done to prevent a recurrence in the future. As illustrated in the table, however, the studies reached no consensus on either the causes or the cures, if any. Much attention was paid in the media and in Congress to the role played by computer program trading strategies and stock index arbitrage, trading techniques that arose in the 1980s with the growth of the financial futures and options markets. Critics of these strategies argued that, precisely because the "derivative" instruments were cheaper to trade than the underlying stocks (primarily because the cash deposits on futures were far lower than the margin requirements for stocks), they fueled the speculative behavior that ultimately led to the crash. Defenders of the derivative markets, principally the futures and options exchanges, argued that the derivatives and the underlying stocks were necessarily linked and that there was no evidence that, although futures and option trading had exploded in volume—indeed, by the late 1980s, future trading volume (in dollar value) exceeded that on the stock market itself—it had enhanced speculation.

Whatever the merits of these respective positions, the various studies did not decide the outcome of this debate. In the end, the only significant actions taken in the wake of the crash were voluntary measures by the NYSE and the Chi-

19. The *Wall Street Journal* account of the crash noted above in the text also suggested that various brokerage firms may have manipulated the Major Market Index (a basket of approximately twenty stocks) on 20 October to induce a stock market rally on that day. However, as reported in table 8.11 below, one of the studies that examined this allegation found no evidence to support it.

Table 8.11 Major Studies of the October 1987 Stock Market Crash

Study	Major Findings/Recommendations
The "Brady" Commission	The crash was caused by external factors (high trade deficit; proposed tax legislation) Recommended that a single regulatory agency be responsible for market regulation; that margin requirements on stocks/futures be coordinated; and that trading be halted during large price drops
Securities and Exchange Commission	Institutional selling the largest direct factor in causing the crash; no evidence of manipulation of the Major Market Index on 20 October Criticized use of "front running" by various brokerage firms Recommended margin requirements on futures to combat liquidity
Commodity Futures Trading Commission	Also found no evidence that Major Market Index had been manipulated; concluded that money managers used portfolio insurance more than index arbitrage
New York Stock Exchange	Recommended that stock index futures be traded on the floor
Chicago Mercantile Exchange	Rejected tighter regulation of trading strategies and or margins
National Association of Securities Dealers	Found that retail investors were net sellers of stock while institutional investors were net buyers
General Accounting Office	Found that crisis was exacerbated by inability of the NYSE computer system to handle orders; recommended increased supervision of the computer sytem
Investment Company Institute	Mutual fund managers were able to meet nearly two-thirds of customer redemption demands during the crisis

cago Mercantile Exchange (the "Merc") to introduce "circuit breakers" when stock or index prices dropped by certain amounts during a trading day.[20] Given the lack of consensus among the studies, coupled with these private initiatives, it is hardly surprising that Congress did not legislate in this area.

Still, the stock market was again to crash at the very end of the decade on 13 October 1989, or almost exactly two years after the October 1987 plunge.

20. The Merc imposed a temporary trading halt during the morning of 24 July 1990 after the DJIA fell by more than 100 points during the first hour of trading; the halt was credited with helping break the price decline. Later that week, the SEC approved a parallel proposal by the NYSE that required all stock index trades to be made on upticks following fifty-point declines in the DJIA.

The second time around, however, the DJIA dropped "only" 191 points, a 6.1 percentage point decline. With the benefit of its successful experience following the October 1987 crash, the Federal Reserve had relatively little trouble reacting to the 1989 episode: it pumped additional reserves into the financial system, which lowered the interest rate on Federal funds (overnight borrowings by banks), and announced during the following week its readiness to provide needed liquidity. Again, the decisive action worked; the market quickly calmed and later resumed its upward climb into 1990.

The final securities market crisis of the 1980s—the collapse of the "junk bond" market—also occurred at roughly the same time, with similarly benign macroeconomic consequences. The rise of the junk bond market, of course, was one of the major success stories of the decade. Pioneered largely by one individual (Michael Milken) and one brokerage house (Drexel Burnham Lambert), this market was created by matching institutional buyers hungry for higher-yielding instruments with noninvestment grade corporate issuers. Although most junk bonds (by dollar volume) were issued in connection with corporate restructurings (leveraged buyouts, other mergers and acquisitions, divestitures, and other restructurings), many were also issued by new companies without a long track record to earn an investment grade ranking from the private rating agencies (Crabbe, Pickering, and Prowse 1990, 596). By the end of 1989, over $200 billion in junk bonds were outstanding, virtually all of which had been issued during the 1980s.

The junk bond market weakened in 1988 when Michael Milken and his (by then former) brokerage firm were indicted for violating various securities laws. In the late summer of 1989, however, several events combined to force the market's collapse—sharp price declines of outstanding bonds and a virtual halt to new issues. The market began to unravel when a number of large, visible issuers of the bonds (Robert Campeau, Southland, and Integrated Resources, to name a few) defaulted. It was then severely shocked with the passage of FIRREA, which included provisions requiring thrift institutions to divest all their junk bond holdings by 1994. Although in the aggregate the thrift industry held only 7 percent of all junk bonds outstanding and nearly 80 percent of thrift investments in these bonds were concentrated in just ten savings institutions (GAO 1988), junk bond investments became one of the visible symbols of excessive risk taking in the thrift industry that many members of Congress believed necessary to attack. Enacted at precisely the time when several junk bond issuers were already in trouble and confidence in the market tenuous, the divestiture provisions (whatever their merits) cast a long shadow over the entire market and propelled it down further.

Ultimately, the junk bond market's fall was so deep that its principal creator, Drexel Burnham, was forced to declare bankruptcy early in 1990. Significantly, in contrast with the rescues of uninsured depositors of major failed banks during the 1980s, neither the Federal Reserve nor the Securities and Exchange Commission lifted a finger to prevent Drexel's demise, which caused barely a ripple in the financial markets when it happened.

Summary

Several themes run through the various financial crises of the 1980s. First, and perhaps most important, none of them led to macroeconomic disaster, largely because of successful crisis intervention by the Federal Reserve, in conjunction with other banking regulators, when necessary.

Second, certain of the interventions had significant longer-run consequences. In particular, by protecting uninsured depositors at large banks out of fear of the destabilizing consequences of large-scale bank runs, the banking authorities removed some of the market discipline against undesirable risk taking by large insured depositories. Much of the debate on financial reform in the 1990s will be aimed (indeed, it already has been) at finding ways to restore some of that discipline, whether by the market or by regulation.

Third, congressional intervention occurred only where it was required or when there was a clear consensus about what needed to be done. The various pieces of thrift legislation were examples of the first type: in each case, regulators or administration officials could not resolve the crisis without legislative authorization (deposit interest and asset deregulation or funds required for resolution of failed thrifts). In the case of the 1983 legislation requiring regulators to set and enforce bank capital standards, the Mexican debt crisis had already passed, but consensus was possible largely because regulators had already voluntarily set out to do the same thing. In areas where there was no consensus among either the expert community or the relevant interest groups—for example, securities market reforms or more the more basic structural financial issues discussed in the next section—it was not surprising that Congress took no action.

Finally, as indicated at the outset of the chapter, much of the financial policymaking in the 1980s was reactive in nature. In the thrift area in particular, the relevant policy-making institutions—the Congress, the executive, and the independent regulator (the Bank Board)—took few, if any, measures that could have mitigated, let alone prevented, the costly crises that eventually developed in the 1980s. The reasons for this inaction will be explored in later sections.

8.2.2 Structural Trends

The various financial crises of the 1980s obscured for policymakers and the public several significant structural developments that are likely to be at the top of the policy agenda in the 1990s. However, for reasons to be spelled out below, these developments attracted much less attention during the 1980s.

Thrifts

Again, it is appropriate to begin with thrift institutions because the fundamental economic forces at work in this industry were perhaps most poorly understood or recognized by policymakers.

Savings institutions developed in the early nineteenth century because no other intermediaries were then willing to originate and hold residential mort-

gage loans. The federal government has since promoted their growth by providing thrifts with special tax benefits and by creating a series of federal agencies to purchase mortgages and thus to generate liquidity for the institutions that originate them.

Beginning in the early 1970s, however, these same agencies—notably the Government National Mortgage Association (Ginnie Mae), the Federal National Mortgage Agency (Fannie Mae), and the Federal Home Loan Mortgage Corporation (Freddie Mac)—embarked on a process that, as suggested earlier, has undermined the economic rationale for and the long-run profitability of the thrift industry. In the jargon of Wall Street, these agencies "securitized" mortgages by pooling them (or providing guarantees on pools arranged by private investment firms) and then issuing securities backed by these pools (formally mortgage trusts). As shown in table 8.12, in just the thirteen years between 1975 and 1988, the volume of mortgage securities grew by more than a factor of forty, reaching nearly $770 billion in 1988, representing more than 35 percent of all outstanding mortgages.

Securitization has had revolutionary consequences for the thrift industry, which through the 1980s were barely appreciated in Congress. By converting formerly illiquid mortgage instruments into liquid securities, the securitization process has substantially increased the demand for mortgage instruments. Now, pension funds, insurance companies, mutual funds, and even commercial

Table 8.12 Securitized Mortgage Investments Outstanding ($billion)

Year	Securitized Residential Mortgages	% Securitized	GNMA Passthroughs	FNMA MBS	FHLMC MBS and PC	Conventional Passthroughs
1975	17.8	3.7	16.2	...	1.6	...
1976	28.4	5.3	25.6	...	2.8	...
1977	49.7	7.9	42.9	...	6.8	...
1978	65.7	8.8	53.0	...	12.0	.7
1979	92.1	10.7	75.8	...	15.3	1.0
1980	112.2	11.7	93.9	...	17.0	1.3
1981	127.9	12.4	105.8	.7	19.9	1.5
1982	178.0	16.6	118.9	14.5	42.9	1.7
1983	246.2	20.7	159.8	25.1	58.0	3.3
1984	290.7	22.1	180.0	36.2	70.9	3.6
1985	372.0	25.3	212.1	55.0	100.5	4.4
1986	537.6	31.2[a]	262.7	97.2	171.4	6.3
1987	684.2	35.2	317.6	140.0	212.6	14.0
1988	768.9	35.4	340.5	178.3	225.0	25.1

Sources: Jaffee and Rosen (1990); *Federal Reserve Bulletin* (October 1989); Board of Governors of the Federal Reserve System, flow of funds accounts.

Note: MBS = mortgage = backed securities. PC = participation certificates.

[a]Values after 1985 are securitized residential mortgages as a percentage of home mortgages owed by nonfinancial sectors.

banks are major holders of mortgage instruments. In turn, the larger demand has lowered mortgage yields, by some estimates by as much as a full percentage point (Rosenthal and Ocampo 1988, 12), from what they would be otherwise.

While this has been good news for consumers, it has been devastating for thrifts. With lower yields available on mortgages, thrifts have had to absorb a reduction in the "spread" that they have been accustomed to earning between their cost of funds and yields on mortgage investments. Indeed, the decline in the spread has been so substantial that, unless a thrift has a stable pool of low-cost deposits or happens to be in a high-growth market where mortgage yields command a premium, it can no longer earn a market rate of return on its capital by primarily holding long-term fixed-rate mortgages (Carron and Brumbaugh 1991)—except by doing what thrifts traditionally did, gambling on interest rates by funding long-term mortgages with short-term deposits (the maturity mismatching that caused the decade's first thrift crisis). While profits may still be available from investing in adjustable-rate mortgages (ARMs), which thus far have not yet been securitized in substantial volumes, eventually the spreads in this line of business will also narrow considerably as ARMs are standardized and securitized.

The message for the thrift industry is hardly pleasant: it has no long-run future in the American financial system. Eventually, currently health thrifts must become banks, or they will steadily join the list of casualties that the government is already trying to bury.

Although the implications of securitization for the future of the thrift industry are widely recognized among policy analysts who specialize in this area, there is little or no evidence that they have thus far been understood in Congress or the administration, for that matter. FIRREA contains contradictory provisions relating to this subject. On the one hand, Congress demonstrated no appreciation for the implications of securitization by requiring thrifts to increase from 60 percent to 70 percent of assets their investments in mortgage and related consumer loans; this measure has only worsened the profitability problem that thrifts already confronted by further limiting their diversification opportunities. On the other hand, FIRREA also permitted thrifts eventually (by 1994) to convert to bank charters and thus to escape the 70 percent "qualified thrift lender" requirement (although, unless they pay a large one-time fee, the converted entities must still pay the higher insurance premiums required of all thrifts).

As the costs of the thrift rescue effort continue to mount, it is increasingly likely that Congress and the administration will reconsider whether to maintain separate bank and thrift charters and regulatory systems. Three factors have prevented a melding of the two industries thus far: the continuing (but weakening) political influence of many savings and loans and the widespread perception that the last thrift crisis of the decade was "caused" by provisions in the Garn–St. Germain Act allowing thrifts into nonmortgage investments. The first

factor is becoming less important as the remaining healthy thrifts realize that the only way that they will be able to survive as depositories is with a bank charter (but without the higher insurance premiums). The second factor should continue to have more lasting influence even if it is misplaced. Although it is clear that insolvent thrifts invested more of their assets in nontraditional investments (White 1991; and Barth and Bradley 1989), they were encouraged to do so by lax enforcement of capital standards, which invited precisely the kind of risk taking with nontraditional investments that later led to higher losses (Brumbaugh, Carron, and Litan 1989). A key question for the 1990s is when policymakers—legislators in particular—will realize what really caused the thrift crises of the 1980s so that they can properly address the devastating implications that securitization is having for the thrift industry as it is presently structured.

Finally, Congress has thus far been reluctant to meld the thrift and bank charters because of a seemingly innocuous, but critically important, distinction between the laws governing bank and thrift holding companies. In brief, the Bank Holding Company (BHC) Act limits the businesses with which any bank can be affiliated (by virtue of its common parent holding company) to those that are "closely related to banking." The Savings and Loan Holding Company Act contains a similar provision for thrift holding companies, but only for those that own *two or more thrifts.* Accordingly, an organization owning only one thrift—such as Sears or the Ford Motor Company—can be engaged in any other activities it desires.

If the distinction between thrift and bank charters were eliminated, how would these unitary thrift holding companies be treated? If thrifts were treated like banks, then clearly the BHC Act would require the conglomerates to divest themselves of any businesses "not closely related to banking." Of course, many other financial enterprises would argue against divestiture and instead for changing the activity restrictions in the BHC Act. They would be opposed by those who believe that mixing "banking" and "commerce" could unwisely stretch the federal safety net to protect nonbanking enterprises.

In the 1990s, it is likely that the questions surrounding the mixing of banking and commerce will be addressed. If they are not, then it will be difficult, if not impossible, to meld the bank and thrift industries together (unless current unitary thrift holding companies are "grandfathered").

Banks

Even less noticed is the fact the securitization is likely to have the same effects on the banking industry as it has had on thrifts. However, for banks, the securitization process started differently.

Beginning in the 1970s, well-rated corporations that previously borrowed from banks found it cheaper and more convenient to issue their own commercial paper (generally backed, however, by a standby bank letter of credit). This process accelerated markedly during the 1980s: commercial paper issued by

nonfinancial companies grew from $28 billion in 1980 to $85 billion in 1988. In addition, the growth of the junk bond market allowed many lesser-rated (or nonrated) companies to raise money more cheaply than by borrowing from banks. The banks, of course, had only themselves to blame for losing their best borrowers to the markets. As a result of mounting loan losses—initially on loans to developing countries but by the end of the decade losses on real estate loans and for highly leveraged transactions—most large banks suffered erosions in their credit ratings, which in turn made it more expensive for them to attract uninsured deposits. When bankers added even a slim spread to their higher cost of funds, they discovered that they could no longer profitably lend to their lowest-risk (and even medium-risk) corporate customers.

The securitization of bank loans will have similar effects on many other banks throughout the system. Although banks traditionally have not been as important sources of residential mortgage finance as thrifts, they nevertheless have suffered the same loss of maturity-matched spreads in mortgages due to securitization as have thrifts. More important for the future, banks are increasingly securitizing their bread-and-butter consumer loans (auto and credit card). It is widely expected that, eventually, they will do the same for many ordinary commercial loans. While individual banks that pioneer in the development and marketing of these securitization techniques will no doubt profit from their efforts, the implications for the future of the banking industry as a whole are disturbing. With spreads reduced on their highest-quality assets, banks will increasingly hold on their balance sheets only their higher-risk, nonliquid loans, posing future risks to the bank insurance fund, if not to the banking system generally.

Indeed, these risks have been mounting throughout the past three decades. Figure 8.1 illustrates that, since 1960, net loan losses have been rising as a percentage of total bank loans outstanding,[21] a trend that is reflected in the rising number and rate of bank failures (see table 8.1 above). Similarly, as illustrated in table 8.13, the composition of bank lending has been shifting away from traditional commercial and industrial loans to real estate loans, which can be especially high risk, as events in Texas in the mid-1980s and at the end of the decade in New England have demonstrated. Finally, the additional risks show up in a dramatic increase during the 1980s in the numbers of "problem banks," or those designated by bank examiners to have two of the poorest bank ratings (of five possible rankings). Although the number of problem banks declined at the end of the decade from a 1987 peak of 1,575, the 1,093 problem banks at the end of 1989 were nearly three times the previous

21. A regression in logarithmic form of the net loan loss ratio against the unemployment rate and a time trend suggests that, over the period 1960–89, the loss ratio has been rising at roughly 6 percent (not percentage points) per year; the ratio also rises by an estimated 79 percent for each percentage point of unemployment. Both coefficient estimates are statistically significant at the 95 percent confidence level; the equation (with a correction for serial correlation) explains 93 percent of the variance of the net loan loss ratio (in logarithmic form) over the period.

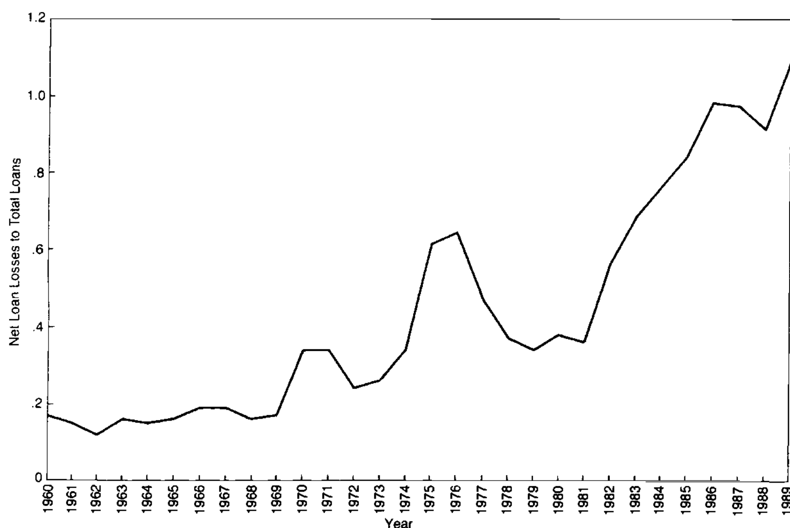

Fig. 8.1 Net loan charge-offs to average total loans (%)
Sources: Statistical Abstract of the United States (various years); FDIC published reports and data base.

Table 8.13 Composition of Commercial Bank Loan Portfolios (% share of total loans)

Type of Loan	1972	1975	1978	1981	1984	1987	1989
Commercial and industrial	35.1	36.6	32.9	36.7	35.8	32.9	31.7
Real estate	25.2	26.0	28.2	29.4	28.5	34.5	37.8
Individual	22.1	20.3	22.0	18.9	19.2	19.3	18.9
Security	4.0	2.6	2.6	2.2	2.6	2.0	1.9
Nonbank financial	5.6	5.6	3.5	3.1	2.4	1.9	1.6
Agricultural	3.7	3.9	3.8	3.4	3.0	1.7	1.5
State and subdivisions	.0	.0	.0	.0	3.5	3.1	2.1
Foreign banks and official institutions	1.4	2.2	3.5	2.6	1.4	.8	.7
Lease financing, receivables	.4	.8	1.0	1.0	1.2	1.4	1.6
Other	2.6	2.1	2.4	2.4	2.4	2.5	2.3

Source: Economic Report of the President (1990).

postwar peak of 385 in 1976. Moreover, at the end of the decade many banks were still thinly capitalized by conventional, historical–cost accounting standards, which the thrift experience teaches can significantly overstate the true condition of financial intermediaries (Brumbaugh and Litan 1990).

Given the implications of securitization for banks as well as thrifts, what could policymakers do? Clearly, one step urged by virtually all academic spe-

cialists in this area is to permit banks to diversify geographically by expanding into all states, not only through holding companies, but also directly through additional branches. The largest banks that could best profit from this consolidation attempted to interest Congress in this reform early in the 1980s, but the move was strongly resisted by the thousands of smaller banks who feared they could not compete with the larger banks, the "money centers" in particular. In the absence of a consensus among the interests most immediately affected, Congress was not inclined to act. In any event, the issue was rendered moot in 1985 when the Supreme Court ratified the constitutionality of the reciprocal interstate banking arrangements legislated by various states in the early 1980s designed to permit large banks outside New York to grow into major regional institutions. By the end of the decade, all but a handful of states would have such arrangements; several were already allowing or scheduled to permit banking organizations from anywhere in the country (including New York) into their states.

Another potential remedy to the rising risks of traditional banking is to permit banks or their holding companies to engage in a broader range of activities. However, given the poor name that thrifts gave "asset diversification" in the 1980s, it was unlikely that Congress would take this approach. Moreover, the efforts by banks to expand into other businesses—notably securities, insurance, and real estate—were vigorously opposed, quite predictably, by firms in those other lines of activity. This was the case even though nonbanking and even nonfinancial) firms had found their way into banking during the 1980s by exploiting several provisions in the laws governing bank and thrift affiliations. One particularly ingenious device used by a variety of firms was to acquire or open a bank that invested its federally insured deposits only in consumer, but not commercial, loans. Such a "nonbank" bank (as it was called) could circumvent the business affiliation (as well as the geographic) restrictions in the Bank Holding Company Act. Congress closed this loophole in 1987 (in the same legislation that authorized an additional $15 billion for the FSLIC).

Nevertheless, during the 1980s and continuing into the 1990s, a number of states have been sympathetic with the banks' arguments and have allowed their state-chartered banks into various activities (principally securities brokerage and underwriting and insurance agencies) that national banks cannot lawfully enjoy (Litan 1987a). In these states, the interest-group gridlock that stalemated congressional action either was not as strong as it was on the federal level (because banking interests in the states had substantially greater political influence than their rivals) or was superseded by state legislators eager to attract additional banking business to their states.

In addition, even federal regulators were sympathetic with the banks. Late in the decade, the Federal Reserve exploited a loophole in the Glass-Steagall Act's requiring separation of commercial and investment banking by authorizing bank holding companies to establish separate securities underwriting affiliates as long as they were not "principally engaged" in otherwise impermissible securities underwriting. By 1989, the Fed allowed these affiliates of banks

to earn up to 10 percent of their revenues from underwriting a wide range of non-Treasury securities. Similarly, the Comptroller fo the Currency authorized national banks themselves to underwrite their own asset-backed securities without going through investment banking companies. All these decisions were upheld by the courts in the face of legal challenges by the securities industry.

Yet another policy option is to increase bank capital requirements, a step that Chairman of the Federal Reserve Alan Greenspan suggested in July 1990 before the Senate Banking Committee (Greenspan 1990). The rationale for rising capital requirements is that, if the banking system is experiencing increasing risk, then it ought to match the additional risk with additional capital. Coming on the heels of the new capital standards negotiated as part of the Basle Accord (discussed below), Greenspan's suggestion not surprisingly has concerned the U.S. banking community, especially the larger banks now increasingly worried about their slipping international competitiveness. Indeed, some have argued that, if the banks have to meet higher capital standards, they will take additional risks to do so, precisely the opposite of what the Fed intends. Whether or not this is correct, the notion that banks meet even higher capital standards than those negotiated as part of the Basle Accord was not on the public policy agenda at any time during the 1980s.

Finally, there is a question whether the deposit insurance system can be redesigned to discourage some of the additional risk taking that banks clearly have evinced. Among the alternatives are to enhance depositor discipline by lowering or restricting current insurance coverage of $100,000 per deposit account or to increase discipline by other interested parties—shareholders, holders of uninsured (subordinated) debt, and regulators. In the Garn–St. Germain Act of 1982, Congress instructed each of the major insurance funds (the FDIC, the FSLIC, and the National Credit Union Association) to report back with suggestions for reforming deposit insurance. Yet, as would be the case with the securities market studies later in the decade, these reports reached no consensus. In addition, in 1984 the problems with Continental Illinois and the weaknesses at several other major banks made many in Congress hesitant to tamper with the deposit insurance system in any way that might destabilize deposits at large banks in particular. Not surprisingly, therefore, Congress took no action.

When the third thrift crisis of the decade struck in 1988–89, Congress again directed that a study of deposit insurance be made (as part of FIRREA), this time by the Treasury Department, which is scheduled to report its recommendations in early 1991. At this writing, it is not clear how Congress will respond, if at all, to the Treasury's study (nor is it known what the Treasury will recommend).

Securities Markets

Although the nation's securities markets also experienced revolutionary changes during the 1980s, there was (and still is) much less agreement within the expert community, let along among policymakers, about the policy impli-

cations of these structural developments than about the market trends affecting the depository industries. Two particular developments deserve mention.

First, and perhaps most important, the 1980s witnessed a growing institutionalization of the securities markets. For example, the share of block trading at the New York Stock Exchange rose from about 29 percent in 1980 to almost 55 percent in 1988 (GAO 1990, 23). As noted earlier, institutionalization was facilitated by the deregulation of fixed brokerage commissions in the 1970s, but it was also fueled by the growth of pension funds and by the increasing desire of individuals to diversify their stock holdings through mutual funds rather than on their own.

As the markets have grown more institutionalized, policymakers have begun to consider how to modify securities regulation and disclosure, most of which rests on the Depression-era premise that individual investors must be protected. Yet regulation, registration, and disclosure requirements can be expensive and raise capital costs for corporations issuing stocks and bonds here. In recognition of these costs and the changes in market participation, the SEC introduced "shelf registration" in the 1980s for corporations that make repeated use of the capital markets, streamlining the previous (often duplicative) registration requirements for individual securities issues. In addition, in 1990 the agency adopted Rule 144a to allow corporate issuers to take advantage of a lower-cost method of raising capital if their securities were issued first only to institutional investors.[22] Such action portends possible two-tiered securities regulation in the future: one set of rules for securities issued to individuals, another for securities bought and traded by institutions.

Second, the institutionalization of the securities markets was a principal driving force behind the explosive growth of the derivatives markets in the 1980s—principally, financial futures and options (on bonds, stocks, and stock and bond indexes).[23] The derivative instruments allowed institutions to trade their large blocks of securities (whether for hedging, arbitrage, or speculation) more cheaply in derivative form than as stocks or bonds directly for two reasons. The derivatives markets offered lower margin requirements. In addition, as their dollar volume surpassed trading volume on the stock exchanges, the futures markets offered deeper and more liquid markets for institutional traders than the markets for the underlying securities (where prices could be significantly moved by large institutional trades).

The rise of the derivatives markets, however, led to one of the most heated financial policy debates of the 1980s: whether financial futures increased the volatility of prices of the underlying securities and/or contributed to excessive speculative behavior. On the first question, there appears little room for argu-

22. Specifically, the rule exempts U.S. and foreign corporations from registration requirements for bonds and stock sold to institutional investors with investment assets of $100 million or more and, in the case of banks and thrift institutions, with net worth of at least $25 million. In addition, the rule permits the resale of these private securities to other qualified institutions at any time.

23. Trading on options on individual stocks had been authorized in the 1970s by the Commodity Futures Trading Commission.

ment. Whether measured by variations within a month or within a day, stock market returns show no trend increase in volatility since the mid-nineteenth century; there are major exceptions, of course, surrounding various market crashes (29 October 1989, 19 October 1987, etc.), but erratic price movements on these occasions have been temporary (Schwert 1990, C-8–C-15). On the second question, however, there is no clear consensus among the experts, and thus, not surprisingly, Congress has not imposed higher margins on futures or consolidated futures regulation within one agency, as the SEC has suggested but the Commodity Futures Trading Commission has strongly opposed.

Globalization and Competitiveness

Finally, and perhaps most important for the 1990s, the U.S. financial system, like the underlying real economy, was shocked in the 1980s by global forces, a trend that has since spawned concerns about the "competitiveness" of U.S. financial institutions and markets.

Table 8.3 above indicates that, by one commonly cited benchmark, size rankings of banks, U.S. depositories slipped badly during the 1980s. By the end of the decade, no U.S. bank ranked in the top ten in the world; only two made the top 50. The banks at the top of the list were all Japanese.

In an age of securitization and financial innovation, however, asset size can be misleading since increasingly the largest profits are made in trading and fees. By profitability, U.S. banks even at the end of the decade looked much better: three of the five most profitable banks in the world (measured by returns on equity, adjusted for differences in capital ratios, inflation, and tax rates) were American and the other two European; Japanese banks ranked far down the list (*Business Week,* 2 July 1990, 80–85).

Still, U.S. bankers could hardly take comfort from the fact that, during the 1980s, they lost significant ground to foreign-based institutions. At home, where the competition is probably more important and certainly more evident, U.S. banks lost market share in commercial lending to foreign banks, dropping from 86 percent of the market in 1980 to 72 percent by 1988 ("Foreign Bank Growth" 1990). And, weakened by their problem loans and shortage of capital, through much of the decade American banks withdrew from foreign markets (*New York Times,* 5 July 1990, A1, D9).

Ironically, the deteriorating competitive position of U.S. banks led to one of the most important policy developments of the 1980s—one with potentially far-reaching implications for future financial regulation. As they grew increasingly concerned about their loss of market share, U.S. banks complained to their regulators that foreign banks, those from Japan in particular, were permitted by their authorities to operate with lower capital ratios and thus were able to leverage their limited capital into faster growth, both in their home markets and in the United States. Accordingly, they urged U.S. regulators to negotiate a common international bank capital requirement among the major industrialized countries.

The banks' request was received favorably by the regulators, not just because of their similar concern about a "level playing field," but also because of their desire to raise capital standards for prudential reasons as well. By 1987, the Federal Reserve joined with its counterparts from ten other major countries in the Basle Capital Accord, which set common "risk-based" capital rules for banks in all these countries. The standards were risk based since different categories of assets were weighted differently.[24] The regulators recognized that the new system failed to account for various other risks (related to portfolio composition, susceptibility to interest rate movements, and liquidity), but they argued that the new common standards were still better than the previous dissimilar rules in different countries. At this writing, the major central banks are working to refine the risk standards to account for these additional risk factors.

Securities markets around the world also grew more globalized during the 1980s, and simultaneously the U.S. markets became less dominant. For example, by the end of the decade, the share of worldwide market capitalization represented by U.S. corporations had fallen from more than 50 percent in 1980 to below 30 percent in 1988; Japanese stocks, in contrast, had vaulted into first place, with 45 percent (Hale 1990, 154).[25] Although most stocks are still traded only in their country of origin, the shares of foreign stocks traded on the major exchanges around the world have been rising rapidly: by early 1990, trading in foreign stocks accounted for approximately 6 percent of the trading volume on the NYSE, 7 percent on the Tokyo Stock Exchange, over 20 percent on the London Stock Exchange, and above 30 percent on the other major European markets (OTA 1990, 29–30). Ultimately, the organized exchanges may give way to private international trading networks (such as GLOBEX, operated jointly by the Chicago Mercantile Exchange and Reuters) that will allow round-the-clock/round-the-world trading.

A critical question for the 1990s and beyond will be whether, and if so how, securities regulation will be coordinated internationally. In global markets, no country can exert its regulatory will without risking the transfer of its corporations and/or its markets overseas. Indeed, critics of proposals to tax securities and financial instruments transactions—as a way of reducing speculation—rest their opposition primarily on the risk that such a tax would drive much current trading off shore. Still, however, there is no consensus as to what degree, if any, U.S. securities authorities should be ready to yield their sovereign control over U.S. securities markets to a wider international body of regulators, as their bank regulatory counterparts have already done.

24. At one extreme, government securities carried 0 risk weight and thus no capital requirement; at the other extreme, commercial and most other nonmortgage loans carried a 100 percent risk weight and thus the full capital requirement.

25. At this writing, however, U.S. markets have reportedly regained the top ranking worldwide owing to the major drop in Japanese share prices during 1990.

8.3 Roads Not Taken

With so many seemingly adverse developments affecting the U.S. financial markets and institutions during the 1980s, two natural questions are whether policymakers could have made better choices and, if so, why they didn't. With respect to the structural developments in the financial arena just reviewed, the answers to these questions have already been suggested. Only in the case of interstate banking was there a clear consensus among independent experts on what should be done; neither Congress nor the administration acted because of the deep split in views between large and small banks. On the need for additional bank product diversification and deposit insurance reform there was also a fair degree of consensus; however, among the experts, let alone the policymakers, there was little agreement about the forms that these efforts should take. Finally, with respect to the developments in securities markets, there was no consensus either among the experts or among relevant interests on the proper policy reaction.

Accordingly, the more interesting questions center on the alternative policy measures that could have been taken to avert or respond to the various crises of the decade. In the case of thrifts, starting the inquiry with the 1980s is too late, for several actions could have been taken in the 1970s that probably would have prevented most, if not all, of the damage that occurred the following decade. The Hunt Commission, for example, recommended in 1971 that deposit interest controls be phased out and that banks and thrifts be allowed to offer ARMs. At that time, however, most depositories were not enthusiastic about the lifting of interest controls, which would have raised their cost of funds. Only by the early 1980s, when market interest rates were so high above the Regulation Q ceilings that depositors were rapidly fleeing their banks and thrifts for money market funds, was the industry, and thus Congress, receptive to accelerated removal of the remaining interest rate controls.

Lenders were more supportive of ARM authority in the 1970s, but powerful forces in Congress were not. In particular, ranking members of the banking committees feared that, in an environment of rising interest rates, ARMs would be detrimental to the interests of consumers. This attitude, too, would change by 1980, when the thrift industry was in serious trouble.

Given, therefore, the inevitability of the 1981–82 thrift crisis, was there any other course of action that policymakers could have adopted to avoid, or minimize, the subsequent asset quality crisis among thrifts? In theory, of course, policymakers could have shut down all thrifts with negative net worths measured at market value—or most of the industry. But, as suggested earlier, this option would not have been politically realistic.

The more feasible course would have been to impose growth limits on all thrifts with inadequate (or negative) capital and to have *strengthened* supervision of weak thrifts, rather than weaken it as actually occurred. Clearly, in retrospect, this would have prevented much of the asset gambling that poorly

capitalized thrifts were permitted to engage in with virtually unlimited quantities of federally insured funds (White 1991, chaps. 5–7).

The Bank Board, in fact, tried variations of this approach in the mid-1980s. It attempted to prohibit "brokered deposits" (deposit accounts just under the $100,000 ceiling placed by brokerage firms in generally weak or insolvent thrifts offering high rates of interest), but this effort was rebuffed by the courts as outside the Board's statutory authority. In 1984, the Board also limited direct investments by thrifts (equity positions in stocks, physical assets, or nonthrift businesses that various states allowed their state-chartered thrifts).

However, in each case, the Board received little encouragement and, in some quarters, outright hostility. The deregulation-minded Treasury Department, as well as its former secretary and current White House chief of staff, opposed limits on the thrift industry, believing that, as the economic expansion continued, insolvent thrifts would be lifted to health.[26] The same attitude prevailed in the banking committees of both congressional chambers, where many members were beneficiaries of political donations from thrifts, their owners, and their trade associations. Accordingly, by the time the Board was able substantially to increase the thrift supervisory force (by transferring thrift examiners to the independent Federal Home Loan Bank System, which was free from civil service salary caps and control by the Office of Management and Budget), it was too late. Many weak or insolvent thrifts had grown enormously and had already gambled (or defrauded) their way to big losses.

The major "road not taken" during the two major banking crises, of course, would have been for the Federal Reserve not to have intervened and let market developments take their natural course. Of course, even with perfect hindsight, it is impossible to know how events otherwise would have played out. All that is known is that in each case—the Mexican debt crisis of 1982, Continental Illinois in 1984, and the several large bank failures in 1988—policymakers feared that, if they did not intervene, not only would one or more banks fail, but uninsured depositors at other solvent banks would panic and run from them, too.

Whether this concern was well grounded and, even if so, whether the consequences of a major deposit run would have been as devastating as policymakers apparently feared continue to be debated among legislators, administration officials, and academic experts. Critics of what has become known as TBTF argue that systemwide runs will not occur because uninsured depositors are capable of distinguishing solvent from insolvent depositories but that, even if a wider run started, it would not affect real economic activity since depositors would merely shift their funds from one bank to another, leaving the money supply in the banking system unchanged (Kaufman 1989). Furthermore, by

26. Former Secretary Regan also tried during the mid-1980s to force the resignation of the Bank chairman, Ed Gray. Eventually, Gray's term expired in 1987, and he was replaced with M. Danny Wall, formerly a top aide to the minority members of the Senate Banking Committee.

protecting all depositors at large banks, policymakers not only disadvantage smaller banks (whose depositors may not get the same treatment) but undermine market discipline against risky bank behavior.

Defenders of TBTF (very few openly "support" the concept) counter principally by pointing to the disruptive effects that a contagious deposit run can have, even if eventually all the funds are merely shifted around the banking system. In the interim, markets can become very unsettled, and interest rates can "spike" upward, as they have in previous financial crises (Carron 1982a). Even though temporary, the negative macroeconomic consequences may be too great for policymakers to risk, especially in the midst of a recession, as was the case during the Mexican debt crisis in 1982.

For these reasons, it is not surprising that, even today, the Federal Reserve continues to be skeptical about depositor discipline, especially for larger banks (Greenspan 1990, 13). One of the interesting questions for the 1990s is whether Congress will nevertheless restrict the Fed's ability to implement TBTF, as the American Bankers Association urged in 1990, or whether it will look elsewhere for additional discipline against excessive risk taking by banks.

Finally, whatever one may believe about the wisdom of the Federal Reserve's effective protection of uninsured depositors at large banks, it is universally agreed that the Fed took appropriate action in response to both stock market crashes of the late 1980s. Without the assurances of liquidity that the Fed provided immediately after both events, trading on the stock exchanges could have ground to halt, shattering not only the confidence of securities investors but of firms and consumers as well.

8.4 Concluding Thoughts: Outlook for the Future

In the 1980s, policy toward financial institutions and markets was driven largely by crisis. Interest group deadlock on a variety of structural issues—interstate banking, financial product restructuring, deposit insurance reform, and securities markets reforms—thwarted at least Congress from taking any major initiatives.

As the 1990s opened, however, the globalization of financial markets and the growing intensity of foreign competition in the financial services industry has shifted the political balance. As part of its 1992 initiative, the European Economic Community is permitting the development of major integrated financial service firms. Japan has been gradually liberalizing its financial markets and constraints on activities of its banks and securities firms. With American financial institutions no longer dominant in the global market, policymakers are paying increasing attention to how they can reform the nation's financial structure to enhance the "competitiveness" of U.S.-based financial institutions. In this environment, policymakers are likely to grow more receptive to breaking the stalemate that has thus far persisted on many of the important structural issues affecting the financial marketplace.

An open question is to what extent, and at what pace, policymakers in the United States will join with their counterparts abroad to harmonize regulation and supervision of financial institutions and markets. The Basle bank capital standards set an important precedent that may eventually be followed for other aspects of bank regulation (e.g., deposit insurance and bank affiliations with nonbanking enterprises), if not during the 1990s, then conceivably after the year 2000. In addition, as already noted, as securities trading becomes more internationalized, the prospects for international cooperation in securities regulation also improve.

Whatever policy decisions in the financial arena are made in the 1990s, Americans in this decade and beyond will be paying for the costly policy mistakes of the previous two decades that led to the thrift debacle. The resolution of the thrift crisis is likely to cast a shadow over financial policy-making in the 1990s.

Finally, those who provide economic advice to policymakers can take away some valuable lessons from the 1980s. Perhaps the most important result from the decade is that the real economy proved to be far more resistant to the many financial upheavals than many would have predicted. This is largely because the Federal Reserve intervened to prevent each crisis from generating adverse macroeconomic effects. But, in the case of the stock market crashes in particular, it appears that both consumers and firms were (and arguably still are) much less influenced by short-term stock price movements than may have been commonly believed.

Economists who advise policymakers on financial matters also, somewhat surprisingly, can take heart that their efforts ultimately will have some use. Although policymakers largely ignored the advice of many banking specialists throughout the 1980s by failing to rationalize the regulation of financial institutions and to reform the deposit insurance system, these issues are likely to be at the top of the agenda in the 1990s, and policymakers are already looking to the accumulated wisdom of the academic community for guidance. One hopes that the 1990s will have fewer crises to distract attention from the important structural issues in financial markets that should be addressed.

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2. *William M. Isaac*

It is a distinct honor and privilege for me to be invited to appear before such a distinguished group of scholars. My friend Marty Feldstein has asked that I address the collapse of the savings and loan (S&L) industry.

I guess I'm in a rather unique position to comment on the collapse of the S&L industry in that I served as chairman of the Federal Deposit Insurance Corporation (FDIC) from 1981 through 1985 when the seeds of the S&L disaster were sown. Some of you might not be aware that the FDIC insures the deposits in the savings bank industry and that the savings banks were suffering the same kinds of problems as the S&Ls in the early 1980s. It's an interesting case study to compare the widely divergent ways in which the FDIC and the Federal Savings and Loan Insurance Corporation (FSLIC) responded to these problems.

Before I get into that subject, I need to go back in time to set the stage. Thrifts were created in the nineteenth century in response to a market need. Banks were not satisfying the desire of consumers for a safe haven for their savings dollars and for a vehicle to finance their most basic and expensive need: housing. Thrifts were formed, initially as philanthropic organizations, to fill the void.

Across the span of a century, market conditions changed dramatically. Not only banks, but also many other financial intermediaries, recognized the opportunities for profit in serving consumers and developed the products to do so.

In the meantime, in response to the banking collapse of the 1930s, the government had intervened with a series of measures designed to limit competition. Interest rate controls were put in place to restrict price competition. A rate differential was established to encourage the flow of funds to thrifts. A deposit insurance system was created to maintain stability and to preserve a diverse (and uneconomic) banking structure. Laws were passed mandating

that thrifts function as nondiversified lenders. Branching restrictions severely curtailed geographic expansion and diversification. And other fences, such as the Glass-Steagall Act, were erected to keep the various types of financial intermediaries on their own distinct playing fields.

The first signs of tension in this rather comfortable scheme began to appear in the 1960s. The Johnson administration's "guns and butter" fiscal policy in the mid-1960s set off inflationary pressures that led to higher and more volatile interest rates, which impaired the viability of long-term lenders such as thrifts.

Largely in response to these pressures, in 1971 the Hunt Commission recommended that deposit interest rate controls be phased out, that thrifts and other lenders be allowed to offer variable-rate mortgages, and that mutual thrifts be permitted to convert to stock form of ownership. The recommendations were ignored by the administration and Congress.

My old agency—the FDIC—committed what I believe was a major public policy mistake in 1972 when it greatly expanded the scope of coverage of the deposit insurance system: rather than allowing the Bank of the Commonwealth in Detroit to fail, the FDIC infused capital into it. All creditors were also bailed out by the FDIC at U.S. National in San Diego in 1973 and Franklin National in New York in 1974.

President Roosevelt had been opposed to a federal deposit insurance system when it was proposed in the 1930s. He believed that it would be unduly expensive and doomed to fail because it would force the well-managed banks to subsidize the high flyers. A compromise was reached calling for very limited depositor protection plan—initially only $2,500 per account. Amounts above the insurance limits were to be exposed to the risk of loss. The FDIC's actions in 1972, 1973, and 1974 represented a vast expansion of the scope of the deposit insurance program and, I'm convinced, began the process of undermining discipline in our financial system.

The Federal Reserve Board committed a significant mistake in 1977 when it ruled that bank holding companies could not acquire healthy thrifts. Somehow the Fed managed to find that the operation of a thrift was not sufficiently related to banking to allow bank holding companies to enter the business. The real reasons were political: the Fed did not want to offend the thrift industry or the smaller banks, which viewed bank holding company acquisitions of thrifts with alarm because they would permit the larger banks to bypass the restraints on geographic expansion. This decision by the Fed was critically important because it prevented the thrifts from becoming part of diversified financial institutions.

Inflation raged during the Carter administration, with the prime rate soaring above 21 percent. Thrifts—both S&Ls and savings banks—suffered massive disintermediation and began to hemorrhage red ink owing to their long-term, fixed-rate loan portfolios.

Congress belatedly authorized deregulation of interest rates in 1980. But, by then, much damage had already been done. Thrifts had amassed huge port-

folios of long-term, fixed-rate loans, and banks and thrifts alike had invested heavily in staffs and bricks and mortar to enable them to engage in the only form of competition previously allowed: nonprice competition. Banks and thrifts should have been provided a lengthy phase-in period to adjust to interest rate deregulation, as would have been the case if Congress had acted in the early 1970s when the Hunt Commission made its recommendations. Instead, they were thrust into a deregulated environment virtually overnight.

When the Reagan administration entered office in 1981, it was faced with an overwhelming number of failing thrifts. It's important to note that the problem at this point was an interest rate spread problem, not asset quality, and it affected both S&Ls insured by the FSLIC and savings banks insured by the FDIC.

At the FDIC, we formed a savings bank project team in early 1981 to study the problems and come up with a program for dealing with them. We concluded that our regulatory response needed to be relatively stringent in order to prevent the problems of the weaker savings banks from contaminating the stronger ones. We decided that we would merge savings banks that were insolvent on a book or liquidity basis into relatively strong institutions with FDIC financial assistance. Because the insolvencies were being caused by what we hoped were extraordinarily high interest rates that would eventually recede, we decided that, in most cases, our financial assistance should take the form of income maintenance agreements. These agreements called for the FDIC to guarantee the acquiror a positive interest rate spread on the acquired asset portfolio. The deals were structured so that the acquiror's assumed cost of funds was the average cost of funds for the region rather than the actual cost. This gave the acquiror an incentive to hold down the interest rates paid on deposits. The agreements assumed that the composition of an acquired asset portfolio did not change from the date of acquisition except for an assumed runoff of the portfolio due to principal repayments. This gave the acquiror the incentive to restructure the asset portfolio as interest rate conditions warranted.

It was our belief that these types of agreements would enable the FDIC to resolve the savings bank problems at the lowest possible cost. When interest rates receded, payments under the agreements would cease. Acquirors would receive whatever amount of money was needed to carry them through the high interest rate period and no more.

We ran projections on the cost of resolving the savings bank problems under a variety of interest rate scenarios, including a worst-case scenario that assumed that rates would continue to rise almost indefinitely. We could envision the possibility that the FDIC fund would be depleted. We made a conscious decision that we would not allow the finite nature of our financial resources to dictate our regulatory response. We would do what we felt we needed to do, and, if we ran out of money, we would go to the Congress and ask for more.

For savings banks that were technically solvent but failed to meet our normal capital standards, we decided that we would allow them to continue in

operation so long as they did not do anything to increase the FDIC's exposure to risk. In short, this meant that we would not allow them to grow by more than a nominal amount, engage in new activities, or pay above-market rates for deposits. So long as a marginally capitalized savings bank behaved itself and did not increase its risk profile, it made financial sense for the FDIC to deal with it later, after interest rates receded, rather than sooner. If it began to increase its risk profile, the FDIC would deal with it immediately, as the Bowery Savings Bank in New York and a couple of others learned.

Over at our sister agency, the FSLIC, a different approach was taken. Weak S&Ls were merged into other weak S&Ls. The asset portfolios were marked to market in the merger, and the resulting goodwill was allowed to be counted as capital to support future growth. Capital standards were lowered, and regulatory accounting techniques, such as loss deferral and appraised equity capital, were authorized to enable insolvent S&Ls to continue in operation and even grow.

On the basis of conversations that I had at the time with the top officials of the FSLIC and its parent, the Federal Home Loan Bank Board, it was felt that the FSLIC did not have sufficient funds to deal with the S&L problems and that the proper response was therefore to defer dealing with the problems as long as possible. It was felt that one solution was to allow S&Ls to grow their way out of the interest rate mismatch—to bury their old portfolios of low-yielding assets with newly booked assets carrying much higher yields.

I must say that, at the time, the FSLIC's policies received a far more favorable response within the industry and in political circles than the FDIC's policies did. Loss-deferral accounting is a case in point. That accounting technique allowed a thrift to sell its underwater assets at a loss, book the loss as goodwill to be amortized over a period of years, and reinvest the proceeds in assets earning higher yields. The thrift industry, many state banking departments, and many members of Congress favored loss-deferral accounting. The FDIC felt that booking the goodwill as capital would only lead to greater problems in the future, so it refused to permit the technique even after the state of New York adopted rules allowing savings banks in New York to use loss-deferral accounting.

In 1982, Congress, with the support of the Reagan administration, passed the Garn–St. Germain Act. That law sanctioned the policies being pursued by the Bank Board and the FSLIC. It broadened the lending and investment authorities of S&Ls and reduced capital standards for thrifts by mandating a net worth certificate program. From this point forward, S&Ls began a tremendous growth spurt, with much of the growth in higher-risk activities.

In 1983, the FDIC issued a study calling for significant reforms in the deposit insurance system to instill greater depositor discipline in an environment of deregulated interest rates. The study, which was ignored by the Congress and the administration, concluded that the de facto system of full depositor protection, to which we had evolved, was fundamentally inconsistent with in-

terest rate deregulation. If changes were not made to put depositors at risk, a disproportionate amount of the funds would flow to the marginal institutions willing to pay the highest rates.

Ed Gray took office as chairman of the Bank Board in 1983. After serving about a year, Gray became concerned about the rapid growth and risky investments in the S&L industry. Much of the growth was being funded by fully insured brokered funds, so Gray joined me in causing the FDIC and the FSLIC to adopt regulations curtailing deposit insurance coverage on brokered funds. The money brokers challenged the regulations, and the federal court ruled that the agencies lacked statutory authority. The battle moved to Capitol Hill, but the agencies' position was opposed by the administration and key members of Congress. This defeat suffered by the FDIC and the FSLIC would ultimately prove to be extraordinarily expensive to the American taxpayers.

The Bank Board's examination force was grossly understaffed to keep pace with the rapid growth and mounting problems in the S&L industry. Ed Gray sought permission from the administration to increase examiners' salaries and increase the work force. While he ultimately prevailed, it was only after much delay and considerable infighting.

In 1985, Gray proposed to limit the investment authority of S&Ls. He met with stiff opposition from the S&L industry, the administration, and key members of Congress, so he had to trim his proposal.

The administration finally began to pay some attention to the S&L problems in 1986 and proposed to recapitalize the FSLIC to the tune of $15 billion. The measure was strongly opposed by the U.S. League of Savings Institutions and by key members of Congress, such as the then speaker of the House, Jim Wright, and was cut back to $5 billion.

Ed Gray left office in 1987, discredited and under attack by the administration, the industry, and the Hill. Danny Wall became chairman of the Bank Board, determined to improve the S&L industry's tarnished image. He consistently understated the industry's problems and steadfastly maintained that the FSLIC had enough money to handle things. This allowed the politicians to continue ignoring the situation until after the 1988 elections. By this time, the losses had grown to unfathomable proportions.

In extending me the invitation to speak today, Marty asked that I focus on the development of the problem, not on future solutions. So I will endeavor to be true to his charge. But I believe that it is essential that we learn some lessons from what is clearly the sorriest episode in American financial history. In my judgment, the foremost lesson is that attempts by the government to interfere with the operation of the markets are doomed to fail, no matter how well intended. Government interference with the markets—the restraints on geographic and product diversification, the controls on interest rates paid on deposits and charged on loans, the refusal to allow thrifts and banks to combine, and the overly broad protection of depositors—was without question the direct and proximate cause of the thrift debacle.

The second lesson is that there is a critical role for the government to play in supervising the financial system. The government needs to play the role of the traffic cop, whose duty is to establish and enforce the rules of the road. Certain basic rules of safety—such as capital standards and risk diversification requirements—must be established.

If the government is to enforce these rules properly, we must ensure that the regulatory agencies are as free as possible from political interference and that there are proper checks and balances in the system. I am convinced that the savings bank problems were better contained than the S&L problems because the insurer—the FDIC—was able to function as an independent watchdog and was relatively free of political pressures. The FDIC was independent of the primary regulator of savings banks and was relatively independent of the political process. It did not need, for example, approval of its budget or staffing levels from Congress or the administration. The FSLIC, in contrast, was organized as a subsidiary of the Bank Board, which was the primary regulator of S&Ls. Moreover, it needed approval of its budget and staffing levels from both the administration and the Congress. This almost forced the agency into an incestuous relationship with the industry it was supposed to be regulating in order to garner the political support it needed.

3. William Taylor

I am in general agreement with Litan and Isaac on the factors they have cited this morning as being responsible for the crisis in the savings and loan industry and the strains in banking and other sectors of the financial system. If we have differences, they are to be found in the degree of importance to be assigned to particular factors. Accordingly, I will use my time to indicate which factors I think deserve greatest emphasis.

The impact of the increasingly competitive market conditions that evolved during the 1980s cannot be overemphasized. There is an old saying that, left to compete to the death, many will die. So it has been with financial institutions. Increased competition led to a narrowing of revenue/cost margins and a loss of customers with consequent effects on profitability. In response, institutions increasingly turned to risky loans and to risky ventures in an effort to maintain profitability and, indeed, in some cases viability.

The intensified competition can be traced to many factors. Financial and technological innovation added greatly to competitive pressures coming from outside the industry. The development of money market mutual funds by nonbank financial firms constituted a particularly important challenge to the funding activities of banks, large and small.

Banks also became subject to major new competitive pressures in their lend-

ing activities. Banks traditionally had a special access to comprehensive, and somewhat exclusive, credit information and special expertise in analyzing that information. Enhanced technology made the information more readily accessible to everyone in the marketplace, thereby limiting the uniqueness of banks in this regard. Technological innovation also enhanced opportunities to achieve economies within the industry through merger and consolidation, thus adding to competitive pressures on high-cost, inefficient firms.

These developments, moreover, produced strong pressures to dismantle an array of legal and regulatory restrictions so that depositories would be able to compete more effectively and take advantage of the new profit opportunities. The resulting removal of these restrictions, however, proved to be a double-edged sword because the dismantling of arrangements that had long protected depositories from competition was also involved. Proponents of dismantling the restrictions and the protections offer that a more efficient system will develop to better serve the public. This may indeed be true, but, in the meantime, the process can be painful, as has been dramatically demonstrated.

Of the host of public policy decisions that affected competitive conditions in the banking business in the decade of the 1980s, some were more heralded than others and some more significant than others. Early in the decade much was made of the deregulation of interest rates as banks clamored for the opportunity to compete with money market mutual funds. As the rate deregulation took hold, there was an increasing call for increases in the services that banks could offer. It was said that banks and thrifts must be deregulated on both sides of the balance sheet if they were to be effective competitors in the new world. And, indeed, to some degree the powers of banks were expanded and those of thrifts maybe a bit more.

As the focus of attention was riveted on expanded powers at the national level, a public policy impact at least as dynamic in my view was occurring at the state level, for states were not only liberalizing the powers of banking organizations but also easing intrastate and interstate geographic restrictions. The country entered the 1980s with only one state that would allow holding companies located outside the state to buy a bank within its borders, the state of Maine. It ended the decade with forty-seven states having laws that allow the interstate expansion of bank holding companies, albeit some more restrictive than others. And the degree of intrastate liberalization of branching laws was almost as extensive.

Another significant area of public policy in the 1980s involved the question of who could merge with whom. At the beginning of the decade, there was a whole apparatus in place in the government to see that competition within a geographic area was carefully monitored and maintained. In considering a proposed merger or acquisition, great effort was made to determine whether one market circle intersected with another market circle to the detriment of current competition, or future competition, or future potential competition. Concern with such questions waned as the decade proceeded, reflecting the influence

of the combination of a few court cases and a new set of antitrust guidelines as well as the advent of interstate banking. The result has been the removal of barriers to entry of companies from "outside" a geographic region and the general encouragement of the merger, acquisition, and consolidation process. Occasionally, a proposed merger will raise competitive issues, such as the recent case in Hawaii, but for the most part opposition to concentrating and consolidating the banking industry is now considerably diminished from what it was at the start of the 1980s.

For example, prior to 1980, the Federal Reserve approved no more than a few mergers or acquisitions by bank holding companies where the target company or bank had more than $1 billion dollars in assets. In the 1980s, on the other hand, almost 100 such mergers or acquisitions were approved. As a result, the number of banking organizations in the country, as measured by the sum of bank holding companies plus the number of independent banks, was reduced by almost 25 percent. So, while many view the deregulation of interest rates and the liberalization of powers as the big developments of the 1980s, I would offer that at least as much impact resulted from the policy decisions pertaining to structure and competition.

In addition to policy decisions that affected the competitive positions of depositories, there were also others that had significant effects on the course of developments over the decade. Two in particular require mention because of the adverse impact that they have had. First, it seems logical that a bank or thrift institution that cannot compete effectively in the marketplace and becomes insolvent should be closed promptly and sold or liquidated as soon thereafter as practical. Yet to do so in an insured system requires having enough in the insurance fund to pay depositors. In the 1980s, there was not enough money in the thrift insurance fund and therefore various artificial measures were taken to keep troubled institutions open. This approach has proved to be very costly.

The second policy decision deserving special mention was what I call adoption of the desupervision principle. We, the supervisors, some more aggressively than others, reacting to our own budgetary problems of the mid-1970s, decided to alter the manner in which banks were examined and supervised. The "top-down" approach became popular. In place of labor-intensive on-site audit and evaluation procedures, the bank examination process became more off-site and consultative in nature. Off-site surveillance systems were developed from financial reports submitted by the banks. Policies and procedures at banks were reviewed with less emphasis on specific assets. The time between on-site exams was extended materially, and in general there was less comprehensive and independently developed information on each bank.

Without denying the benefits of surveillance systems or the need for policy review, let me state my view that the extent of the shift to this less hands-on and less often approach to supervision must be questioned. It seems essential that a good supervision program include annual on-site examinations that have

as their purpose the determination of whether assets are of good enough quality to generate the cash flow required to meet obligations due to the bank's depositors and creditors and whether the bank's books need to be adjusted to reflect reasonable values. I think that the experience of the 1980s demonstrates clearly the wisdom of the annual, full-scope examinations, and I believe that all agencies responsible for supervision will adhere to this approach in the coming decade.

In summary, the problems of depositories and the financial system more generally that developed in the 1980s can be attributed primarily to the intensification of competitive conditions, resulting from financial and technological innovation and from changes in public policies—the deregulation of deposit interest rates, new and sometimes riskier powers, liberalized antitrust policies, and the loosening of restrictions on geographic expansion. All these promise net benefits to society in the long run in the form of a more efficient delivery of services to the public at lower cost, but they create or intensify difficulties for firms competing in these markets during the transition period. Compounding the effects of intensified competition were shortfalls in the execution of two public policies in particular—the manner in which distressed institutions were resolved and the reduced emphasis given to "hands-on" on-site examinations in the supervision process.

Summary of Discussion

Robert Litan praised Isaac's management of the financial problems in the savings bank industry and agreed with Isaac's assessment that the FDIC had been more successful dealing with savings banks than the FSLIC had been with thrift institutions. He noted, however, that the FSLIC's thrift problem had been of much greater magnitude. In the early 1980s, roughly 70–85 percent of the thrifts were losing money; on a market-value basis, the thrift industry was over $100 billion in the red. The problem in the savings bank industry was not nearly as large, so Litan asked Isaac whether he would have made similar policy decisions had he been handling the thrift crisis instead. Would he have requested more money with which to resolve the problem directly, or would he first have pursued a policy of shrinkage or at least containment of growth?

As a second point, Litan responded to Isaac's suggestion that banks should have been given permission back in 1977 to buy healthy thrifts. He agreed that many bank organizations would have bought healthy thrifts as a way of circumventing the interstate restrictions. Had this happened, however, it would not have eliminated the thrift crisis. Although separately capitalized, the failing thrifts would have been affiliates of banks through their holding companies, and these holding companies would have been facing a large insolvency problem. Further, the bank holding companies might have experienced greater dif-

ficulty dealing with the LDC debt problem when it arose. On the other hand, had there been many banks in such difficulty, Volcker would have had at least partial jurisdiction over the resolution of the thrift crisis. Would that have improved the outcome?

Litan also argued that one should not become obsessed by the crises in the financial industry and forget that both the savings banks and the thrifts suffered from underlying structural problems. In the long run, securitization would have eliminated the need for a separate thrift industry even without the crisis in the 1980s: thrifts simply would have become less and less profitable as separate institutions. In a slower way, the same thing is happening to the banking industry. Over the last thirty years, loan losses have been steadily rising in the banking industry as banks have taken greater and greater risks in response to some systemic pressure. The increased risk creates a need, as Taylor suggested, for more capital in the banking system.

William Isaac responded that he would not have handled the savings and loan crisis differently than he had handled the savings bank problem. The policies that he pursued were those suggested by professional bank supervisors; his role was protecting the professional staff from political pressure, and he had been willing to take the heat from Congress if there were objections to the policies.

The excuse that the FSLIC had bigger problems relative to its capital than did the FDIC is not a new one. The problem that the FDIC faced with the savings bank industry, however, was actually quite large—there was no certainty that they had enough money to deal with the problem. As it turned out, interest rates came down, and the problem was solved at a cost of several billion dollars. But, under other projected scenarios, the fund could easily have gone broke. Even so, the agency made the decision that it would spend whatever it took to do the job right and would go to Congress and ask for more money if it were needed. The agency believed that the alternative was to create an even bigger problem in the future, which would have required even more money to resolve. This same logic would have pertained to the savings and loan industry, and Isaac would have followed the same path. He would not have encouraged expansion, as the FSLIC chose to do, but would have curtailed growth and asked Congress for more money if necessary.

Charls Walker submitted two corrections to earlier comments. First, the Treasury Department during the first Nixon administration wanted to institute financial reform before problems grew into crises. It was drawn off track, however, because the first task to which it was directed was the one-bank holding company legislation. Walker noted that he had tried to prevent the Federal Reserve from becoming the regulator of bank holding companies, but had been unsuccessful.

Second, with respect to the Hunt Commission, everyone had agreed that reforms were needed with respect to deposit interest rates and other issues. Walker had argued, however, that, in order to get through Congress, the pro-

posal needed to come from a blue-ribbon commission of leaders in the affected industries. A commission was formed, and it developed an excellent report, but in 1971 and 1972 the Treasury sponsored a great deal of legislation on other issues. This meant that action on the Hunt Commission report was postponed until just before Walker left the Treasury, and by that time no one was very interested anymore. Walker felt that both these points show that there were efforts to solve some financial regulation problems in other than a crisis situation but that the turn of events prevented their success.

Elizabeth Bailey highlighted Isaac's comment that Roosevelt had worried about levying deposit insurance premiums on the basis of average risk in the industry so that banks that had not made risky loans would end up subsidizing banks that had made risky loans. She observed that the policies in the late 1980s have set up exactly that kind of system, resulting in enormous premiums on deposit insurance in exactly the way that Roosevelt had feared. *Isaac* responded that he too is very concerned about the current deposit insurance system, which requires very basic reform.

Rudolph Penner returned to an ongoing conference theme regarding the influence of policy analysts on different issues. He believed that the analysts had been particularly ineffective with regard to the deposit insurance fiasco. One reason was the work of lobbyists and the flow of campaign funds to Congress. Another reason was colossal ignorance on the part of legislators—analysts simply had no credibility relative to a local thrift owner who was decrying his troubles. Thrifts really had a wonderful image in the 1980s.

There was one aspect of analysis, however, on which a lack of credibility was deserved, and that was the estimates of the cost of the problem. In January 1986, the Congressional Budget Office (CBO) was suggesting that the problem could have costs as high as $25 billion. By the summer of 1988, Litan's paper quotes Danny Wall [chairman of the Federal Home Loan Bank Board] as estimating $40 billion, and the CBO was projecting nearly $100 billion. What went wrong with the estimates technically that made them so misleading?

Litan responded that he spends a lot of time doing cost estimates, and one of the key problems is that the estimates must rely on the financial statements of the institutions themselves. Roughly speaking, the estimates are calculated by taking the financial statistics, projecting how many institutions holding which types of assets will fail, and then applying cost ratios to the different types of assets. The problem that arose in making cost estimates for thrifts was that, as each new year's data arrived, the cost ratios were skyrocketing. The total assets of failing institutions were in fact relatively stable between 1984 and 1988—there were roughly $300 billion of assets held by 600–700 institutions. The FSLIC could resolve only the worst of them every year, however, and, whereas the costs were initially about ten to fifteen cents per dollar, by 1986 and 1987 the institutions that they were resolving cost thirty to forty cents per dollar. When that is the tip of the iceberg, it is hard to predict the costs for the rest of the iceberg.

In a way, this is a problem still faced by the Resolution Trust Corporation today, as many of the assets that it considers are undeveloped properties or partially completed buildings. It is impossible to determine their net worth.

William Taylor expanded on Litan's explanation. In his experience doing cost estimates with the Federal Reserve staff, they had found that, if one strips out the accounting devices, such as deferred losses and goodwill, and then sums the resulting net worth over all institutions for which the number is negative, one gets a figure of approximately $30 billion. That is, before any assets are discounted, the cost is already about $30 billion. When the discounting is applied, the numbers just go up.

Martin Feldstein posed the question of why the administration chose to oppose legislation that would have restricted insurance on brokered deposits since that decision clearly contributed to the growth of thrifts in the second half of the 1980s.

Isaac said that the administration claimed that it was in favor of brokered funds because they allowed markets to work by letting money be transported around the country more freely. The real reason may have been the political pressure being applied by Merrill Lynch and other major houses that were making a lot of money on brokered funds. In the midst of the battle over this legislation, a senior official at Merrill Lynch had said to Isaac, "What kind of reaction did you expect you were going to get from us? This is a 'no brainer' business: we go around the country sweeping up the money, putting it in institutions. No risk, no effort, and we're making $30 million a year. And you expect that we're going to lie down and play dead when you decide you don't like that anymore?" That was almost a verbatim quote, Isaac said.

In keeping with the market-oriented style of the Reagan administration, Isaac had suggested that they remove the federal subsidy from the brokered funds market—money brokers should put money into institutions that they believed would pay it back *without* the benefit of a federal guarantee. The administration did not accept Isaac's argument, and the legislation was defeated. Had the subsidy been removed, the savings and loan loss might have been much less; as a rough estimate, the money brokers' continued business probably cost the government about $50 billion.

Taylor suggested that the problem was even wider than brokered deposits. Some banks sent people to metropolitan areas all over the country, where they would run advertisements encouraging people to come to a designated location and receive insured deposits paying well above the market rates. Thus, there were many egregious transactions that were not handled through brokers.

William Poole noted that there are some reasonable uses of brokering and that it is difficult to write legislation that distinguishes the improper uses from the proper ones. Also, it is very easy for a brokerage firm to accomplish the same thing in a different way if it is proscribed from direct brokering activity. The emphasis on brokered funds is entirely misplaced because it is so easy to get around any rules on the subject.

Isaac agreed that there are other ways to raise funds but argued that brokered funds were, by far, the most egregious form of abuse. It does not make sense to knock down a rule that is correcting 90 percent of the abuse out of fear that there might be 10 percent leakage anyway. *Poole* concurred but held that, if the rule had been passed, people would have immediately shifted to the indirect methods for raising funds. *Isaac* responded that he did not doubt the ingenuity of markets to find ways to get around the government or to take advantage of subsidies. Had these indirect methods become a significant problem, he would have found a way to deal with that, but he had wanted simply to handle the 90 percent portion of the problem first.

Litan agreed with Taylor's point that brokered deposits were more a symptom than the underlying problem. The underlying problem was growth. Isaac said that he had constrained the growth of savings institutions that were insured by the FDIC and had coordinated the broker deposit rule with Ed Gray [chairman of the Federal Home Loan Bank Board]. Had they considered simply imposing a growth restriction in lieu of a brokered deposit rule?

Isaac answered that the FDIC had been reasonably vigilant about trying to contain growth. Growth restrictions are generally applied, however, to institutions that are already in trouble. The regulators issue a cease-and-desist order telling them not to grow, and, if they do, they can be fined or punished in some other way. But the problem with brokered deposits is that they can grow very, very fast. The money brokers were going to institutions that did not have problems and dumping hundreds of millions of dollars of funds into them virtually overnight. Suddenly, a good institution would have problems, and it was too late to stop it with simple growth restrictions: the growth had already occurred. Generally, one would need "ten times as many bank examiners" as they had to control that kind of growth with regulation.

Feldstein asked whether Congress had not thought that growth was the desired solution to the problem?

Taylor noted that, during 1984 and 1985, the growth rates at some savings and loans were fantastically large. A 20 percent growth rate in the assets of a bank or financial institution is very difficult to absorb, and 100 percent is unthought of, but they saw some growth rates of 2,300 percent. To use the funds, these banks were frantically seeking real estate investments, and, even though many of these investments were called "loans," they were really straight equity investments in real estate.

Thomas Enders asked whether the federal insurance agencies had considered how insurance should be priced and whether they believed that the price adequately reflected the overall risk.

Taylor believed that the issue had not received much consideration. The change from insuring $40,000 per account to insuring $100,000 per account received very little debate overall, and he remembered no discussion about pricing.

Isaac said that pricing had been given some consideration at the FDIC. They

had focused on risk-based premiums: charging riskier banks more rather than raising the overall level of the premium. Ninety percent of bankers favored this policy in principle, but there was no consensus on how such a system should be implemented.

On the question of the overall level of premiums, the FDIC had not believed that deposit insurance coverage was underpriced. There seemed to be enough premium income to deal with the problems that arose. Isaac believed that one reason that the FDIC is running short of money now is that they are not handling failures as efficiently as they should. In 1984, the FDIC had handled Continental Illinois's $40 billion failure with an $800 million expenditure; the way that failures are being resolved now, a $40 billion failure would probably cost the FDIC $4 or $5 billion. Another reason that the FDIC is running short of money is the aftereffects of the savings and loan crisis. Many real estate loans that went sour for commercial banks did so because so much overbuilding had been funded by poorly run savings and loans.

Feldstein asked Isaac to speak about the Continental Illinois decision. How is the decision made that a bank is "too big to fail"?

Isaac said that the decision was both abhorrent and the right thing to do under the circumstances. He gave three explanations for the decision to save Continental. The first was the likely repercussions on the savings and loan industry. If Continental had failed, several large thrifts would have fallen with it, the FSLIC would have toppled immediately, and the entire thrift industry might have collapsed. In retrospect, a collapse in 1984 might have cost $20 billion to clean up instead of the $200 billion six or seven years later, but no one dreamed that the problem would reach this scale. Second, several other large banks were in trouble as well. There would have been chaos throughout the banking system and a number of big bank failures had Continental failed, and the FDIC did not have the money or the people to handle that. A third reason was that 2,500 small banks in the Midwest carried over $6 billion in uninsured deposits at Continental, so the chaos following a Continental collapse would have extended quite widely.

But, although the Continental Illinois decision seemed right to Isaac at the time, he continued to believe that "too big to fail" is an inappropriate concept. The notion can be avoided if the country develops rules that impose discipline on the financial system in advance of crisis.

Taylor agreed with the decision to save Continental Illinois, but he believed that it could have been done in such a way as to avoid spreading the doctrine of "too big to fail." The rescue had started as a managed liquidation, but then the government essentially became the owner. It would have been much better had the liquidation been continued until the assets were reduced to a fairly insignificant level and then this residue been sold to another party. Taylor added that the decision to bail out the holding company's creditors had actually saved the government money because the holding company's assets outside the bank

were clearly greater than its liabilities. By bailing out the creditors, this extra value went to the FDIC, not to the creditors.

Poole suggested that the risk of bank runs makes the notion of "too big to fail" a sensible one for large banks. Although these banks might behave with more discipline if they thought that they would be allowed to fail, even the most disciplined bank has a lot of short-dated liabilities and can run into unforeseeable problems. Allowing uninsured depositors to lose their deposits does not get to the problem of disruption of the overall monetary system. So a policy of letting large banks fail poses too big a risk to the system to be very credible in advance.

Poole argued that deposit insurance should be extended to all liabilities called deposits but that there should also be more uninsured capital at banks, particularly long-dated capital such as equity or ten-year subordinated notes.

Isaac clarified his views of the proper role of insurance: he thought that demand accounts should be insured in full and other accounts up to $100,000. Deposits greater than $100,000, however, should be exposed to some loss when a bank fails; this will not seriously undermine the financial system. If it were announced now that this policy will be implemented in five years, bank capital ratios would rise substantially, balance sheets would be handled more conservatively, and banks would maintain more liquidity. These rules would allow the market to do the job of disciplining these institutions.

Poole noted that, before deposit insurance was instituted, there had been recurrent banking panics that involved some of the very largest banks. It is not clear why the environment would be permanently different under Isaac's policy; in fact, the whole history of banking since deposit insurance was instituted makes it likely that many banks will believe that, when push comes to shove, the authorities will not allow them to fail.

Isaac said that the biggest banking panic was in 1929–33 and that there were not a lot of failures at the big banks. Most of the banks that failed were small, and deposit insurance was created so that the small depositor would continue to do business at uneconomically small banks. The big banks were opposed to deposit insurance; they wanted nationwide branching and a restructuring of the industry instead.

William Rhodes observed that most senior bankers have strong opinions today about the "too big to fail" doctrine but that, when deposit insurance was increased to the $100,000 level, most of them were indifferent. That is to say, the banking community cares about the issue now but did not focus on it when relevant policies were being established several years ago.

Michael Mussa said that the country has a general problem with letting an enterprise fail. This arises not only with the thrifts and with Continental and other banks but also with the Pension Benefit Guarantee Corporation. When a firm that has a pension plan gets in trouble and can no longer make the payments, it receives a dispensation allowing it to stop paying its pension insur-

ance premiums—an insane way to run an insurance system in Mussa's view. The same rationale prevented effective action on the thrifts at an earlier time, and it is a difficulty that we have with all the disguised liabilities of the government. It is tough to decide just to kill an institution off.

Taylor closed by saying that the government's will should be strengthened to kill off these organizations. It may not be possible to do so at the expense of the depositors, but, if a firm cannot survive in the marketplace, it should be taken out of the marketplace.