THE SAVINGS AND LOAN RESCUE OF 1989: **CAUSES AND PERSPECTIVE** George G. Kaufman

Working Paper Series Issues in Financial Regulation Research Department Federal Reserve Bank of Chicago November, 1989 (WP-89-23)

THE SAVINGS AND LOAN RESCUE OF 1989: CAUSES AND PERSPECTIVE

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In August 1989, Congress enacted the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) both to halt the cascading crisis in the thrift industry and to prevent such a crisis from occurring again. Among other features, the Act provides about \$115 billion for liquidating or reorganizing insolvent savings and loan associations. This represents by far the largest single government financial assistance to any economic sector, dwarfing the earlier "bailouts" of New York City in 1975 and of Chrysler in 1979 by a factor of some 50 and 80, respectively.

Causes of the Crisis

In the 1980s, many savings and loan associations experienced large losses that reduced the market value of their assets below that of their deposits. As a result, they experienced negative economic net worth and were economically insolvent so that they could not repay their depositors in full and on time. However, because both the institutions and their regulators generally maintain accounting records on a historical cost or book value

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basis, which does not necessarily force recognition of losses as they occur, most of the institutions were not declared insolvent at the time.

However, most of the deposits at the insolvent, as well as at the solvent, savings and loans were \$100,000 or less and therefore fully insured by the Federal Savings and Loan Insurance Corporation or FSLIC (which was the predecessor of the Savings Association Insurance Fund or SAIF), the negative economic net worth at insolvent institutions represented a liability of FSLIC. Indeed, it was FSLIC's guaranty of these deposits that prevented a depositor run both on these institutions and on the industry as a whole. As may be implied from its sheer magnitude, the causes of the crisis were many and complex and there is enough blame to spread some around to almost all the parties involved.

The underlying origins of the problem lie in the stringent regulation of the thrift industry since 1933. The regulation forced institutions to assume both substantial interest rate risk, by restricting them to making mostly long-term fixed-rate residential mortgage loans financed by short-term deposits and substantial credit risk, by restricting them to making mostly residential mortgages in their local markets. Thus, many were unable to diversify sufficiently either across product lines or geographically. As many studies in the 1960s and 1970s indicated, the industry was a time bomb waiting to go off. In the 1980s it did!

The sharp rise in interest rates in the late 1970s and early

1980s greatly increased the institutions' cost of funds, without increasing revenues from mortgage loans commensurately. As a result, the institutions to suffered large losses. Indeed, by 1982, some two-thirds of the industry was economically insolvent with aggregate negative net worth of some \$100 billion. Some 85 percent of all institutions were unprofitable in 1982. At this time, a number of other forces came into play. Despite a prolonged fall in interest rates that greatly improved the solvency of the industry as a whole, these forces both worsened the crisis and delayed the adoption of effective remedies until it was too late.

- In 1980, as part of the Depository Institutions Deregulation and Monetary Control Act, the ceiling on federal deposit insurance was increased from \$40,000 to \$100,000 per account. This substantially reduced the number of depositors who had funds at risk and who were both able and motivated to exert discipline on their banks to prevent them from increasing their risk exposures.
- In order to both reduce disintermediation of deposits from savings and loan associations to money market funds that was eroding their deposit base when interest rates were high and provide depositors with a market return. Regulation Q ceilings on deposit rates were liberalized and eventually removed. This deregulation was a response to market forces

and permitted institutions to gain greater control of the deposit inflows by bidding for funds freely on the basis of rates.

- Advances in telecommunications and computer technology permitted quick and almost costless transfers of funds across great distances. Combined with both the higher insurance limits and the ability to pay high rates for deposits, this permitted individual institutions to attract large amounts of funds from anywhere in the country quickly. Many SLAs used the help of brokers, who gathered "brokered deposits" from distant places. As a result, institutions were able to expand their asset base manyfold, regardless of the financial strength of the institution. In contrast, before these new forces, deposit growth at individual institutions was generally restricted to funds available from the local market area and was more dependent on the institution's risk profile. For example, Western Savings Association in Dallas (Texas) expanded from \$34 million in 1982 to \$2 billion by the time it was declared insolvent in 1986. By that time, its losses were so great that its net worth was a negative \$1.4 billion. Moreover, the industry as a whole expanded rapidly, much more rapidly commercial banks, in hopes of "growing out" of its problems.
- o Sharp downturns occurred in the economies of some local

areas, particularly those dominated by energy or agriculture (e.g., Texas, Oklahoma, Louisiana), with adverse consequences for the values of residential and commercial real estate. As a result, mortgage defaults increased sharply and the prices of repossessed real estate decreased sharply.

In order to permit savings and loan associations diversify more and reduce their risk exposure, Congress, and in particular a number of states granted them the authority loans and investments other than long-term residential real estate loans, such as consumer commercial loans and equity investment in real estate Like the deregulation of deposit rate development. ceilings, deregulation of powers was a response to market forces. But, although good management used these new powers correctly, poor managements used them to increase rather than to decrease their risk exposures. This particularly likely when the institution was already or nearly insolvent, so that there was little if any of the owners' own equity funds at risk. If the venture succeeded, the institution kept all the gain. If the venture failed, the loss was effectively shifted to the FSLIC. Because by definition high risk ventures fail on average, the FSLIC However, risk-seeking assumed additional losses. institutions did not need to use the new powers to increase

their risks; most used their old powers to enlarge their interest rate or credit risk exposure. Some of the new powers did give these institutions the ability to take big risks faster and, because many regulators were not geared up to understand these powers, under cover of insufficient monitoring and smaller risk of being detected quickly.

The increase in SLA insolvencies and risk taking occurred at a time when the Federal Home Loan Bank System and FSLIC were not prepared for them. These agencies were geared to deal with the relatively calm and known environment of an earlier era. The sudden increases in allowable activities risk taking found them greatly understaffed, and undertrained, and underorganized. Some associations were not examined for three or four years and violations identified by field examiners frequently were not pursued by their supervisors and corrected. There was a major meltdown in surveillance, examination, and supervision. For example, in 1983 the Little Rock Federal Home Loan Bank, which was in the heart of the problem area, was moved to Dallas. Only 11 of the 48 members of the supervisory staff were willing to make the move. As a result, the annual number of examinations in this district declined from 261 in 1982-1983 to 183 in 1983-84 and 173 in 1984-85 before increasing again to 283 in 1985-86.

- Widespread fear existed among the public, policymakers and regulators that the failure of financial institutions was more damaging than the failure of other firms. This was so both because of perceived potential spill-over effects from financially sick to healthy institutions and possibly even beyond to the macroeconomy and because deposit and loan services are perceived to be special and the failure of a depository might reduce the availability of money and credit to the local community. Thus, there was a reluctance to reorganize existing insolvencies explicitly and an incentive to forbear their problems in the hope that they would recover solvency on their own. In addition, failures are viewed as a blackmark on the record of bank regulators, who are charged with maintaining bank safety and are partially evaluated on their ability to do so. This provided regulators with another incentive to postpone reorganization of insolvencies.
- As a result, the FHLBB progressively reduced capital requirements as the industry's capital declined. Even many book value insolvent institutions were permitted to continue to operate, with costly consequences for both other associations and FSLIC. Indeed 53 percent of all SLA failures resolved in 1988 had been insolvent on a GAAP basis for three or more years and nearly 70 percent had been insolvent this long on a tangible capital basis. Because

these institutions were insolvent or nearly so, they had incentives to increase their risk-taking. Moreover, many were generating insufficient revenues on their assets to pay interest on their deposits and meet their daily operating costs. 1 Thus, they required net inflows of funds to meet these commitments and offered high interest rates to outbid others for deposit funds. The deposit inflows were then used to pay deposit outflows, interest rates deposits, and even operating expenses - - a true "Ponzi scheme" of borrowing from Peter to pay Paul made possible by federal deposit insurance. (If only such insurance had been available to the original Charles Ponzi in 1920!) Moreover, the higher deposit rates forced competing institutions also to pay higher rates in self defense, increasing their costs and weakening them financially. The negative net worth of insolvent thrift institutions that were resolved in 1988 and 1989 averaged close to 40 percent of assets.

loans to make it impossible for an institution to generate sufficient current revenues to meet its current obligations. For example, if one assumes a loan rate of 10 percent, a deposit rate of 7 percent, operating costs of 2 percent of assets, and no nonearning assets or capital, the institution earns a 1 percent margin. The 1 percent margin can be wiped out by an increase in nonearning assets of only slightly more than 10 percent. This which would reduce revenues to below the 9 percent amount required to meet current expenses. Nonperforming asset ratios of 10 percent or more were frequent at Texas institutions in the later 1980s.

Massive fraud occurred at some institutions, particularly those purchased with minimal capital by promoters and real estate developers when they were already or nearly insolvent. Many of these owners/managers viewed the institutions as their own personal "piggy banks" and, among other things, falsified documentation to justify extending loans to themselves, their families, and their friends in amounts far in excess of either the economic value of the project being financed or the associated collateral. also made loans that provided for immediate interest prepayments, which were then reported as earnings to the association and used to pay dividends. In addition, some associations purchased fleets of jet aircraft for corporate travel and junkets; hired French chefs for their officers' dinning rooms; purchased yachts for entertaining themselves, friends, customers and politicians; financed vacation homes, club memberships, and other extravagances for their senior officers; purchased expensive art to decorate the offices and homes of their officers; and, treated their best customers to trips to far away places - - all first-class, of course. Both because of the infrequency of examinations and because of the reluctance of regulators to close institutions, the fraud frequently went undetected early and continued for several years. As a result, losses were substantial. In the particularly outlandish horror case of the (\$2 billion) Vernon Savings and Loan Association in Vernon, Texas, 96 percent of whose loans were in default when the institution was finally taken over by the regulators in 1987. Moreover, the other 4 percent were mostly deferred interest loans, on which the first interest payment date had not yet occurred. Therefore, they did not yet have the opportunity to be in default!

"Deregulation" does not mean no regulation at all. Ιt 0 implies a change from government regulation to market regulation, just as exists in unregulated industries. for market regulation to work effectively, market discipline must be permitted to function. This includes penalties for poor performance. However, as discussed above, policy makers were generally reluctant to permit some forms of market discipline to be applied, in particular, the liquidation or reorganization of institutions that had exhausted their net worth and had become economically insolvent. Thus, the reduction in government discipline from deregulation was not matched by a corresponding increase in market discipline. Moreover, the operation of federal deposit insurance in a new and more complex environment required more careful surveillance to protect the fund. Unfortunately, as noted above, both the FHLBB and FSLIC were caught unprepared and effectively reduced their monitoring activities. Combined, the failure to permit market discipline to replace the reduction in regulatory

discipline and the failure to step up surveillance constituted a sure-fire recipe for disaster.

Large political contributions were made by the thrift industry to Congress to postpone legislative action that would increase the cost to the industry through higher deposit insurance premiums or other contributions, would reduce its independence, or would bring about the removal of managers/owners of insolvent or near insolvent institutions. Because the dollar amounts at stake were so massive, contributions were extraordinarily large, Washington, D.C. standards. Contributions were made in packages of tens and even hundreds of thousands of dollars, rather than only the usual thousands of dollars. Congressmen, who may not have been fully aware either of the its severe technical roots of the problem or of consequences, acted on behalf of their constituents to delay potentially corrective legislative and regulatory actions. Such congressional behavior, possibly motivated by large contributions from the industry, was an important factor in the resignation of both Speaker of the House, James Wright and Democratic House Whip, Anthony Coelho in 1989 and tarnished the reputation of a number of other congressmen, including such well known senators as Alan Cranston, John Glenn, and Donald Riegle.

- The failure of Congress to respond quickly and provide O sufficient funds to enable the regulators to eliminate the negative net worth of insolvent institutions and reorganize them under new management, caused FSLIC to sell the institutions to new investors using less efficient techniques. This included the use of promissory notes on itself, granting of tax breaks, guaranteeing returns on assets, and waiving some regulatory requirements, such as minimum capital standards. Negotiations for these sales were complex and frequently carried out in secret with a limited number of bidders without public disclosure. Later announcements of these "deals" frequently gave the appearance of impropriety and caused sufficient public indignation to bring the program to a halt and discredit FSLIC and the Federal Home Loan Bank Board. This further reduced the effectiveness of the Board.
- The important role played by the SLAs in financing housing had created a close traditional relationship between the savings and loan industry and the Federal Home Loan Bank System, both directly and indirectly through Congress. As a result, the regulators frequently bent over backwards to avoid taking corrective actions that would penalize or embarrass the industry and which the industry opposed. The System frequently confused its role as regulator with that of cheerleader for the industry. This made it easier for

the Home Loan Bank System to conceal and coverup the true size of the crisis, its true causes, and the effective remedies until the deficit was of a size that made continued concealment embarrassing, if not impossible.

Provisions of the Act

As a result of the above developments, SLA losses and FSLIC's deficit, after first narrowing from near \$100 billion in 1981 to near zero by 1984, as interest rates declined, increased rapidly to some \$20 billion by year-end 1985, \$30 billion by year-end 1986, \$50 billion by year-end 1987, and more than \$100 billion again by early 1989. Until 1989, official estimates were substantially smaller, totaling some \$15 billion in 1987, \$30 billion in mid-1988 and only \$50 billion at year-end 1988. official understatement of the size of the problem is best evidenced by the \$11 billion allocated by Congress to recapitalize FSLIC in the Competitive Equality Banking Act (CEBA) enacted in mid-1987 in the expectation that it was sufficient to cure the problem. At that time, moreover, the thrift industry itself pursued a policy of concealing the magnitude of the problem from the public and acknowledged the deficit to be only about \$5 billion.

Finally, a combination of eventual recognition of the actual outrageous size of the problem, "horror" reports of massive fraud, perceptions of favoritism in the resolution of some insolvent institutions, and growing dissatisfaction with the

handling of the problem by the Federal Home Loan Bank System culminated in the introduction of legislation by the Bush Administration in early 1989 and its eventual enactment by Congress in August of the same year. Among other things, the multi-hundred page FIRREA:

- Raises some \$115 billion over three years from general Treasury revenues and, to a lesser extent, from increased assessments on depository institutions to permit the closing or sale of the worst insolvent institutions to stop the hemorrhaging. (Some \$40 billion of the total was to provide full faith and credit support to notes that FSLIC had already issued in earlier failure resolutions). Part of this amount is recorded on the federal budget and part off-budget and raised by a new Resolution Financing Corporation (REFCO). It should be noted that these funds represent a "bailout" of the depositors, not of the institutions, except to the extent that the managements responsible for the insolvencies are not replaced.
- Increases annual deposit insurance premiums on savings and loan associations from 0.208 percent (0.083 regular and 0.125 surcharge) to 0.23 in 1991, before lowering them to 0.18 in 1994 and to 0.15 in 1998. On banks, the premiums are raised from 0.083 percent to 0.12 in 1990 and to 0.15 in 1991.

- Reorganizes the Federal Home Loan Bank System and FSLIC.

 FSLIC is separated from the FHLB Board and reorganized as the Savings Association Insurance Fund (SAIF) within the FDIC. The chartering, regulatory, examination, and enforcement activities of the FHLB System are reorganized as the Office of Thrift Supervision (OTS) within the Treasury Department. This is similar to the structure of the Comptroller of the Currency. The Chairman of the FHLB Board becomes the Director of OTS.
- Reorganizes the FDIC to administer two deposit insurance funds, the new SAIF and a new Bank Insurance Fund (BIF). Both funds are explicitly supported by the full faith and credit of the federal government up to \$100,000 per account. The FDIC Board is expanded from three to five members, including the Comptroller, the Director of OTS, and three members appointed by the President.
- Requires savings and loan associations to maintain minimum 1 1/2 percent capital-to-asset ratios, excluding goodwill, and 3 percent capital ratios, including goodwill, by year-end 1989 with all goodwill phased out by year-end 1994. If these requirements are not met, deposit growth constraints and other sanctions may be imposed until the association achieves the required minimum capital ratios.

- o Requires savings and loan associations to increase their emphasis on residential mortgage lending. The powers of state chartered savings and loan associations are restricted generally to those permitted federally chartered associations and investments in real estate equity and junk bonds by all SLAs must generally be phased out by mid-1994.
- o Permits savings and loan associations to be acquired by commercial bank holding companies immediately and to be operated as thrifts or converted into commercial banks, subject to SAIF insurance premiums.
- Transfers responsibility for managing and disposing of most insolvent associations to a new temporary Resolution Trust Corporation (RTC), managed by the FDIC and subject to a policy oversight board of five members, consisting of the Secretaries of the Treasury and Housing and Urban Development (HUD), the Chairman of the Federal Reserve Board, and two members appointed by the President. The FDIC Board of Directors will also be the RTC Board, and the Chairperson of the FDIC is the Chairperson of the RTC. The RTC will exist until year-end 1996. During its existence, it is expected to manage many hundreds of insolvent associations pending their liquidation or return to the private sector by sale.

- Reorganizes the financing and thrift institution services activities of the FHLB System as the Federal Housing Finance Board under a five-person board, including the Secretary of HUD and four others appointed by the President. The FHFB will operate the existing 12 district Home Loan Banks. The banks can lend both to savings and loan associations as before and now also to banks that hold at least 10 percent of their assets in residential mortgages.
- o Makes it easier and quicker for the FDIC to suspend deposit insurance of insolvent institutions.
- o Separates the Federal Home Loan Mortgage Corporation (Freddie Mac) from the Federal Home Loan Bank System and reorganizes it as a quasi-private entity with 5 public board members appointed by the President and 13 private board members elected by the shareholders.

Future

The long-run effects of the Act are uncertain. At minimum, the regulators obtained additional funds to resolve the worst of the insolvencies, thereby both reducing ongoing losses substantially and reducing the deposit rate premiums paid by institutions as a result of the bidding for deposit funds by insolvent associations. But the new funds may be insufficient to absorb all the outstanding losses and provides little cushion

either for potential problems at marginally capitalized institutions or for problems at all institutions if interest rates rise or another Texas develops.

Although the Act requires minimum capital standards and increases deposit insurance premiums, it does not reduce greatly the existing incentives for insured depository institutions to take excessive risks. The capital standards are not tough new Indeed, they are considerably lower standards as advertized. than they were in 1980, before the crisis was generally recognized, and during a more stable financial environment, and are still lower than they would be in the absence of such Moreover, reorganization and recapitalization of insurance. institutions when they breach the minimum ratios are not mandatory and insurance premiums are not scaled to risk. Indeed, at least in part as a result of the lower capital requirements mandated for thrifts, the Comptroller of the Currency has since proposed changes in the capital standards for national banks that may reduce the minimum requirements and might permit some large banks to operate with negative economic net worth. Deja vu one more time.

The Act does call for an 18 month study of deposit insurance by the Treasury. But, as almost everything that anyone ever wanted to know about deposit insurance has already been studied to death in recent years, this provision basically provides for additional time. Because the public pressure on Congress to make significant changes at that time are likely to be less than they

were at the height of the crisis, this delay may lead to inaction. Moreover, by restricting the product powers of thrifts, the Act reduces their ability to diversify both their interest rate and credit risks and pushes them back towards the straight-jacket conditions that gave rise to the insolvency crisis in the first place in the early 1980s.

Although the Act "punishes" the FHLB System and attempts to break-up the "cozy" relationship between the System and the industry, it did not significantly change the incentives for the regulators to act differently. Discretionary actions that permit forbearance are still permitted, nor is the OTS likely to be immune from congressional or industry influence by being located in the Treasury Department. Indeed, it may be viewed as becoming an "administration" agency rather than an "independent" agency as before, and therefore more directly in the line of political pressures. Moreover, the more discretion is granted the regulators, the more vulnerable they are to political pressures.

It is too early to sort out all the longer-term implications of FIRREA and to conclude with much certainty whether the SLA structure is now fixed and unlikely to go astray again. That is, will the "reforms" in the title of the Act be sufficient to guarantee the promised "recovery". If they are not, the taxpayer is likely to ante up more money in years to come and more of the cost of the clean-up will be pushed off onto subsequent generations.

References

- William M. Adler and Michael Binstein, "The Speaker and the Sleaze" <u>Regardie's Magazine</u>, December 1987, pp. 51-150.
- 2. James R. Barth, Philip F. Barthomolomew, and Carol J. Labich, "Moral Hazard and the Thrift Crisis: An Analysis of 1988 Resolutions", <u>Proceedings of a Conference on Bank Structure and Competition</u> (Federal Reserve Bank of Chicago) (Forthcoming)
- 3. James R. Barth and Michael G. Bradley, "Thrift Deregulation and Federal Deposit Insurance," <u>Journal of Financial Services Research</u>, September 1989, pp. 231-260.
- 4. Paul Duke Jr., "How Texas S&L Grew Into A Lending Giant and Lost \$1.4 Billion," <u>Wall Street Journal</u>, April 27, 1989, pp. A1, A10.
- 5. Roy J. Harris Jr., "Keating, Under Attack in Lincoln S&L Mess, Blames the Regulators", <u>Wall Street Journal</u>, July 18, 1989, pp. Al, A4.
- 6. Edward J. Kane, <u>The S&L Insurance Mess: How Did It Happen?</u>, (Washington, D.C.; Urban Institute Press, 1989).
- David Maraniss and Rick Atkinson, "The Texas S&L Meltdown", <u>Washington Post National Weekly</u>, June 26-July 2, 1989, pp. 6-8.
- 8. _____, "Politics and the Texas Thrift Scandal", Washington Post National Weekly, July 3-9, 1989, pp. 10-12.
- 9. Bill Powell and Daniel Pedersen, "Loan Stars Fall in Texas", Business Week, June 20, 1988, pp. 42-45.
- 10. "The S&L Mess And How to Fix It", <u>Business Week</u>, October 31, 1988, pp. 130-140.
- 11. "The Thrift Bailout: Special Report", American Banker, August 10, 1989, Supplement.
- 12. "This is a Ticking Time Bomb", <u>Wall Street Journal</u>, June 13, 1989, p. A16.
- 13. Larry J. White, "The Problems of the FSLIC: A Policy Maker's View," <u>Contemporary Policy Issues</u> (Forthcoming)

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