

Financial Crises

Understanding the Postwar U.S.
Experience

Second Edition

M.H. Wolfson



FINANCIAL CRISES

A stylized line graph is integrated into the text. The word 'FINANCIAL' is positioned above 'CRISES'. The line starts below the 'F', rises to a peak above the 'I', falls to a trough below the 'C', rises to a second peak above the 'S', and then falls to a final trough below the 'S'. The lines are thick and black.



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U.S. Experience**

Second Edition

Martin H. Wolfson

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*To my parents
Eli and Emma Wolfson*



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Preface to the Second Edition

The period since 1986, when the first edition of this book was published, has been a turbulent time for the financial system. Stock markets crashed around the world; the junk-bond and commercial real estate markets collapsed; large commercial banks failed in record numbers; savings and loan associations were rescued in a massive government bailout; foreign-exchange speculation severely disrupted plans for a single European currency. So with this revised edition, I welcome the opportunity to bring the story of financial crises in the United States up to date.

A new chapter (chapter 10) has been written that recounts in detail the recent crises. The figures and tables from the first edition have been completely revised and updated through the third quarter of 1993, and more than a dozen new ones have been added to this new edition. The chapter on evaluating the business-cycle model (chapter 12) has been thoroughly revised to take account of the new data.

However, it is not sufficient to simply recount the events since 1986. The objective of the book always has been to put economic events into a framework of understanding, to provide a theoretical overview for seemingly disparate phenomena. The framework for the first edition was the business cycle: the theory attempted to demonstrate why developments over the course of the business-cycle expansion made financial crises likely at the cycle's peak. This framework, I would contend, is still useful and important; but the events since 1986 have clearly pointed to the need for an explanation for financial crises that do not occur at the business-cycle peak. Accordingly, two new chapters (chapters 13 and 14) explore noncyclical theories of financial crises and develop significantly the analysis of institutional change only hinted at in the first edition.

The first edition closed with the suggestion that perhaps 1982 was a transition point between two different financial structures. The current edition attempts to give some substance to that suggestion by tracing the changes in the financial structure since the 1930s, in particular those affecting commercial banks and thrift institutions. Hopefully the result is greater clarity on why the financial landscape since 1986 has been so especially turbulent.

In preparing the revised edition I have had the help of a number of people. For help in the formulation of my ideas, I would like to thank Ray Boddy, Jim Campen, John Caskey, Jim Crotty, Jane D'Arista, Gary Dymski, Steve Fazzari, Don Goldstein, Teresa Ghilarducci, David Gordon, Dorene Isenberg, Marc Jarsulic, David Kotz, Arthur MacEwan, Michele Naples, Bob Pollin, Tom Schlesinger, Howard Sherman, Tom Weisskopf, and Chuck Wilber. (Of course, none of these people are responsible for any errors.) A special word of thanks goes to Doug Carpenter for his help in updating the data. The excellent research assistance of Bill Barnes, Jose Cordero, Heather Grob, Jeff Henke, Muhammad Iqbal, Reynold Nesiba, Shankar Raman, and Brad Smith is much appreciated.

I would also like to thank my colleagues at the Federal Reserve Board and the University of Notre Dame (both faculty and students), from whom I have learned much about the financial system and about economics. My editor at M.E. Sharpe, Dick Bartel, first proposed the idea of a second edition, and has consistently supported my efforts. Finally, I would like to thank my wife, Linda, whose shared commitment to a better world has continually encouraged and informed my efforts to understand (so as to change for the better) the financial system; and my children, Sara and David. It is they, and the children of their generation, who hopefully will inherit that better world.

FINANCIAL CRISES

A stylized line art graphic in black, consisting of several thick, solid lines. It starts with a line sloping upwards from the left, reaching a peak above the letter 'I' in 'FINANCIAL'. From this peak, a line slopes downwards, crossing the letter 'I' in 'CRISES'. It then continues to slope down to a sharp V-shaped dip below the letter 'S' in 'CRISES', before rising again to the right.



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Introduction

In the nineteenth and early twentieth centuries, financial crises occurred regularly in the United States, with particularly severe episodes in 1873 and 1893. Closer to the present time were the Panic of 1907 and the banking crises that took place during the Great Depression of the 1930s. In that latter case, faith in the banking system had fallen to such a low level that a national Banking Holiday that closed all banks was declared on March 6, 1933.

The severe financial and economic trauma of the Great Depression led to major reforms in the structure of the economy, including important institutional changes in banking and finance. The hope at the time was that these reforms would put an end to the dislocations resulting from financial crises.

For a while after the Great Depression and the Second World War, it appeared that these hopes might be realized. For twenty years after the end of World War II, although certain sectors of the economy suffered financial strains from time to time, events in the financial markets did not resemble those that took place during the financial crises of an earlier era.

During the period immediately following World War II, when financial crises seemed to have disappeared forever from the economic scene, mention of them also disappeared from the economics literature. Nearly an entire generation of economists was trained without ever studying the origins and causes of financial crises. If the prevailing wisdom were true, though, such neglect made sense: why study a phenomenon that no longer existed?

Thus the “credit crunch” of 1966 came as quite a shock. For a period of time during the summer of 1966, the market for municipal securities was “disorganized” by the liquidation of bonds from commercial bank portfolios, and thrift institutions came under strong financial pressure. Events seemed to be developing in the same way as they had during past financial crises.

As it turned out, the crisis was resolved before it caused significant damage to the economy. Though the 1966 crisis was much less intense than the Panic of 1907 or other similar crises, it was nonetheless a shock to observers who had thought financial crises were a thing of the past.

The credit crunch of 1966 was followed by another crisis in 1970. Then the surprise bankruptcy of the Penn Central company threatened the commercial paper market and led to a “flight to quality” (i.e., a preference for safe investments). Corporations that had relied upon commercial paper borrowing scrambled desperately for alternative sources of funds. As in 1966, prompt action by the Federal Reserve Board in its capacity as lender of last resort, and appropriate monetary and fiscal policies, prevented the crisis from developing into a full-scale panic. The downturn in economic activity was relatively mild, but of greater intensity than the growth recession of 1966.

In 1974 an even more serious financial crisis took place when the troubles of the Franklin National Bank, the twentieth-largest bank in the United States, were announced in May. This time the crisis had international implications. Franklin had borrowed heavily in the Eurodollar interbank market and had engaged in substantial foreign-exchange speculation. Both of these markets were threatened by Franklin’s difficulties. In addition, the market for bank certificates of deposit in the United States came under increased pressure.

Again, government action prevented the situation from escalating rapidly. At the time, however, it became quite clear that the economy of the United States was susceptible to financial crises.

Silver speculation by the billionaire Hunt brothers again threatened to set off a serious financial crisis in 1980. When the price of silver began to fall in January 1980, the Hunts borrowed on a massive scale—an incredible total of nearly \$1 billion—from commercial banks in order to cover their losses. Potential default on this mountain of debt put the banking system under considerable pressure.

A financial crisis occurred again in 1982. Because of the degree of interconnection among the nation’s banks, the failure of two relatively small financial institutions—Drysedale Government Securities, Incorporated, and Penn Square National Bank—affected other, bigger institutions and created a crisis of confidence in the banking system as a whole.

In addition, conditions in 1982 pushed two other problems towards crisis proportions: the financial troubles of savings and loan associations and the debt burden of less-developed countries. In September 1982, fear of Mexico’s default on its obligations to commercial banks aggravated the banks’ problems, set off a capital flight, and required lender-of-last-resort operations on an international scale to manage the crisis.

The problems of financial intermediaries continued past 1982. Weakened significantly by the legacy of bad loans they had purchased from Penn Square, both Continental Illinois and Seattle First National Banks were hit by a run on deposits by large investors. Only an unprecedented government bailout in the summer of 1984 prevented the difficulties at Continental from spreading throughout the banking and financial systems.

The thrift industry also continued to be under financial pressure. During the summer of 1984, a run developed on the deposits of the American Savings and

Loan Association, at the time the largest thrift in the United States. In March 1985, the failure of ESM Government Securities, Inc., a small securities dealer in Florida, resulted in the closing of Home State Bank in Ohio. Home State's deposits were insured by a state-backed fund, rather than the federal government. The demise of Home State threatened the solvency of the fund, led to a run on the deposits of all seventy-one state-insured thrifts in Ohio, and eventually led to their closing by the governor of Ohio. A similar crisis developed among state-insured thrifts in Maryland. The image of depositors waiting in long lines to withdraw their money was one that had not been seen in the United States since the Depression.

Since 1985, financial crises and disturbances to the financial system have continued apace. Problems in the commercial banking sector continued. Banks in Texas succumbed to a deterioration in the quality of energy and real estate loans, and several major bailouts were undertaken. By the end of the 1980s, none of the large Texas banks that existed in 1986 had survived as an independent entity. Commercial bank profitability declined sharply in 1987 after major multinational banks, for the first time, set aside provisions for losses on loans to less-developed countries. Citicorp initiated the process with a \$3 billion charge to earnings.

The stock market crashed on October 19, 1987; the Dow-Jones Industrial Average lost 508 points. In a demonstration of the increasing interconnection among the world's financial markets, the crash spread worldwide. The market for high-yield securities, or "junk bonds," did not crash quite so dramatically, but had suffered a significant collapse by the end of the decade. Some firms that had issued junk bonds to finance corporate takeovers, such as the Campeau Corporation, filed for bankruptcy; financial institutions that had overwhelmed their portfolios with junk bonds, such as Columbia Savings and Loan and First Executive Insurance, failed. Michael Milken, the man who almost single-handedly created and developed the market, was indicted for securities law violations—his firm, Drexel Burnham Lambert, failed in February 1990.

The mounting problems in the thrift industry were finally acknowledged in 1989. Congress passed the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA), which provided for an industry-wide bailout of insolvent thrifts. In January 1991 the Bank of New England, overcome by mounting real estate loan losses, was rescued by the Federal Deposit Insurance Corporation. And most recently, in yet another episode of speculation, the stability of the European Monetary System was threatened by insistent attacks on its weaker currencies by foreign-exchange speculators in September 1992.

This book attempts to understand these developments by several lines of investigation. First, in chapter 2, there is a survey of theories of financial crises that are situated within the context of the business cycle. This survey includes writers in the modern era, such as Hyman P. Minsky, Allen Sinai, and Albert M. Wajnilower. It also includes theorists from an earlier time, when financial crises were more common and more disruptive to the stability of the economy; these

include Thorstein Veblen, Wesley Clair Mitchell, and Karl Marx. In chapter 3, these theories are compared and contrasted.

Chapters 4 through 10 examine the history of financial crises in the postwar U.S. economy. The method of examination employed, dictated by the nature of the subject matter to be investigated, is institutional, dynamic, and historical. It is institutional because the particular institutions of the postwar economy—particularly institutional constraints on bank lending—have played an important role in affecting how financial crises have unfolded and developed. It is dynamic because the events of financial crises, involving uncertainty, psychological reactions, and disruptions to financial markets, cannot be understood in a static framework. Finally, it is historical because financial crises are due to an evolution of events constantly unfolding in historical time, in a process of endogenous change and perpetual disequilibrium. In the words of Joan Robinson:

Once we admit that an economy exists in time, that history goes one way, from the irrevocable past into the unknown future, the concept of equilibrium based on the mechanical analogy of a pendulum swinging to and fro in space becomes untenable. The whole of traditional economics needs to be thought out afresh.¹

Chapter 11 begins the process of generalizing and interpreting that experience by formulating a business-cycle model of financial crises. The emphasis is on understanding those developments during the business-cycle expansion that make financial crises likely at the peak. Chapter 12 evaluates the business-cycle model by systematically comparing it to the history of financial crises and to time-series data since 1961.

Despite the importance of cyclical forces in the generation of financial crises, it is necessary to take into account two different time periods in the postwar U.S. economy. The first is the period from World War II until 1966, in which financial crises (but not business cycles) were absent. The second is the period since 1982, in which financial crises became increasingly frequent and severe, and often appeared before the peak of the business-cycle expansion.

The last two chapters attempt to understand the reasons for these anomalies. Chapter 13 considers several noncyclical theories of financial crises. Their content ranges from monetarism to asymmetric information to speculation. Finally, chapter 14 analyzes the changing financial system. The analysis is significantly expanded and developed compared to the tentative ideas advanced in the first edition of this book. Specifically, it tries to understand the changing nature of financial crises in the United States by putting them into the context of the establishment and subsequent erosion of a “system of financial regulation.” Such a system brought stability after the banking crises of the 1930s, but its increasing incompatibility with the changing economic and financial conditions of the 1970s and 1980s led to increasing financial crises in the present period.

References

- Altman, Edward I. , and Sametz, Arnold W. , eds. *Financial Crises: Institutions and Markets in a Fragile Environment*. New York: John Wiley & Sons, 1977.
- Anders, George . *Merchants of Debt: KKR and the Mortgaging of American Business*. New York: Basic Books, 1992.
- Barth, James R. *The Great Savings and Loan Debacle*. Washington, DC: AEI Press, 1991.
- Beman, Lewis . "How It All Came Apart in the Eurodollar Market." *Fortune*, February 1975, p. 85.
- Bernanke, Ben . "Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression." *American Economic Review* 73 (June 1983): 257–276.
- Board of Governors of the Federal Reserve System . *Annual Report*. Various years.
- Brady, Nicholas F. *Report of the Presidential Task Force on Market Mechanisms*. Washington, DC: Government Printing Office, 1988.
- Brimmer, Andrew F. "The Federal Reserve and the Failure of Franklin National Bank: A Case Study of Regulation." In *Business and the American Economy, 1776-2001*, pp. 108-140. ed. Jules Backman . New York: New York University Press, 1976.
- Brimmer, Andrew F. "The Federal Reserve as Lender of Last Resort: The Containment of Systemic Risks." A Paper Presented Before a Joint Session of The American Economic Association and The Eastern Economic Association. Dallas, Texas, December 29, 1984.
- Brooks, John . *The Takeover Game*. New York: E.P. Dutton, 1987.
- Brack, Connie . *The Predators' Ball*. New York: Penguin Books, 1989.
- Crane, Dwight B. "Lessons from the 1974 CD Market." *Harvard Business Review* 53 (November-December 1975):73–79.
- Cosh, A.D. , Hughes, A. , and Singh, A. "Takeovers and Short Termism: Analytical and Policy Issues in the UK Economy." In *Takeovers and Short Termism in the UK*. Industrial Policy Paper No. 3. London: Institute for Public Policy Research, 1990.
- Crotty, James R. , and Goldstein, Don . "Do U.S. Financial Markets Allocate Credit Efficiently? The Case of Corporate Restructuring in the 1980s." In *Transforming the U.S. Financial System: Equity and Efficiency for the 21st Century*, eds. Gary A. Dymski , Gerald Epstein , and Robert Pollin , pp. 253–286. Armonk, NY: M.E. Sharpe, 1993.
- D'Arista, Jane W. , and Schlesinger, Tom . "The Parallel Banking System." In *Transforming the U.S. Financial System: Equity and Efficiency for the 21st Century*, pp. 157–199. eds. Gary A. Dymski , Gerald Epstein , and Robert Pollin . Armonk, NY: M.E. Sharpe, 1993.
- Davidson, Paul . *Money and the Real World*. New York: John Wiley & Sons, 1978.
- Dod, David P. "Bank Lending to Developing Countries." *Federal Reserve Bulletin* 67 (October 1981):647–656.
- Eckstein, Otto , and Sinai, Allen . "The Mechanisms of the Business Cycle in the Postwar Era." In *The American Business Cycle: Continuity and Change*, ed. Robert J. Gordon . Chicago: University of Chicago Press, 1986.
- Fay, Stephen . *Beyond Greed*. New York: Penguin Books, 1983.
- Federal Reserve Bank of New York . *Annual Report*. Various years.
- Federal Reserve Bank of New York . *A Report on Drysdale and Other Recent Problems of Firms Involved in the Government Securities Market*. 15 September 1982.
- Fisher, Irving . "The Debt-Deflation Theory of Great Depressions." *Econometrica* 1 (October 1933):337–357.
- Flynn, Sean . *The Evolution of Finance. Bank Interdependence, and the Danger of Bank Failures in the Modern U.S. Economy*. Ph.D. dissertation, University of Notre Dame, 1993.
- Friedman, Milton . "Wesley C. Mitchell as an Economic Theorist." In *Wesley Clair Mitchell, The Economic Scientist* ed. Arthur F. Burns , pp. 237-282. New York: National Bureau of Economic Research, 1952.
- Friedman, Milton . *Dollars and Deficits*. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1968a.
- Friedman, Milton . "Why the American Economy is Depression-Proof." In *Dollars and Deficits* pp. 72–96. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968b.
- Friedman, Milton . "The Monetary Theory and Policy of Henry Simons." In *The Optimum Quantity of Money and Other Essays* pp. 81-93. Chicago: Aldine Publishing Co., 1969a.

Friedman, Milton . *The Optimum Quantity of Money and Other Essays*. Chicago: Aldine Publishing Co., 1969b.

Friedman, Milton , and Schwartz , Anna Jacobson . *A Monetary History of the United States 1867–1960*. Princeton, NJ: Princeton University Press, 1963.

Friedman, Milton . “Money and Business Cycles.” In *The Optimum Quantity of Money and Other Essays* pp. 189-236. Chicago: Aldine Publishing Co., 1969.

Galbraith , John Kenneth . *The Great Crash: 1929*. Boston: Houghton Mifflin Co., 1988.

Galbraith , John Kenneth . *A Short History of Financial Euphoria*. New York: Viking Penguin, 1993.

Ghilarducci, Teresa . *Labor’s Capital: The Economics and Politics of Private Pensions*. Cambridge, MA: The MIT Press, 1992.

Gordon, David M. , Edwards, Richard , and Reich, Michael . *Segmented Work, Divided Workers: The Historical Transformation of Labor in the United States*. Cambridge, England: Cambridge University Press, 1982.

Greider, William . *Secrets of the Temple: How the Federal Reserve Runs the Country*. New York: Simon and Schuster, 1987.

Greenspan, Alan . “Statement by Chairman Greenspan on Providing Liquidity to the Financial System.” *Federal Reserve Bulletin* 73 (December 1987), p. 915.

Greenspan, Alan . “Statement to the Senate Committee on Banking, Housing and Urban Affairs, February 2, 1988.” *Federal Reserve Bulletin* 74 (April 1988): 217–225.

Jensen, Michael . “Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers.” *American Economic Review* 76 (June 1986):323–329.

Kaufman, Henry . “Financial Crises: Market Impact, Consequences, and Adaptability.” In *Financial Crises: Institutions and Markets in a Fragile Environment* eds. Edward I. Altman and Arnold W. Sametz , pp. 153-159. New York: John Wiley & Sons, 1977a.

Kaufman, Henry . Foreword to *Financial Crises: Institutions and Markets in a Fragile Environment*. eds. Edward I. Altman and Arnold W. Sametz . New York: John Wiley & Sons, 1977b.

Kindleberger, Charles P. *Manias, Panics, and Crashes: A History of Financial Crises* rev. ed. New York: Basic Books, 1989.

Kindleberger, Charles P. and Laffargue, Jean-Pierre , eds. *Financial Crises: Theory, History, and Policy*. Cambridge, England: Cambridge University Press, 1982.

Kotz, David , McDonough, Terrence , and Reich, Michael , eds. *Social Structures of Accumulation: The Political Economy of Growth and Crisis*. Cambridge, England: Cambridge University Press, 1984.

Krus, Jill . *Saving the Financial System: Financial Reform in the 1930s*. Ph.D. dissertation, University of Notre Dame, 1993.

Maisel, Sherman J. *Managing the Dollar*. New York: W.W. Norton & Company, 1973.

Marx, Karl . *Capital*. 3 vols. New York: International Publishers, 1967.

Marx, Karl . *Theories of Surplus Value*. 3 parts. Moscow: Progress Publishers, 1968.

Mayer, Martin . *The Greatest-Ever Bank Robbery: The Collapse of the Savings and Loan Industry*. New York: Charles Scribner’s Sons, 1990.

McLaughlin, Mary M. , and Wolfson, Martin H. “The Profitability of Insured Commercial Banks in 1987.” *Federal Reserve Bulletin* 74 (July 1988):403–418.

Melton, William C. “The Market for Large Negotiable CDs.” *Quarterly Review of the Federal Reserve Bank of New York* 2 (Winter 1977–78):22–34.

Minsky, Hyman P. “Longer Waves in Financial Relations: Financial Factors in the More Severe Recessions.” *American Economic Review* 54 (May 1964):324-335.

Minsky, Hyman P. “Financial Resources in a Fragile Financial Environment.” *Challenge* 18 (July-August 1975a):6–13.

Minsky, Hyman P. *John Maynard Keynes*. New York: Columbia University Press, 1975b.

Minsky, Hyman P. “The Financial Instability Hypothesis: An Interpretation of Keynes and an Alternative to ‘Standard’ Theory.” *Challenge* 20 (March-April 1977a):20-27.

Minsky, Hyman P. “A Theory of Systemic Fragility.” In *Financial Crises: Institutions and Markets in a Fragile Environment* eds. Edward I. Altman and Arnold W. Sametz , pp. 138-152. New York: John Wiley & Sons, 1977b.

Minsky, Hyman P. "Finance and Profits: The Changing Nature of American Business Cycles." In U.S. Congress, Joint Economic Committee, *The Business Cycle and Public Policy, 1929-80* pp. 209-244. Washington, DC: Government Printing Office, 1980.

Minsky, Hyman P. "The Federal Reserve: Between a Rock and a Hard Place." *Challenge* 23 (May-June 1980a):30-36.

Minsky, Hyman P. "Capitalist Financial Processes and the Instability of Capitalism." *Journal of Economic Issues* 14 (June 1980b):505-523.

Minsky, Hyman P. "Financial Markets and Economic Instability, 1965-1980." *Nebraska Journal of Economics and Business* 20 (Autumn 1981):5-16.

Minsky, Hyman P. "The Financial-Instability Hypothesis: Capitalist Processes and the Behavior of the Economy." In *Financial Crises: Theory, History, and Policy* eds. Charles P. Kindleberger and Jean-Pierre Laffargue , pp. 13-39. Cambridge: Cambridge University Press, 1982a.

Minsky, Hyman P. "The Financial Instability Hypothesis: A Restatement." In *Can "It" Happen Again? Essays on Instability and Finance* pp. 90-116. Armonk, NY: M.E. Sharpe, 1982b.

Minsky, Hyman P. *Can "It" Happen Again? Essays on Instability and Finance*. Armonk, NY: M.E. Sharpe, 1982c.

Minsky, Hyman P. "Debt Deflation Processes in Today's Institutional Environment." *Banca Nazionale del Lavoro Quarterly Review* 143, pp. 377-393.

Mishkin, Frederic S. "Asymmetric Information and Financial Crises: A Historical Perspective." In *Financial Markets and Financial Crises* ed. R. Glenn Hubbard , pp. 69-108. Chicago: University of Chicago Press, 1991.

Mitchell, Wesley Clair . *Business Cycles and Their Causes*. Berkeley: University of California Press, 1941.

Mittlestaedt, H. Fred . "Wealth Transfers Associated with Terminations of Acquired Firms' Overfunded Defined Benefit Plans." Final Report for the Department of Labor, Contract J-9-P-8-0095, 1989.

Modigliani, Franco . "Black Monday in Retrospect and Prospect: A Roundtable." *Eastern Economic Journal* 14 (October-December 1988):339-342.

Moore, Geoffrey . *Business Cycles, Inflation, and Forecasting*. Cambridge, MA: Ballinger Press for the National Bureau of Economic Research, 1980.

Moran, Michael J. "Thrift Institutions in Recent Years." *Federal Reserve Bulletin* 68 (December 1982):725-738.

Phillips, Susan M. "Statement before the Committee on Banking, Finance and Urban Affairs, U.S. House of Representatives." 28 October 1993.

Pickering, Margaret . *A Review of Corporate Restructuring Activity, 1980-90*. Staff Study 161. Washington, DC: Board of Governors of the Federal Reserve System, May 1991.

Robertson, Wyndham . "How the Bankers Got Trapped in the REIT Disaster." *Fortune* March 1975, p. 113.

Rose, Sanford . "What Really Went Wrong at Franklin National." *Fortune* October 1974, p. 118.

Rosenberg, Samuel , and Weisskopf, Thomas . "A Conflict Theory Approach to Inflation in the Postwar U.S. Economy." *American Economic Review* 71 (May 1981):42-47.

Schwartz, Anna . "Real and pseudo-financial crises." In *Financial Crises and the World Banking System* eds. F. Capie and G. Wood , pp. 11-31. New York: St. Martin's, 1986.

Shleifer, Andrei , and Summers, Lawrence . "Breach of Trust in Hostile Takeovers." In *Takeovers: Causes and Consequences* ed. Alan Auerbach , pp. 33-68. Chicago: University of Chicago Press, 1988.

Sinai, Allen . "Credit Crunches—An Analysis of the Postwar Experience." In *Parameters and Policies in the U.S. Economy* ed. Otto Eckstein , pp. 244-274. Amsterdam: North Holland, 1976.

Sinai, Allen . Discussion of Papers on The American Financial Environment. In *Financial Crises: Institutions and Markets in a Fragile Environment* eds. Edward I. Altman and Arnold W. Sametz , pp. 187-203. New York: John Wiley & Sons, 1977.

Sinai, Allen . "Credit Crunch Possibilities and the Crunch Barometer," *The Data Resources Review of the U.S. Economy*. June 1978, pp. 1-18.

Sinai, Allen . "Crunch Impacts and the Aftermath." *The Data Resources Review of the U.S. Economy*. June 1980, pp. 37-60.

Sinai, Allen . "Financial and Real Business Cycles." *Eastern Economic Journal* 18 (Winter 1992): 1-54.

Sinkey, Joseph F. Jr. "The Collapse of Franklin National Bank of New York." *Journal of Bank Research* 7 (Summer 1976): 113-122.

Southern Finance Project . *Bailed Out Thrifts: A Profile of America's Biggest S&L Failures*. September 1990.

Southern Finance Project . *Fortunate Sons: Three Years of Dealmaking at the Resolution Trust Corporation*. September 1992.

Spero, Joan Edelman . *The Failure of the Franklin National Bank: Challenge to the International Banking System*. New York: Columbia University Press, 1980.

Stewart, James B. *Den of Thieves*. New York: Simon and Schuster, 1991.

Stewart, James B. and Hertzberg, Daniel . "How the Stock Market Almost Disintegrated a Day After the Crash." *Wall Street Journal* 20 November 1987, p. 1.

Stiglitz, Joseph , and Weiss, Andrew . "Credit Rationing in Markets with Imperfect Information." *American Economic Review* 71 (June 1981):393-410.

Sweezy, Paul M. , and Magdoff, Harry , "The Long-Run Decline in Liquidity." *Monthly Review* 22 (September 1970).

Todd, Walker F. , and Thomson, James B. "An Insider's View of the Political Economy of the Too Big to Fail Doctrine." Working Paper 9017, Federal Reserve Bank of Cleveland, December 1990.

U.S. Congress. House Committee on Banking, Finance, and Urban Affairs . *Penn Square Bank Failure. Hearings before the House Committee on Banking, Finance, and Urban Affairs* Part 1, 97th Cong., 2nd sess., 1982; Part 2, 97th Cong., 2nd sess., 1983.

U.S. Congress. House Committee on Government Operations . *Silver Prices and the Adequacy of Federal Actions in the Marketplace*, 1979-80. Hearings before a Subcommittee of the House Committee on Government Operations 96th Cong., 2nd sess., 1980.

U.S. Congress. House Committee on Banking, Finance, and Urban Affairs . *Inquiry into Continental Illinois and Continental Illinois National Bank*. Hearings before the Subcommittee on Financial Institutions Supervision, Regulation, and Insurance of the Committee on Banking, Finance and Urban Affairs 98th Cong., 2nd sess., 1984.

U.S. Congress. House Committee on Banking, Finance, and Urban Affairs . *Staff Report. The Bank of New England Failure and Resolution* 102nd Cong., 1st sess., 1991.

U.S. Congress. Senate Committee on Agriculture, Nutrition, and Forestry . *Report of the Commodity Futures Trading Commission on Recent Developments in the Silver Futures Markets* 96th Cong., 2nd sess., 1980.

U.S. Congress. Senate Committee on Banking, Housing, and Urban Affairs . *Real Estate Investment Trusts*. Hearings before the Committee on Banking, Housing, and Urban Affairs 94th Cong., 2nd sess., 1976.

U.S. Congress. Senate Committee on Banking, Housing, and Urban Affairs . *Disturbances in the U.S. Market*. Hearing before the Subcommittee on Securities of the Senate Committee on Banking, Housing, and Urban Affairs 97th Cong., 2nd sess., 1982.

U.S. Congress. Senate Committee on Banking, Housing, and Urban Affairs . *Failure of Penn Square Bank*. Hearing before the Senate Committee on Banking, Housing, and Urban Affairs 97th Cong., 2nd sess., 1983.

U.S. Securities and Exchange Commission . *The Silver Crisis of 1980*. 1982.

Veblen, Thorstein . *The Theory of Business Enterprise*. NY: Charles Scribner's Sons, 1904.

Volcker, Paul A. "Statement Before the Joint Economic Committee, July 30, 1984." *Federal Reserve Bulletin* 70 (August 1984):632-636.

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

Wilber, Charles K. , with Harrison, Robert S. "The Methodological Basis of Institutional Economics." *Journal of Economic Issues* 12 (March 1978):61-89.

Wojnilower, Albert M. "The Central Role of Credit Crunches in Recent Financial History." *Brookings Papers on Economic Activity* No. 2 (1980), pp. 277-326.

Wojnilower, Albert M. "Private Credit Demand, Supply and Crunches: How Different are the 1980s?" *American Economic Review* 15 (May 1985):351–356.

Wojnilower, Albert M. "The Causes of Financial Instability." *Journal of Post Keynesian Economics* 12 (Spring 1990): 333-355.

Wolfson, Martin H. "Financial Developments of Bank Holding Companies in 1984." *Federal Reserve Bulletin* 71 (December 1985): 924-932.

Wolfson, Martin H. "Corporate Restructuring and the Budget Deficit Debate." *Eastern Economic Journal* 19 (Fall 1993):495-519.

Wolfson, Martin H. "The Evolution of the Financial System and the Possibilities for Reform," in *Transforming the U.S. Financial System: Equity and Efficiency for the 21st Century* pp. 133-155. eds. Gary A. Dymski , Gerald Epstein , and Robert Pollin . Armonk, NY: M.E. Sharpe, 1993.

Wolfson, Martin H. "Irving Fisher's Debt-Deflation Theory: Its Relevance to Current Conditions." *Cambridge Journal of Economics*. Forthcoming, 1995.

Wolfson, Martin H. "The Financial System and the Social Structure of Accumulation." In *Social Structures of Accumulation: The Political Economy of Growth and Crisis* eds. David Kotz, Terrence McDonough , and Michael Reich . Cambridge, England: Cambridge University Press, 1994.

Wolfson, Martin H. "A Methodological Framework for Understanding Institutional Change in the Capitalist Financial System," *Social Concept* 1994.

Wolfson, Martin H. , and McLaughlin, Mary M. "Recent Developments in the Profitability and Lending Practices of Commercial Banks." *Federal Reserve Bulletin* 75 (July 1989): 461-484.