

## 5. Role of Deposit Insurance in Bank Failures

*Entries in this section focus on bank failures and the role deposit insurance played in those failures: the underlying causes of bank crises, failed-bank resolution methods, bank closure rules, the costs of failed-bank resolutions, and historical perspectives on the U.S. savings and loan debacle and the commercial bank crisis of the 1980s and early 1990s.*

Alston, Lee J., Wayne A. Grove, and David C. Wheelock. 1994. Why Do Banks Fail? Evidence from the 1920s. *Explorations in Economic History* 31, no. 4:409–31.

This paper examines the causes of rural bank failures during the 1920s using a newly created state-level data series. By focusing on rural banks, the authors are able to investigate the impacts of agricultural distress and government policies on the class of banks accounting for 80 percent of the failures in the decade. Failure rates were highest where farm acreage and land values had increased the most before 1920 because these regions suffered the worst agricultural distress subsequently. Agricultural distress caused more bank failures in states with deposit insurance systems, suggesting that insurance encouraged banks to increase risk as their net worth declined. (©1999 EconLit)

Baer, Herbert, and Daniela Klingebiel. 1995. Systemic Risk When Depositors Bear Losses. In *Research in Financial Services: Private and Public Policy*, vol. 7, edited by George G. Kaufman, 195–302. JAI Press.

There is surprisingly little evidence on the macroeconomic effect of imposing losses on depositors. This article, using case studies, presents some empirical evidence on the links between the treatment of depositors of insolvent institutions and subsequent macroeconomic performance. The five episodes studied are Estonia, 1992; Argentina, 1989; Malaysia, 1986; Japan, 1946; and the United States, 1933.

Barth, James R. 1991. *The Great Savings and Loan Debacle*. American Enterprise Institute.

Describes the facts in the case of the widespread failure of savings and loan institutions during the 1980s, arguing that the major blame rests with government's failure to reform the way in which discipline is imposed on U.S. depository institutions. Chronicles the growth and development of savings and loans from their origin in 1831 to the modern crisis years beginning in 1980. Discusses the events of the 1980s, arguing that the industry was actually insolvent by the beginning of the decade, before deregulation. Evaluates the August 1989 legislation designed to resolve the savings and loan crisis and prevent a recurrence, suggesting that the legislation reduces the value of the savings and loan charter, while not actually correcting the moral hazard inherent in the structure of the federal deposit insurance system. Describes the structure of the federal deposit insurance system and the way in which the problem of moral

hazard arises. Suggests lessons that apply to all federally insured depository institutions. (©1999 EconLit)

Barth, James R., Philip F. Bartholomew, and Michael G. Bradley. 1990. Determinants of Thrift Institution Resolution Costs. *Journal of Finance* 45, no. 3:730–54.

This article examines the costs imposed by the resolutions of failed thrift institutions in the period 1980–1988. The authors begin by presenting a simple model that specifies the factors that explain thrift resolution costs. They then test the model using a comprehensive data set that allows some of the econometric problems encountered in earlier studies to be avoided. The empirical evidence suggests that the model that explains resolution costs in the late 1980s is significantly different from the model for either the middle or the early 1980s. This evidence is consistent with the changing nature of the thrift crisis and with changes in the regulators' closure rule. The authors maintain, moreover, that the econometric evidence is consistent with the hypothesis that, for troubled institutions, tangible net worth systematically understates market-value net worth. In addition, the evidence reveals the importance of including time effects as well as institution effects as determinants of the cost of resolution.

Barth, James R., Philip F. Bartholomew, and Peter J. Elmer. 1997. The Value of Tax Benefits and the Cost of Liquidating versus Selling Failed Thrift Institutions. *Journal of Economics and Finance* 21, no. 2:3–11.

This article examines the 205 resolutions of insolvent thrifts that occurred in 1988 and explores the determinants of the cost savings that resulted when 179 of the institutions were sold through assisted acquisitions rather than liquidated. According to the authors' analysis, several factors were found to be significant determinants of the cost savings. Among these were level of core deposits, average branch size, mortgage servicing rights, tax benefits specific to the purchase contracts, and type of acquirer.

Barth, James R., R. Dan Brumbaugh Jr., and Robert E. Litan. 1991. Bank Failures Are Sinking the FDIC. *Challenge* 34, no. 2:4–15.

The authors maintain that not since the creation of deposit insurance in 1933 have the U.S. banking industry and its deposit insurer been as troubled as they have been in recent (pre-1991) years. Moreover, the losses are expected to continue, and it is the judgment of the authors that total bank resolution costs through 1994 could exhaust the resources of the bank insurance fund. The authors propose to federal policymakers three options for preventing an explosion of deposit insurance costs: (1) they can raise bank capital standards even higher; (2) they can narrow the list of bank-eligible assets; and (3) they can create a more automatic system of regulatory intervention. Ideally, such a system would be supplemented with market-like devices to impel regulators to act in a timely fashion to prevent weak banks from taking more risks. This last option is preferred by the authors and discussed in greater detail.

Barth, James R., and Robert E. Litan. 1998. Preventing Bank Crises: Lessons from Bank Failures in the United States. In *Preventing Bank Crises: Lessons from Recent Global Bank Failures*, Proceedings of a conference co-sponsored by the Federal Reserve Bank of Chicago and the Economic Development Institute of The World Bank, edited by Gerard Caprio Jr., William C. Hunter, George G. Kaufman, and Danny M. Leipziger, 133–79. The World Bank.

This paper explores the relationship between banking problems and bank regulation by examining the banking problems that occurred in the United States during the period 1980–96. It has been well documented that among the many factors responsible for the problems, bank regulation is an important one. In particular, overly restrictive laws and regulations helped expose thousands of depository institutions to substantial interest-rate risk in the late 1970s and early 1980s. Subsequently, especially in the early to middle 1980s, lax regulation and supervision enabled many inadequately capitalized institutions to grow rapidly by engaging in high-risk activities.

Blalock, Joseph B., Timothy J. Curry, and Peter J. Elmer. 1991. Resolution Costs of Thrift Failures. *FDIC Banking Review* 4, no. 1:15–26.

The authors examine the determinants of resolution costs for 97 thrifts resolved by the Federal Savings and Loan Insurance Corporation (FSLIC) from 1984 to 1987, and conclude that the primary determinant of resolution costs was the asset mix of the institutions. “High-risk” assets such as land and development and construction loans are found to increase resolution costs, whereas the operation of a more traditional franchise is found to reduce resolution costs.

Bovenzi, John F., and Maureen E. Muldoon. 1990. Failure-Resolution Methods and Policy Considerations. *FDIC Banking Review* 3, no. 1:1–11.

The authors examine the FDIC’s traditional methods of handling bank failures, and detail the Corporation’s policy objectives and concerns. They discuss the trade-offs that exist among the sometimes-competing policy goals, and the ways in which various failure-resolution methods affect the attainment of these goals.

Brock, Philip L., ed. 1992. *If Texas Were Chile: A Primer on Banking Reform*. Institute for Contemporary Studies.

This book publicizes the paradox that when a bank goes out of business, financial uncertainty and instability increase, but when poorly performing, money-losing banks are prevented from going out of business, problems are compounded. Rather than attempt either to evade or to solve this paradox, this volume accepts it as an inevitable catch-22. It also recognizes that banks that should go out of business are always allowed to do so eventually, albeit at greater financial, economic, and social cost than would have been incurred had closure not been delayed. Thus, the volume explores the manner in which bank closures that should occur, will occur—at the earliest possible date, and with the least possible damage.

Brown, Richard A., and Seth Epstein. 1992. Resolution Costs and Bank Failures: An Update of the FDIC Historical Loss Model. *FDIC Banking Review* 5, no. 1:1-16.

The authors construct a financial model designed to measure the losses on assets placed into receivership by the FDIC. They then apply the Corporation's accounting data to the model in order to evaluate actual loss experience in receiverships between the years 1986 and 1990. In extending and updating previous work by Bovenzi and Murton (1988), they derive separate loss measurements for six distinct asset types. They also use a cost accounting model to estimate expenses for each of the asset types. From these loss calculations they develop a statistical model to estimate losses in future bank failures as a function of the relative proportion of performing and nonperforming loans in the institutions' portfolios.

Brumbaugh, R. Dan Jr. 1993. *The Collapse of Federally Insured Depositories: The Savings and Loans as Precursor*. Garland.

Presents an econometric analysis of the savings and loan crisis as it developed in the United States in the early 1980s. Provides an overview of the institutional, regulatory, and historical development of federally insured depositories. Investigates the causes of the failure and insolvency of savings and loans from 1981 through 1984 and the causes of the losses imposed on the Federal Savings and Loan Insurance Corporation. Describes the subsequent developments involving federally insured depositories and deposit insurance that represent the ongoing decline of the depositories and the breakdown of the deposit-insurance system. Based on the author's doctoral dissertation submitted to George Washington University in February 1986. (©1999 EconLit)

Buck, Cody. 1992. *The ABC's of FDIC: How to Save Your Assets from Liquidation*. CoSTARR.

The author, who once worked at the FDIC, explains some of the methods and procedures that were used to liquidate banks: (1) how the FDIC determined the minimum amount it would accept in satisfaction of debt; (2) what instructions were given to FDIC Account Officers about contacting bank customers; (3) how customers can negotiate with the FDIC in terms that the Corporation will understand; (4) what the FDIC organizational structure is and what amount of authority is entrusted to the respective levels; and (5) how real estate and loans can be bought from the FDIC.

Calomiris, Charles W., and Joseph R. Mason. 1997. Contagion and Bank Failures during the Great Depression: The June 1932 Chicago Banking Panic. *American Economic Review* 87, no. 5:863-83.

The authors examine the social costs of asymmetric-information-induced bank panics in an environment without government deposit insurance. Their case study is the Chicago bank panic of June 1932. The authors compare the ex ante characteristics of panic failures and panic survivors. Despite temporary confusion about bank asset quality on the part of depositors during the panic, which was

associated with widespread depositor runs and bank stock price declines, the panic did not produce significant social costs in terms of failures among solvent banks. (©1999 EconLit)

Carns, Frederick S., and Lynn A. Nejezchleb. 1992. Bank Failure Resolution, the Cost Test, and the Entry and Exit of Resources in the Banking Industry. *FDIC Banking Review* 5, no. 2:1–14.

FDIC cost considerations determine the “minimum acceptable bid” for a failed-bank franchise. Thus, for example, the FDIC’s statutory cost test may dictate a purchase-and-assumption transaction even for an institution with negative franchise value. In competitive markets, however, the decision whether to continue operations depends upon franchise value alone. Using failed-bank data, the authors find that the cost test may have interfered with the efficient adjustment of resources in a sizable percentage of recent cases. Although this conflict cannot be completely avoided, the authors argue that a more explicit consideration of resource-adjustment effects could help to strike an appropriate balance between the conflicting methods for determining the viability of a franchise.

Cebula, Richard J. 1993. The Impact of Federal Deposit Insurance on Savings and Loan Failures. *Southern Economic Journal* 59, no. 4:620–28.

This article tests empirically the hypothesis that the existence of federal deposit insurance actually raised the S&L failure rate in the years before 1990. The author develops a model that includes federal deposit insurance and a variety of factors alleged to have induced the S&L crisis. His focus is on two measures of the S&L failure rate: (1) the percentage of federally insured S&Ls that failed, and (2) the absolute number of federally insured S&Ls that failed.

Cebula, Richard J. 1995. The Impact of Federal Deposit Insurance on Savings and Loan Failures: Reply [to Saltz comment in same issue]. *Southern Economic Journal* 62, no. 1:256–58.

This paper examines empirically the impact of federal deposit insurance on the failure rate of S&Ls. The model tests whether there is any influence of such insurance on the riskiness of S&L lending practices and, hence, on the profitability and solvency of S&Ls. Using data for the period 1963–89, it is found that federal deposit insurance may in fact be a very significant contributor to the S&L crisis of years. (©1999 EconLit)

Cebula, Richard J., and Willie J. Belton. 1997. An Empirical Note on the Impact of Federal Deposit Insurance on Bank Failures in the U.S. *International Advances in Economic Research* 3, no. 3: 281–87.

This study empirically examines the impact of federal deposit insurance coverage on the failure rate of commercial banks in the U. S. over the 1963–91 period. The analysis allows for the potential bank failure rate impact of the growth rate of real GDP, the real prime lending rate, the real cost of funds, and the commercial bank tangible capital-to-asset ratio, while measuring federal deposit insurance coverage

as the percentage of deposits at federally insured banks that was covered by federal deposit insurance. The instrumental variables' estimates indicate that the greater the extent of federal deposit insurance coverage, the higher the bank failure rate. (©1999 EconLit)

Cebula, Richard J., Willie J. Belton Jr., James B. Barth, and Ray Y. Chou. 1994. Deposit Insurance and Bank Failures: A Preliminary Analysis. In *Proceedings of the American Statistical Association (AMSTAT) Annual Meetings: Business and Economics Statistics*, 293-97. AMSTAT.

This study empirically investigates whether federal deposit insurance coverage has acted to influence the failure rate of commercial banks (CB). After accounting for such factors as recession, the real CB cost of funds and the real lending rate, the CB capital-to-asset ratio, and the increased competition of the 1980s and 1990s, the estimations in this study imply that federal deposit insurance has acted to increase the CB failure rate, although this effect appears to have been observably stronger for the more competitive 1980s and 1990s than for the previous period.

Chari, V. V. 1989. Banking without Deposit Insurance or Bank Panics: Lessons from a Model of the U.S. National Banking System. *Federal Reserve Bank of Minneapolis Quarterly Review* 13, no. 3:3-19.

This paper is a study of bank panics under the U.S. National Banking System in 1864-1913. During this period, bank deposits in the United States, like those in Great Britain and Canada, were not insured by the government. Unlike the United States, however, neither of those countries had any bank panics. The U.S. panics were caused essentially by two unique features of the U.S. banking system: prohibitions on bank branching and pyramiding of bank reserves. In the paper, a model which includes these features is constructed, and it is shown that bank panics can occur even though all agents are rational. In this model, bank panics can be eliminated by a combination of reserve requirements, central bank loans, and occasional restrictions on cash payments by banks. The conclusion is that to eliminate bank panics, deposit insurance is not necessary. (©1999 EconLit)

Chen, Yehning. 1994. The Role of Information Externalities in Bank Runs. Ph.D. diss., University of California at Los Angeles.

This dissertation provides an explanation of bank runs. Bank runs are depositors' response to unfavorable information about their banks. Since there is a moral-hazard problem that affects the incentives of bank managers and depositors, a bank run can be a mechanism for disciplining bank management—by liquidating banks that have made unwise and unprofitable investments. However, monitoring banks by runs may be inefficient. The first-come, first-served rule in the deposit contract creates a negative payoff externality among depositors and gives them excessive incentive to withdraw their funds. Even if it is assumed that depositors always choose Pareto dominant equilibrium, bank runs may be triggered by very noisy early information even when depositors know that more precise information

will be available in the near future. By reducing the payoff externality, deposit insurance can induce depositors to use their information more efficiently and can make runs effective mechanisms for monitoring banks.

Chu, Kam Hon. 1996. Is Free Banking More Prone to Bank Failures Than Regulated Banking? *Cato Journal* 16, no. 1:47–62.

This article empirically investigates the relative stability of three different banking regimes—a free banking system, a regulated banking system, and a regulated banking system with a flat-premium deposit insurance scheme—for the period 1935–1964. These regimes are represented by the Hong Kong, Canadian, and U.S. banking systems, respectively. The paper begins with a summary of major views on the relationships between banking regulations, deposit insurance, and bank failures. It then briefly describes the institutional and economic backgrounds of the three banking systems during the period studied. Last, it presents the empirical results comparing the relative stability of the alternative banking regimes.

Cochran, Bruce, Lawrence C. Rose, and Donald R. Fraser. 1995. A Market Evaluation of FDIC Assisted Transactions. *Journal of Banking and Finance* 19, no. 2:261–79.

This study updates and extends the literature regarding Federal Deposit Insurance Corporation purchase and assumption transactions. Unlike voluntary mergers, the results indicate that winning bidders do not overpay. Moreover, our results indicate that acquiring banks' undertaking large failed bank transactions experienced large wealth transfers. Excess returns may be explained by the synergy hypothesis or over subsidization hypothesis. The paper concludes that excess returns are not driven by scale or scope economies; evidence is consistent with diversification gains or the over subsidization hypothesis. It also appears that well-capitalized acquirers received preferential treatment. (©1999 EconLit)

Cole, Rebel A. 1993. When Are Thrifts Closed? An Agency-Theoretic Model. Finance and Economics Discussion Series, no. 93-37. Board of Governors of the Federal Reserve System.

This study examines the determinants of both book-value insolvency and regulatory closure in the thrift industry. Agency theory suggests that the determinants of insolvency and closure are a function of conflicts between shareholders and creditors, shareholders and managers, and regulators and taxpayers. The theory suggests that certain thrift attributes may have different effects upon insolvency and closure because prompt closure of insolvent institutions may not be in the regulators' best interests. In this study, both thrift insolvency and thrift closure are modeled as functions of two broad risk factors: operating risk and agency risk. Using a bivariate probit model to jointly examine determinants of insolvency and closure, the analysis finds evidence consistent with the existence of both moral hazard–induced behavior by thrift owners and expense-preference behavior by thrift managers. The results also show that agency conflicts between regulators and taxpayers are important in explaining why some thrifts were closed while others were not.

Cole, Rebel A., and Robert A. Eisenbeis. 1996. The Role of Principal-Agent Conflicts in the 1980s Thrift Crisis. *Real Estate Economics* 24, no. 2:195-218.

Agency theory suggests that many of the costs incurred by the taxpayer during the 1980s thrift crisis were the result of conflicts between principals and their agents. This study models the costs associated with three distinct types of agency conflicts involved in closing an insolvent thrift—conflicts between creditors and owners, between owners and managers and between taxpayers and government officials. Using a model that controls for sample-selection bias, the study presents strong evidence that thrift owners effected wealth transfers from creditors by undertaking high-risk investments and that government officials pursued policies that increased losses to the thrift deposit insurance fund which ultimately were funded by the taxpayer. The results do not show that managers effected wealth transfers from owners through expense-preference behavior but rather that inefficient management increased the losses of the deposit insurance fund. (©1999 EconLit)

Cole, Rebel A., and Jeffery W. Gunther. 1995. Separating the Likelihood and Timing of Bank Failure. *Journal of Banking and Finance* 19, no. 6:1073-89.

The authors use a split-population survival-time model to separate the determinants of bank failure from the factors influencing the survival time of failing banks. Basic indicators of a bank's condition, such as capital, troubled assets, and net income, are important in explaining the timing of bank failure. However, many of the other variables typically included in bank-failure models, such as measures of bank liquidity, are not associated with the time to failure. The results also suggest that the closure of large banks is not delayed relative to the closure of small banks.

Cottrell, Allin F., Michael S. Lawlor, and John H. Wood, eds. 1995. *The Causes and Costs of Depository Institution Failures*. Kluwer Academic Publishers.

This volume brings together the following papers on the topic of deposit insurance, failures, and moral hazard: "Deregulation Gone Awry: Moral Hazard in the Savings and Loan Industry," by Rebel A. Cole, Joseph A. McKenzie, and Lawrence J. White; "Underlying Determinants of Closed-Bank Resolution Costs," by William P. Osterberg and James B. Thomson; "Federal Reserve Lending to Banks That Failed: Implications for the Bank Insurance Fund," by R. Alton Gilbert; "The Savings and Loan Debacle: Moral Hazard or Market Disaster?" by Gregory A. Lilly; "What Are the Connections between Deposit Insurance and Bank Failures?" by Allin F. Cottrell, Michael S. Lawlor, and John H. Wood.

Cowan, Charles D. 1997. Statistical Sampling as a Management Tool in Banking. *FDIC Banking Review* 10, no. 1:17-23.

The author describes the use of sampling in a financial setting and, to illustrate, focuses on some of the methods used by the FDIC to value assets in liquidation. The author finds that using sampling—as opposed to valuing each asset—

achieves significant cost savings while ensuring the accuracy and quality of the results.

Deposit Insurance and U.S. Bank Failures. 1994. *International Currency Review* 21, no 1–2:30–47, 54.

This article draws from a February 1991 U.S. Treasury Department work entitled “Modernizing the Banking System” to illustrate the dangers of mishandling bank failures and the ingenuity of the authorities in dissipating the dangers that failures represent for stability. The article discusses the cost of bank runs, bank failures, bailing out banks, bridge banks, and the treatment of parties involved in U.S. bank failures.

England, Catherine. 1991. Deposit Insurance and the Banking Crisis in the 1990s. In *Proceedings of the Sixth Annual Meetings of the Pennsylvania Economic Association*, edited by Stanley G. Long, 203–17.

The author posits that consumers and businesses depend less on banks today than they ever have. However, it is difficult to imagine how the requisite structural adjustments will be made without imposing large and unnecessary costs on U.S. taxpayers and the U.S. economy. Banks’ traditional importance (psychological as well as financial) in the U.S. economy has seemingly paralyzed policymakers confronted with increasing evidence of the industry’s decline. The author hopes they will be able to shake off this paralysis in time to save the still-healthy portions of the banking industry and at the same time protect taxpayers from another massive bailout.

Federal Deposit Insurance Corporation (FDIC). 1997. *History of the Eighties—Lessons for the Future: An Examination of the Banking Crisis of the 1980s and Early 1990s*. FDIC.

Two volume set presents the results of a study of recent banking crises conducted by the FDIC to identify areas in which the agency’s mission could be better accomplished in the future. Volume 1 contains thirteen papers discussing the banking crises of the 1980s and early 1990s and their implications (George Hanc); banking legislation and regulation (Lee Davison); commercial real estate and the banking crises of the 1980s and early 1990s (James Freund, Timothy Curry, Peter Hirsch, and Theodore Kelley); the savings and loan crisis and its relationship to banking (Alane Moysich); the LDC debt crisis (Curry); the mutual savings bank crisis (Moysich); Continental Illinois and the “too big to fail” policy (Davison); banking and the agricultural problems of the 1980s (Brian Lamm); banking problems in the Southwest (Lamm and John O’Keefe); banking problems in the Northeast (Lamm and O’Keefe); banking problems in California (Victor Saulsbury and Curry); bank examination and enforcement (Curry); and off-site surveillance systems (Jack Reidhill and O’Keefe). Volume 2 contains the proceedings of a symposium held to discuss the preliminary results of the FDIC’s study of recent banking crises. Volume 1 contains a bibliography and an index. (©1999 EconLit)

Federal Deposit Insurance Corporation (FDIC). 1998a. The Banking Crises of the 1980s and Early 1990s: Summary and Implications. *FDIC Banking Review* 11, no. 1.

This special issue of the *Review* contains the introductory chapter from the book *History of the Eighties—Lessons for the Future: An Examination of the Banking Crisis of the 1980s and Early 1990s*, which was researched and written by staff of the Division of Research and Statistics of the FDIC. The analysis presented in this chapter deals with (1) the factors underlying the rapid rise in the number of bank failures; (2) the regulatory issues raised by this experience; (3) questions that remain open despite the legislative and regulatory remedies adopted between 1980 and 1994; and (4) concluding comments.

Federal Deposit Insurance Corporation (FDIC). 1998b. *Managing the Crisis: The FDIC and RTC Experience, 1980–1994*. FDIC.

Examines the manner in which the Federal Deposit Insurance Corporation (FDIC) and the Resolution Trust Corporation (RTC) handled the bank and thrift failures occurring during the U.S. banking crisis of the 1980s and early 1990s. Part 1 documents the evolution of the methods used to resolve failed institutions, pay depositors their money, and dispose of the large volume of assets that remained. Part 2 presents case studies of ten significant bank failures: First Pennsylvania Bank; Penn Square Bank; Continental Illinois National Bank and Trust Company; First City Bancorporation of Texas; First Republic Bank Corporation; MCorp; Bank of New England Corporation; Southeast Banking Corp.; Seven Banks in New Hampshire; and CrossLand Savings. Volume 2 consists of the proceedings of the symposium “Managing the Crisis: The FDIC and RTC Experience,” hosted by the FDIC in April 1998, which featured discussions of the strategies used to liquidate the 1,617 banks and 1,295 thrifts that failed during the period. (©1999 EconLit)

Federal Deposit Insurance Corporation (FDIC). 1998c. *Resolutions Handbook: Methods for Resolving Troubled Financial Institutions in the United States*. FDIC.

This handbook details the processes available to the FDIC for resolving problem banks and savings institutions.

Garcia, Gillian. 1995. Implementing FDICIA’s Mandatory Closure Rule. *Journal of Banking and Finance* 19, no. 3–4:723–25.

Under the prompt corrective action (PCA) provisions of the FDIC Improvement Act (FDICIA), closure is mandatory when an institution’s tangible equity capital falls below 2 percent of its total assets. By the time the act was passed in December 1991, the number of critically undercapitalized banks and thrifts had fallen by 59 percent and 77 percent, respectively. By the time the act was implemented one year later, the percentages were even greater. Consequently, the expected deluge of closures did not occur. This article mentions five possible reasons for the decrease in the number of undercapitalized banks: (1) the improved economy; (2) the threat of mandatory closing; (3) the actual closing of failing banks by regulators; (4) the changed message on forbearance by Congress

and the administration; and (5) the improved ability to monitor a bank's compliance with the law.

Genin, Veronique Annie. 1994. Market-Based, Bank-Specific Closure Rules for Depository Institutions. Ph.D. diss., Florida State University.

This dissertation investigates the early-closure reform proposal by deriving bank-specific, market-based closure parameters. The study covers 32 quarters from the years 1984–91. The first essay analyzes the relationship among early closure, the flat-rate deposit insurance premium, and FDIC direct assistance. In the second essay, the author derives bank-specific closure-condition parameters, which represent the value of the opportunity to become solvent and to preserve the franchise value. The third essay explores the relationship between business cycles and the bank-specific, closure-condition parameters determined in the second essay. The results indicate that banks' conditions are rarely influenced by national business cycles but are influenced by regional economic activity.

Giliberto, S. Michael, and Nikhil P. Varaiya. 1989. The Winner's Curse and Bidder Competition in Acquisitions: Evidence from Failed Bank Auctions. *Journal of Finance* 44, no. 1:59–75.

This study examines the effect of bidder competition in acquisitions. The authors use predictions from auction theory to test whether acquirers of failed banks overpaid (the "winner's curse") when bidding in FDIC sealed-bid purchase-and-assumption (P&A) transactions (auctions). The empirical results indicate that winning bids tend to become larger as the number of competitors increases, as predicted by theory. The authors also find that bid levels of *all* bidders rose as competition increased, a finding consistent with the failure of bidders to adjust for the winner's curse in a common-value auction setting. However, additional tests using winning bids are consistent with both a common-value and a private-values model, so this result should be interpreted with caution.

Gonzales-Hermosillo, Brenda. 1999. Determinants of Ex Ante Banking System Distress: A Macro-Micro Empirical Exploration of Some Recent Episodes. Working Paper WP/99/33. International Monetary Fund.

This paper empirically analyzes the contribution of microeconomic and macroeconomic factors in recent episodes of banking-system problems in the U.S. Southwest, Northeast, and California; in Mexico; and in Colombia. The paper finds that, at the bank level, low equity capital and low reserve coverage for problem loans are leading indicators of bank distress, signaling a high likelihood of near-term failure. Distress is also shown to be a function of the same fundamental macro-micro sources of risk that determine bank failures. The author suggests that a focus on distress can help identify industrywide fragility before a crisis actually occurs.

Goodhart, Charles A. E. 1993. Bank Insolvency and Deposit Insurance: A Proposal. In *Money and Banking: Issues for the Twenty-first Century*, edited by Philip Arestis, 75–94. St. Martin's Press. Also 1993. Bank Insolvency and Deposit Insurance: A Proposal. In

*Central Bank and the Financial System*, edited by C. A. E. Goodhart, 414–29. MIT Press.

The experience of bank failures in several major countries has pointed up a number of intractable problems facing central banks and bank regulatory authorities. The debate continues over whether such insurance should be provided by the private or the public sector and whether it should cover all deposits or only deposits providing transactions services. The author argues that such insurance needs to be provided by the public sector and cover all deposits.

Gregorian, Vartan. 1991. *Carved in Sand: A Report on the Collapse of the Rhode Island Share and Deposit Indemnity Corporation*. 2 vols. State of Rhode Island.

This report elaborates on the following reasons for the failure of the Rhode Island Share and Deposit Indemnity Corporation (RISDIC): (1) many RISDIC members strayed from the original credit union concept; (2) some of RISDIC's members did not have adequate sources of liquidity; (3) RISDIC was not prepared to function as an insurer; (4) RISDIC had no recourse to "deep pockets" outside of its own membership; (5) RISDIC's board of directors did not adequately oversee RISDIC's operations; (6) RISDIC did not have an adequate monitoring and examination system; (7) RISDIC adopted an indulgent approach toward members; (8) the state's Department of Business Regulation did not have the resources or the continuity of leadership to exercise its legislated responsibilities adequately; (9) the state legislature indulged RISDIC's and its members' desire for "flexibility"; and (10) the executive branch did not take adequate precautions to mitigate the effect of a possible financial crisis.

Guo, Lynn. 1997. *When and Why Did FSLIC Resolve Insolvent Thrifts?* Ph.D. diss., Boston College.

This dissertation investigates the reasons regulators granted capital forbearance during the thrift crisis of the 1980s: Was it to reduce the cost to federal insurance funds or was it because of the statutory constraints faced by the regulatory agencies? For the period 1985–89, the results suggest that regulators seldom conformed to the benchmark strategy that an "unconflicted" agent would follow in timing insolvency resolutions. Results are inconsistent with the hypothesis that regulators simply seek to minimize the loss exposure to the insurance fund. The dissertation also develops evidence about the character of forbearance policies. First, it shows that authorities did not first resolve institutions with lower capital ratios and greater franchise values. Second, regulators gave more forbearance to larger thrifts and District 7 and 9 thrifts. Third, thrifts that were market-value insolvent but RAP-solvent were given more time to recover, *ceteris paribus*.

Gupta, Atul, and Lalatendu Misra. 1999. Failure and Failure Resolution in the U.S. Thrift and Banking Industries. *Financial Management* 28, no. 4:87–105.

The failure of large numbers of thrifts and commercial banking firms during the 1980s and early 1990s severely tested the existing deposit insurance and failure-resolution systems in the United States. This article surveys recent academic and

regulatory studies on the causes of the crisis, the costs of different regulatory strategies used to combat the crisis, and the changes resulting from the passage of FIRREA in 1989 and of FDICIA in 1991. The information gathered from the review is used to identify critical elements of a regulatory strategy that is capable of both early detection of potential problems and minimization of resolution costs in the event of such failures.

Holland, David S. 1993. The Bank and Thrift Crises—A Retrospective. *FDIC Banking Review* 6, no. 1:16–25.

The decade of the 1980s was a tumultuous period for the U.S. banking and thrift industries and their regulators. This article provides a retrospective analysis of the crises. The author first provides a brief review of pre-1980 developments in the thrift and banking industries. Next, the thrift industry's expansion and contraction are described. Then, the banking industry's difficulties are examined. Finally, the author gives his thoughts on the prospects of the banking and thrift industries.

Holland, David S. 1998. *When Regulation Was Too Successful—The Sixth Decade of Deposit Insurance: A History of the Troubles of the U.S. Banking Industry in the 1980s and Early 1990s*. Praeger.

This book examines the banking industry's troubles of the 1980s and early 1990s, troubles that at times approached crisis proportions. Unlike the infamous savings and loan crisis, however, the banking troubles did not end up decimating an industry or requiring a massive taxpayer bailout. The banking industry survived and, indeed, seems healthy and very much a central, fundamental component of the U.S. financial system. Nevertheless, the author expresses concern that some of the lessons that should have been learned from these episodes have not been fully accepted.

Jaffee, Dwight M. 1989. Symposium on Federal Deposit Insurance for S&L Institutions. *Journal of Economic Perspectives* 3, no. 4:3–9.

In this paper introducing the symposium, the author examines the problems that led to the insolvency of the Federal Savings and Loan Insurance Corporation (FSLIC). In examining the sources and solutions of the FSLIC crisis, he raises and discusses four questions: How did S&L losses expand so rapidly and unexpectedly? How should the FSLIC be redesigned to avoid a recurrence? Who is going to pay for the existing FSLIC losses? What are the prospects for the S&L industry?

James, Christopher. 1991. The Losses Realized in Bank Failures. *Journal of Finance* 46, no. 4:1223–42.

This article examines the losses realized in bank failures during the period 1985 through mid-year 1988. Losses are measured as the difference between the book value of assets and the recovery value net of the direct expenses associated with the failure. Results indicate that the loss on assets is substantial, averaging 30

percent of the failed bank's assets. An analysis of the determinants of these losses reveals a significant difference between the value of assets retained by the FDIC and the value of similar assets assumed by acquiring banks. Direct expenses associated with bank closures average 10 percent of assets. There are, however, significant economies of scale with respect to direct costs of liquidation.

Kane, Edward J. 1989. *The S&L Insurance Mess: How Did It Happen?* Urban Institute Press.

Contends that congressional procedures for budgeting and overseeing the operations of the savings and loan deposit insurance bureaucracy made the regulatory strategy of cover-up and deferral practically irresistible. Notes that the S & Ls have been "in the red" for over twenty-five years, spreading to the Federal Savings and Loan Insurance Corporation (FSLIC) and that federal regulators and politicians allowed accounting gimmicks to hide the impending damage from the public. Reviews FSLIC regulation and the handling of risk and S&L capital. Identifies critical mistakes of the FSLIC and analyzes socially perverse incentives confronting thrift regulators. Presents two case studies of the meltdown of deposit insurance funds as evidence of regulatory gambling. Recommends guidelines for significant reform in both the short run and long run, including improving incentives, emphasizing market discipline, and stressing regulatory procedures especially dealing with adequacy of capital requirements. (©1999 EconLit)

Kane, Edward J., and Min Teh Yu. 1994. How Much Did Capital Forbearance Add to the Tab for the FSLIC Mess? Working Paper 4701. National Bureau of Economic Research.

Federal regulators characterize capital forbearance as an efficient way of nursing weak banks and thrifts back to health. An alternative hypothesis is that forbearance reflects inefficient costs of agency that fall on federal deposit-insurance funds. Divergences between regulatory measures of a troubled institution's net worth and GAAP and market-value measures relieved FSLIC from having to book de facto encumbrances that industry losses were imposing on the FSLIC fund. This omission protected the reputations and careers of top officials. Delays in insolvency resolution intensified FSLIC exposure to future losses by distorting management and risk-taking incentives and squeezing profit margins for surviving thrifts. Besides accumulating projects with negative net present value, delay hurt FSLIC indirectly by undermining the average profitability of the industry it insured. This paper seeks to measure the opportunity cost of FSLIC forbearance during 1985-1989. Although the opportunity cost of delay did not increase every year, it did increase on average. Had opportunity-cost standards of capital adequacy been routinely enforced, FSLIC guarantees would not have displaced private capital on a mammoth scale, surviving members of the industry would have proven more profitable, and investments in commercial real estate would have been reinstated. (©1999 EconLit)

Kane, Edward J., and Min Teh Yu. 1995. Measuring the True Profile of Taxpayer Losses in the S&L Insurance Mess. *Journal of Banking and Finance* 19, no. 8:1459–77.

This research shows that conservative methods of projecting and discounting cash flows, if applied to information “already” collected in the FHLBB’s reporting system, would have reflected the size of the S&L deposit-insurance losses long before taxpayers were aware of the extent of the mess. Official data show FSLIC reserves of \$4.6 billion in 1986. In sharp contrast, our conservative estimate puts imbedded losses for that year at \$45.3 billion. These methods prove insensitive to arbitrariness in the assumptions needed to operationalize the discounting process and measure the extent of “guilty knowledge” it is fair to presume officials possessed—supporting an incentive-breakdown theory of the problem over presumptions of innocent ignorance. The policy implication is that taxpayers need to impose on government regulatory agents a better information system and better enforcement of those agents’ obligations to the public. (©1999 EconLit)

Kaufman, George G. 1996. Bank Failures, Systemic Risk, and Bank Regulation. *Cato Journal* 16, no. 1:17–45.

The author maintains that regulations imposed to prevent or mitigate the effect of bank failures are frequently inefficient and counterproductive and that banking regulators often increase both the probability of bank failures and the costs of such failures—ultimately shifting the costs of failures from private depositors of the failed banks to general taxpayers. He argues that an effective system of structured early intervention and resolution would reduce the number of bank failures while still allowing inefficient institutions to fail.

Levonian, Mark E. 1992. A Note of Caution on Early Bank Closure. Federal Reserve Bank of San Francisco *Weekly Letter*, no. 92-41 (November 20).

Penalties do not always have their intended effects. Prohibition may or may not reduce problems related to alcohol. The relationship between the death penalty and murder rates is passionately debated. Similar considerations arise in bank regulation, where penalties designed to deter banks from taking risks just might have the opposite effect. Specifically, a policy of closing troubled banks earlier aims to prevent unsound banks from taking big risks at the expense of the deposit insurance fund; the catch is that recent banking research indicates some banks may respond to earlier closure by taking on *more* risk. This *Letter* describes this new research and argues that the effect it points to can be mitigated if a larger number of smaller penalties are imposed in a policy of graduated intervention, as under the federal bank regulatory policy of “prompt corrective action.”

Lowy, Martin. 1991. *High Rollers: Inside the Savings and Loan Debacle*. Greenwood.

Provides an inside look at the savings and loan crisis. Explains how the S&L business and its regulatory system were set up; how the accounting rules gave a false picture of financial health; how the economics of the S&L business changed; how real estate markets work; how the regulators and accountants could not keep up with the changes; how greed and fraud were permitted to take over; how the

time value of money made delay costly; how the political process made matters worse; and what factors caused parts of the S&L losses. Discusses the impact of deregulation; the role of numbers in formulating policy; how complexity can prevent effective regulation; why fraud always threatens banks and what can be done about it; what regulation can and cannot accomplish; how regulation is unable to tame technology or market forces; deposit insurance reform; and some implications of the FSLIC bailout for the future of thrift institutions. (©1999 EconLit)

Mailath, George J., and Loretta J. Mester. 1994. A Positive Analysis of Bank Closure. *Journal of Financial Intermediation* 3, no. 3:272-99.

This article investigates the incentives of a regulator to close depository institutions, recognizing that an institution's risk-taking will be influenced by the regulator's policy regarding bank closure and that there are opportunity costs in closing banks arising from their intermediation function. The authors conclude that regulators focus not on the current portfolio of the bank but on its future portfolio.

Moreland-Gunn, Penelope, Peter J. Elmer, and Timothy J. Curry. 1995. Reps and Warranties. *FDIC Banking Review* 8, no. 3:1-9.

Representations and warranties (R&Ws) are legally binding statements primarily made by sellers assuring buyers that certain minimum asset-quality requirements are met. R&W risk can be significant for institutions that actively purchase and sell loans because each time a purchase or sale is made, R&W risk exposure increases. The authors discuss the early difficulties of the Resolution Trust Corporation (RTC) in trying to sell assets without R&Ws. They also analyze the RTC's claims experience with R&Ws, and compare the estimated costs and benefits of granting R&Ws.

Murphy, Neil B. 1992. Acquisitions of Failed-Bank Deposits: In-Market vs. Out-of-Market Cost Effects. *FDIC Banking Review* 5, no. 2:24-33.

Banks seeking to acquire an insured-deposit franchise from the FDIC establish their bids on the basis of expected net future earnings from the acquisition. Does a high bid from an in-market bank reflect cost efficiencies, or does it reflect gains from reducing the number of competitors in the market area? This article seeks to answer that question. Using standard econometric techniques and simulations of specific transactions, the author finds that in-market bidders who close redundant branches can achieve substantial cost efficiencies. Although there may not be economies of scale as a bank expands, there appear to be economies of scale as the typical branch expands.

Neuberger, Jonathan A. 1990. How to Close Troubled Banks. Federal Reserve Bank of San Francisco *Weekly Letter* (December 7).

In this *Letter*, the author describes current procedures for resolving problems at troubled banks and suggests that tighter procedures can go a long way toward closing insolvent banks promptly.

O'Keefe, John. 1990. The Texas Banking Crisis: Causes and Consequences 1980–1989. *FDIC Banking Review* 3, no. 2:1–34.

This analysis seeks to explain the high failure rates among Texas commercial banks in the 1980s. Specifically, the author examines financial and nonfinancial market data as well as information on regulatory activity in Texas during the period in question to determine which factors contributed to the problems of the state's commercial banks.

O'Keefe, John. 1992. Bank Failure Resolutions: Implications for Banking Industry Structure, Conduct, and Performance. *FDIC Banking Review* 5, no. 1:17–35.

This study examines the effect of failed-bank acquisitions on acquirers' performance and investigates the determinants of post-acquisition performance. Using a sample of recent failed-bank acquisitions, the author finds that the post-acquisition performance of the failed-bank acquirers was very similar to that of acquirers of nonfailed banks. Both groups of acquirers were able to improve asset quality and maintain profitability, on average, in the post-acquisition period. Neither group of acquirers, however, appeared to realize economies of scale or scope. Finally, although the FDIC often granted assurances to failed-bank acquirers, these assurances did not appear to result in a significant subsidy to failed-bank acquirers.

Okina, Yuri. 1995. Coping with the Failure of Financial Institutions through Reform of the Deposit Insurance System. *Japan Research Quarterly* 4, no. 3:73–76.

There has been much discussion of rights and wrongs in the handling of the failure of two Tokyo-based credit associations. The author examines what approach Japanese authorities should take in dealing with failed financial institutions and whether the Japanese deposit insurance system should be reformed. The author suggests working to increase the transparency with which failures are handled, having available a diversity of resolution methods, and reforming the deposit insurance system.

Osterberg, William P., and James B. Thomson. 1994. Underlying Determinants of Closed-Bank Resolution Costs. Working Paper no. 9403. Federal Reserve Bank of Cleveland.

This paper looks at the underlying determinants of bank resolution costs. In the spirit of James (1991), the authors model resolution costs as functions of problem assets. However, they extend previous work by looking at failures from a more recent period (from 1986 to 1992) and by broadening their specification to include proxies for fraud, off-balance-sheet risk, brokered deposits, and both regional and

size effects. Unlike James, they find no evidence that capital reflects net unbooked losses, but they do find roles for fraud, off-balance-sheet items, and both regional and size dummies.

Reichert, Usha Nair. 1997. A Brief Note Examining the Impact of Federal Deposit Insurance on Savings and Loan Failures Using Granger Causality Tests. *Journal of Economics and Finance* 21, no. 3:61–64.

This brief note applies Granger causality testing to the issue of whether federal deposit insurance has caused S&L failures. The findings strongly indicate that federal deposit insurance has Granger-caused S&L failures over the 1934–91 period. (©1999 EconLit)

Resolution Trust Corporation (RTC). 1990. Open Bank Assistance: A Study of Government Assistance to Troubled Banks from the RFC to the Present. RTC.

This RTC research study describes four major types of open-bank assistance: the loan and investment program of the Reconstruction Finance Corporation; the FDIC's net worth certificate program; the FDIC's capital forbearance program; and direct open-bank assistance transactions.

Saltz, Ira S. 1995. The Impact of Federal Deposit Insurance on Savings and Loan Failures: Comment [on Cebula article in vol. 59, no. 4]. *Southern Economic Journal* 62, no 1:253–55.

Saltz maintains that although the Cebula article is a useful scholarly investigation of the causes of the S&L crisis, it contains an econometric flaw that casts doubt on one of his conclusions—the conclusion that the failure rate of S&Ls is a positive function of the real federal deposit insurance ceiling. In addition to discussing this econometric flaw, Saltz presents some new estimates of the basic model in Cebula to show that the ceiling on federal deposit insurance does not significantly affect the failure rate of S&Ls.

Saltz, Ira S. 1997a. FDIC Coverage on Bank Failures: Cointegration Analysis Using Annual Data, 1942–91. *International Advances in Economic Research* 3, no. 1:71–80.

The present study empirically investigates whether in the U.S. federal government-provided deposit insurance, which was intended to prevent runs on banks and to protect depositors of modest means, has acted to induce increased bank failures. This issue has been investigated earlier, but only with regression analysis, and it remains unresolved since results vary sharply from one study to the next. By contrast, the present study uses cointegration techniques to investigate this problem. The cointegration analysis finds strong evidence of a cointegrating relationship between the bank failure rate and the extent of central government-provided deposit insurance as well as other variables. Maximum eigenvalue and trace test results, along with normalized cointegrating vectors and likelihood ratio test results, are provided examination. (©1999 EconLit)

Saltz, Ira. 1997b. Federal Deposit Insurance Coverage and Bank Failures: A Cointegration Analysis with Semi-annual Data, 1965–91. *Journal of Economics and Finance* 21, no. 3:3–9.

This study examines empirically the link between bank failures and statutorily created increases in the extent of federal deposit insurance coverage. The model includes such factors as the percentage of deposits at federally insured banks that was covered by federal deposit insurance (FDICOV), the tangible capital/asset ratio, the commercial bank cost of funds, and the prime rate of interest. Using cointegration techniques involving maximum eigenvalue, trace, and likelihood ratio tests, together with semi-annual data for 1965–91, the study reveals that the bank failure rate is cointegrated with FDICOV, the capital/asset ratio, and the commercial bank cost of funds. Accordingly, it is inferred that--consistent with previous studies--the system of federal deposit insurance very likely induced bank failures during the study period. (©1999 EconLit)

Seballos, Lynn D., and James B. Thomson. 1990. Underlying Causes of Commercial Bank Failures in the 1980s. Federal Reserve Bank of Cleveland *Economic Commentary* (September 1): 1–4.

This article asks why bank failures hit record rates during good economic times and says there were probably two reasons. First, the U.S. banking system is a regional system. Therefore, economic slumps in specific areas of the country, which do not necessarily coincide with national downturns, may be partly responsible for the increased rate of failures. Second, the rise in the failure rate may be traced to the behavior of bank management in increasingly deregulated and competitive financial markets. The authors investigate the role these factors may have played in the failures of banks between 1982 and 1989. They conclude that although regional economic problems contributed to the demise of many of the banks during this period, a bank's ability to survive was ultimately determined by managerial factors.

Selgin, George. 1994. Are Banking Crises Free-Market Phenomena? *Critical Review* 8, no. 4:591–608.

The conventional view of banking crises sees them as an inherent problem of fractional-reserve banking systems. According to this view, government regulation in the form of an alert central bank (acting as a “lender of last resort”), or deposit insurance, or both is needed to keep isolated bank failures from generating system wide panic. But this view does not mesh with historical experience, which points to government regulation itself as the most likely cause of banking crises. (©1999 EconLit)

Silverberg, Stanley. 1989. M Corp and the Handling of Large Bank Failures. *The Golembe Reports* 1989-3.

During the last week in March 1989, 20 banks that had been subsidiaries of M Corp were closed by the Comptroller of the Currency, placed into a bridge bank by the FDIC, and eventually sold to another bank. The FDIC's handling of M

Corp and the events leading up to the March closing are likely to have a significant effect on how future failures are managed. In fact, these events illustrate issues and conflicts that have already arisen in connection with the handling of other large-bank failures during the late 1980s. The author discusses some of these events and assesses the appropriateness of what was done by and to M Corp.

Silverberg, Stanley. 1992. The High Cost of Bank Failures. *The Golembe Reports* 1992-3.

The author observes that bank failures have become very important and expensive to surviving banks—even very healthy ones—as additional regulatory costs have been imposed in reaction (or overreaction) to failures. In other words, surviving banks will have to shoulder the costs of both past and future failures. This report examines these latter costs. It also looks at the way bank failures are being handled and the effect on costs and other aspects of the banking environment.

Strahan, Philip E. 1995. Asset Returns and Economic Disasters: Evidence from the S&L Crisis. *Journal of Monetary Economics* 36, no. 1:189–217.

This paper shows that depositors lost confidence in FSLIC during the two years prior to passage of FIRREA, legislation which recapitalized the deposit insurance fund in 1989. During this period, promised returns on retail CDs reflected the expected loss and return standard deviation on these securities in the absence of government insurance. Cross-sectional analysis is used to estimate both the probability and the conditional price of risk associated with FSLIC default. The results suggest that increased uncertainty about both output and inflation in this disaster scenario drove the price of FSLIC default risk to extremely high levels. The results also indicate that the market for retail deposits is characterized by less than perfect arbitrage across geographical regions. (©1999 EconLit)

Talley, Pat L. 1993. *The Savings and Loan Crisis: An Annotated Bibliography*. Greenwood.

An annotated bibliography of books and research papers that address specific aspects of the U.S. savings and loan crisis. Includes both scholarly and popular titles of books and research papers published between 1980 and 1992. Arranged alphabetically by author under the following subject areas: the Depository Institutions Deregulation and Monetary Control Act of 1980; the Garn-St. Germain Depository Institutions Act of 1982; deposit rate ceilings; mortgage lending; accounting and tax issues; deposit insurance; regulatory oversight; the thrift industry (in different periods); the Competitive Equality Banking Act of 1987; resolution cost; mergers, acquisitions, and conversions; failed thrifts; 1988 resolutions; failure analysis and prediction; Texas thrifts; the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA); and post-FIRREA. (©1999 EconLit)

U.S. Congressional Budget Office (CBO). 1994. *The Changing Business of Banking: A Study of Failed Banks from 1987 to 1992*. Report. CBO.

Prepared at the request of the Senate Banking Committee, this study examines the major factors contributing to bank failures from 1987 to 1992 and discusses the extraordinary resolution costs that resulted from the failures.

U.S. General Accounting Office (GAO). 1993. *Bank Insurance Fund: Review of Loss Estimation Methodologies*. GAO/AIMD-94-48.

This report compares the various approaches forecasters used in estimating bank failures and losses, the key assumptions of each approach, and the timing and frequency with which the estimates were prepared.

U.S. General Accounting Office (GAO). 1994. *1992 Bank Resolutions: FDIC Chose Methods Determined Least Costly, But Needs to Improve Process*. GAO/GGD-94-107.

This report presents the results of the GAO's review of the FDIC's compliance with Section 13(c)(4) of FDICIA. Section 13(c)(4) requires the FDIC to calculate and document its evaluation of the costs of all possible methods for resolving a troubled depository institution and to choose the resolution method that entails the least possible cost to the deposit insurance fund. These statutory provisions establish the basic requirements the FDIC must meet in making its least-cost determination. This report assesses the FDIC's adherence to the least-cost requirements and includes recommendations for improving the resolution process.

U.S. House. 1991a. Committee on Banking, Finance and Urban Affairs. *Closure of 45 Privately Insured Financial Institutions in Rhode Island: Hearing*. 102d Cong., 1st sess., April 17.

Witnesses include Layne Bumgardner, Antoinette DeMaio, John Downey, Joe Dube, Paul Fritts, Flora Fusaro, Carlotta LaBella, Mark Neckes, Bruce Sundlun, and Richard Syron.

U.S. House. 1991b. Committee on Banking, Finance and Urban Affairs. *The Bank of New England Failure and Resolution: Hearing*. 102d Cong., 1st sess., May 24 and 25.

This study of the failure of the Bank of New England in January 1991 indicates that bank management undertook a high-risk gamble on commercial real estate without proper internal controls. In its conclusion, the study suggests that the newly enacted FDICIA will help control future failures of this type, since the act gives regulators more supervisory power and the authority to intervene before a bank becomes insolvent. Witnesses include Marilyn Cimini, John F. Downey, Flora R. Fusaro, Terrance McKenna, Anthony J. Solomon, John Stone, Bruce G. Sundlun, John F. Kerry, John Joseph Moakley, Bruce Bolling, Raymond Flynn, Oscar Dotson, Thomas Middleton, James P. Murphy, Charles O'Connell, Bert Otto, William E. Robinson, Theodore M. Shediak, William Spring, John R. Strickland, Paul H. Wiechman, Dianne Wilkerson, and Charles C. Yancey.

U.S. House. 1991c. Committee on Banking, Finance and Urban Affairs. *Rhode Island Banking Crisis: Hearing*. 102d Cong., 1st sess, May 24 and 25.

Witnesses include Marilyn Cimini, John Downey, Flora Fusaro, Terrance McKenna, Anthony Solomon, John Stone, Bruce G. Sundlun, John Kerry, John Moakley, Bruce Bolling, Raymond Flynn, Oscar Dotson, Thomas Middleton, James Murphy, Charles O'Connell, Bert Otto, William Robinson, Theodore Shediak, William Spring, John Strickland, Paul Wiechman, Dianne Wilkerson, and Charles Yancey.

U.S. Senate. 1990. Committee on Banking, Housing and Urban Affairs. *Fraud in America's Insured Depository Institutions: Hearing*. 101st Cong., 2d sess., August 1 and 2.

The subjects discussed are the nature and extent of the problem of fraud in depository institutions, why it seems to be as pervasive as it is, how the federal government is responding to it, and what further steps need to be taken in addition to the reform legislation already enacted. Witnesses include Richard Fogel, William Seidman, and Richard Thornburgh.

Wheelock, David C. 1992a. Deposit Insurance and Bank Failures: New Evidence from the 1920s. *Economic Inquiry* 30, no. 3:530-43.

This paper examines the contributions of deposit insurance to bank failures during the 1920s. Using individual bank data from Kansas, where membership in the state insurance system was voluntary, the author finds that the balance sheets of insured banks reflected greater risk-taking and probit model estimates indicate that insured banks were more likely to fail than noninsured banks. Insurance had an especially strong impact the closer a bank was to failure. Because regulation was comparatively strict in Kansas, the findings suggest that deposit insurance had an even greater impact in other states and in the recent U.S. experience. (©1999 EconLit)

Wheelock, David C. 1992b. Regulation and Bank Failures: New Evidence from the Agricultural Collapse of the 1920s. *Journal of Economic History* 52, no. 4:806-25.

This article examines the contribution of government policies to the high number of bank failures in the United States during the 1920s. In the state of Kansas, which had a system of voluntary deposit insurance and where branch banking was strictly prohibited, bank failure rates were highest in counties suffering the greatest agricultural distress and where deposit insurance system membering was highest. The evidence for Kansas illustrates how prohibitions on branch banking caused unit banks to be especially vulnerable to local economic shocks and suggests that deposit insurance caused more bank failures than would have occurred otherwise. (©1999 EconLit)

Wheelock, David C., and Subal C. Kumbhakar. 1994. The Slack Banker Dances: Deposit Insurance and Risk-Taking in the Banking Collapse of the 1920s. *Explorations in Economic History* 31, no. 3:357–75.

This article examines the effects of deposit insurance on bank behavior in Kansas during the 1920s. Kansas banks were severely stressed by a collapse of commodity prices in 1920 and the resulting increase in loan defaults. The authors find that banks belonging to the state deposit insurance system maintained lower capital/asset ratios, which may explain their comparatively high failure rate. Despite delays and eventual suspension of insurance payments, they find no evidence of a decline in the credibility of insurance and, hence, in the ability of insured banks to take excessive risks before the system's collapse in 1926. (©1999 EconLit)

Wheelock, David C., and Paul W. Wilson. 1994. Can Deposit Insurance Increase the Risk of Bank Failure? *Federal Reserve Bank of St. Louis Review* 76, no. 3:57–71.

The authors examine the effect of deposit insurance by drawing on historical evidence from a voluntary insurance system that operated in Kansas between 1909 and 1929. They found that insured banks held less capital and reserves than uninsured banks and that banks with low capital and reserves, or a heavy reliance on borrowed funds, were more likely to fail. In short, risky banks were more likely to fail, and members of the state deposit insurance system tended to be riskier than nonmembers.

Wheelock, David C., and Paul W. Wilson. 1995. Explaining Bank Failures: Deposit Insurance, Regulation, and Efficiency. *Review of Economics and Statistics* 77, no. 4:689–700.

This paper uses micro-level historical data to examine the causes of bank failure. For state-chartered Kansas banks during 1910–28, time-to-failure is explicitly modeled using a proportional hazards framework. In addition to standard financial ratios, this study includes membership in the voluntary state deposit insurance system and a measure of technical efficiency to explain bank failure. The results indicate that deposit insurance system membership increased the probability of failure and technically inefficient banks were more likely to fail than technically efficient banks. (©1999 EconLit)

White, Lawrence J. 1991. *The S&L Debacle: Public Policy Lessons for Bank and Thrift Regulation*. Oxford University Press.

Provides an analysis of the savings and loan debacle, focusing on what happened, how and why it happened, and what reforms are necessary so that the experience will not recur. Describes the current status of the thrift industry and examines recent trends. Discusses the deposit insurance and the regulatory structure applicable to thrifts and banks. Recounts the financial and political history of the thrifts through the late 1970s. Discusses the interest rate squeeze of the late 1970s and early 1980s, and explores the subsequent behavior. Reviews the efforts of the Federal Home Loan Bank Board to contain the damage and analyzes the activities

of the Board in disposing of insolvent thrifts, especially in 1988. Discusses the cleanup legislation of 1989, and examines some fundamental questions concerning deposit insurance and the bank and thrift regulation that accompanies it. Addresses the fundamental reforms that are needed for regulation and deposit insurance and explores two themes that are relevant to the reforms--the changing and improving technologies that undergird banks and thrifts, which will lead to increased competition within and among them, and the future role of thrifts in the financial services markets. (©1999 EconLit)

Zhang, Hao. 1997. Repeated Acquirers in FDIC Assisted Acquisitions. *Journal of Banking and Finance* 21, no. 10:1419-30.

The authors studied repeated acquirers in Federal Deposit Insurance Corporation (FDIC) assisted acquisitions. Using a sample of 128 FDIC assisted acquisitions and 387 non-assisted acquisitions, we found that FDIC assisted acquirers, on average, produced positive abnormal returns. This result was driven by repeated acquirers. First-time acquirers did not profit in these assisted acquisitions. In a logit analysis, they found that the FDIC repeated acquirer improved its profiting chances by reducing the winning bid and the number of bids. This evidence is consistent with the suggested experience/information effect based on theory and FDIC practices. (©1999 EconLit)