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Author(s): Maury Klein
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Maury Klein

The Stock Market Crash of 1929: A Review Article

The stock market crash of 1929, a major trauma that still haunts the national memory, has received surprisingly little attention from scholars in seventy years and has produced even less agreement as to its causes and consequences. This review of the literature suggests that the disagreements and debates over the crash reveal as much about what can and cannot be known for certain about the event as they do about potential answers to the mysteries of the crash.

Few historical problems continue to perplex scholars more than the Great Crash of 1929. More than seventy years later, the story of the crash remains well known but continues to defy clear or convincing explanation. Three questions in particular remain as vivid and elusive today as they did then: What caused the crash? What was the relation of the crash to the long depression that ensued? Could such a crash and depression happen again? In our own era, when an aged but seemingly indomitable bull market seems at last to have floundered, the last question has taken on an urgency that transcends mere scholarship. In reviewing the literature on this subject, this article explores not only the range of positions taken on these questions but also the broader issue of why so little agreement has been reached. It suggests as well some ways in which the crash illustrates certain limitations in the approaches used by scholars to tackle such historical questions.

Unlike most market disasters, the Great Crash was not the event of one day but a series of events stretched initially across the week from Wednesday, October 23, through Thursday, October 31. During these eight frantic sessions, a total of nearly 70.8 million shares were traded—more than had changed hands in any *month* prior to March

MAURY KLEIN is professor of history at the University of Rhode Island.

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1928. The Dow Jones average dropped 53 points, from 326.51 to 273.51 and the *New York Times* combined average, 50.21 points: from 280.21 to 230.[1] In broader terms, the crash extended until November 13, by which time the Dow had fallen another 74.82 to 198.69 and the *Times* average, another 63.8—to 166.15. Altogether the Dow lost 39 percent and the *Times* average, 41 percent. Of the seven abbreviated trading sessions during those bleak November days, only one registered a gain.[2] Although the drama of the October sessions remains the popular image of the crash, contemporary observers paid almost as much attention to the following two weeks as a harbinger of what the crash meant for the future.

Perhaps the most surprising aspect of the literature covering an event that ranks so high on the roster of national traumas is its paucity. While many books touch on the event as part of some larger study, only a handful have been devoted entirely to the crash, its causes and aftermath. Some have offered intriguing explanations or hypotheses, but none has provided convincing answers. As David M. Kennedy observed, "The disagreeable truth . . . is that the most responsible students of the events of 1929 have been unable to demonstrate an appreciable cause-and-effect linkage between the Great Crash and the Depression."[3] Nor have they explained satisfactorily what caused the crash or the relevance, if any, of that experience to later market behavior.

Causes of the Crash

Within months after the crash, financial writers and economists tried to fathom the event and its significance for the future. One of the first, H. Parker Willis, singled out the Federal Reserve System as "fundamentally and primarily a cause of the panic of 1929 by permitting the use of banking funds in an unduly large degree and without adequate

[1] Throughout this article, all figures for the Dow are taken from Phyllis S. Pierce, ed., *The Dow Jones Averages 1885–1995* (Chicago, 1996), which has no page numbers. The *Times* figures are drawn from the newspaper itself; the combined average included twenty-five industrials and twenty-five railroads.

[2] The New York Stock Exchange's board of governors shortened daily trading sessions from five to three hours and eliminated the Saturday short session to allow brokerages and others to catch up on the immense backlog of paperwork generated by the crash. Normal trading hours and days resumed on November 26. The Exchange also closed on Tuesday, November 5, for election day.

[3] David M. Kennedy, *Freedom from Fear: The American People in Depression and War, 1929–1945* (New York, 1999), 39.

protection, in promoting speculation."[4] The Fed became a favorite scapegoat for many critics, first for its easy money policy in 1927 and then for its failure to raise interest rates quickly enough in March 1928 and during 1929, despite many urgent appeals for it to do so.[5] One of the Federal Reserve Board's own members, Adolph Miller, called the 1927 reduction "one of the most costly errors committed by it or any other banking system in the last 75 years." Inflation of credit became an early and popular entrant as a cause, but tight credit soon joined it as different critics blamed the Fed for not tightening credit fast or far enough in 1929, or for tightening it too much.[6]

Irving Fisher of Yale, one of era's best-known economists, took a different tack in a book completed shortly after the crash.[7] Later writers have caricatured Fisher as a poster child for the illusions that fueled the bull market, but his analysis proved deeper than anything attempted for another three decades.[8] Brushing aside the simplistic explanations of politicians and others, Fisher offered a detailed portrait of economic and financial fundamentals. He was the first analyst to compile a useful list of the causes for the crash given by a variety of others and to suggest a more complex scenario for its onset.[9]

[4] H. Parker Willis, "Who Caused the Panic of 1929?" *North American Review* 229 (Feb. 1930), 177. Emphasis is in the original. Willis was editor of the New York *Journal of Commerce.* For some other early articles, see Albert Atwood, "The Appetite for Stock," *Saturday Evening Post* (April 19, 1930), and "The Future of Stock Speculation," *Saturday Evening Post* (Sept. 13, 1930); Howard Florance, "What Really Happened?" *Review of Reviews* (Jan. 1930); John T. Flynn, "The Birthday of the Slump," *Forum* (Nov. 1930); Paul W. Garrett, "The Jazz Age in Finance," *North American Review* (Feb. 1930); Edwin Lefevre, "A Trip on the Magic Carpet," *Saturday Evening Post* (Feb. 1, 1930), and "The Long and the Short of It," *Saturday Evening Post* (Dec. 13, 1930); Louis T. McFadden, "Convalescent Finance," *Saturday Evening Post* (Feb. 15, 1930); Will Payne, "Deflation," *Saturday Evening Post* (May 3, 1930); Burton Rascoe, "The Grim Anniversary," *New Republic* (Oct. 29, 1930); George E. Roberts, "Lessons of the Stock Panic," *Outlook* (Jan. 8, 1930); and Max Winkler, "Paying the Piper," *North American Review* (Jan. 1930).

[5] For more detail and differing views on these events and the role of the Federal Reserve Board during the 1920s, see the relevant chapters in the following books: Lester V. Chandler, *Benjamin Strong: Central Banker* (Washington, D.C., 1958); Milton Friedman and Anna Jacobson Schwartz, *A Monetary History of the United States, 1867–1960* (Princeton, 1963); and Elmus R. Wicker, *Federal Reserve Monetary Policy, 1917–1933* (New York, 1966).

[6] Chandler, *Benjamin Strong*, 438. Miller made the statement in 1931.

[7] Irving Fisher, *The Stock Market Crash—and After* (New York, 1930).

[8] For a sketch of Fisher, see Irving Norton Fisher, *My Father Irving Fisher* (New York, 1956). Fisher is most often mocked for his famous statement, made on the eve of the crash: "Stock prices have reached what looks like a permanently high plateau." But the only source given for that remark is Edward Angly, *Oh Yeah?* (New York, 1931), 38, a satirical volume "Compiled from Newspapers and Public Records." In most cases, Angly gave at least the source of the statement, but for this one he did not.

[9] Fisher, *The Stock Market Crash—and After*, 31–55. The potential causes included the wholesale liquidation of foreign holdings driven by falling prices on the British, French, and German exchanges; the use and abuse of unregulated investment companies by major com-

Fisher singled out the huge outpouring of new security offerings, which peaked in September and October, as hurling "the top-heavy market into the abyss." He agreed that the Fed had erred by not raising interest rates sharply between the fall of 1928 and the spring of 1929. Unlike most postmortem analysts, however, Fisher defended the high level of stock prices prior to the run-up during the summer of 1929 as reflecting genuine gains in the economy. He presented a detailed argument that the economy had shown extraordinary growth prior to the fall of 1929 and concluded, "The overextension that produced this violent reaction was not all foolish."[10]

Fisher also saw other, more complex, factors behind the panic. A pioneer in monetary theory, he noted that an outflow of $500 million in gold during 1927 led New York City banks to withdraw from the call loan market, only to have their place taken by corporations, individuals, and foreigners lured by high interest rates. He endorsed the view of George E. Roberts of National City Bank that the market "had found a way to go around the banking system to the original sources of funds, that is, in savings, profits and other free funds that would normally go into permanent investments." This led to a "rebound" effect, in which the high returns on call loans brought American capital home from overseas, forcing foreign banks to raise their rates and in some cases impose embargoes on gold exports to the United States. By September 1929, the growing financial crises abroad, spurred partly by the collapse and bankruptcy of Clarence Hatry's industrial empire in Great Britain, led some foreign holders to liquidate their American holdings.[11]

One of the era's most astute financial writers, Alexander Dana Noyes, saw the crash very differently. Noyes served as financial editor

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mercial banks; the overvaluation of common stock; the onset of a business recession that autumn; the federal tax on capital gains; the refusal of the Massachusetts Public Service Commission to allow a split in the Edison Company of Boston's stock; the high level of brokers' loans; the enormous sums put into the call loan market by corporations and individuals; poor margin calculations; fear of the impending Smoot-Hawley tariff; the glut of undigested securities in the market, most of them for investment trusts; the withdrawal of gold from New York; and the "boom" or New Era enthusiasm that led investors to believe prices could only go higher despite warning signs to the contrary.

[10] Ibid., 5–6, 65–197, 233–7. "If it can be shown that business was in an extraordinarily healthy condition . . . during these years and up to the present," Fisher asserted, "it will be seen that the new plateau of stock prices which remains after the panic higher than all previous plateaus, was justified, even though the peak of September, 1929, rose too high."

[11] Ibid., 226–31. Canada and Argentina imposed gold embargoes. For a brief account of the Hatry failure, see Robert T. Patterson, *The Great Boom and Panic: 1921–1929* (Chicago, 1965), 92–4. For Fisher's background as a monetary theorist, see the profile of him in John A. Garraty and Mark C. Carnes, eds., *American National Biography* (New York, 1999), vol. 8: 12–15.

of the *New York Times* from 1920 until his death in 1945. No journalist knew Wall Street better than Noyes or took a more skeptical view of it. During 1928 and 1929, Noyes had warned *Times* readers repeatedly "in the strongest and most emphatic language, against the prevalent illusion of perpetually rising prices and perpetually increasing prosperity." In a 1938 memoir he characterized the "wild speculation and panic of 1929" as bringing a "sudden recognition of economic realities. It punctured, almost overnight, the ill-fated Stock Exchange illusions. No more was heard of the new economic era."[12]

Conceding that the Federal Reserve's easy money decision in 1927 proved wrong in retrospect, Noyes argued that it seemed reasonable at the time. "Employment, building construction, railway freight loadings and average prices of commodities were all at the lowest in two years," he noted, and the Federal Reserve Board's own monthly production index had dropped below the 1923–25 average for the first time since 1924. A more important consideration to Noyes was an export surplus that totaled $2.7 billion for four years, higher than any prior to 1914. This surplus helped spur a sharp increase in subscriptions to foreign loans, many of them from South America and Central Europe, which were "of quality much inferior to the loans . . . made to the great Western European governments."[13]

Throughout Noyes's observations, both at the time and later, ran the theme of an age swept into the financial abyss by its illusions. "Anyone who was close to the Wall Street scene," he recalled, "could not mistake the psychological change . . . even among seasoned professional speculators who had lived through many similar illusions." So powerful was its hold that those who dared to challenge the New Era mantra were reviled or ignored. In March 1929, banker Paul Warburg blasted the "orgies of unrestrained speculation" and predicted that, unless checked, they would "bring about a general depression involving the entire country." As Noyes remembered it, the warning "first caused alarm, then indignation, and presently, when the stock market resumed its upward rush, expression of supercilious contempt." The resurgence of the market early in 1930 revived hope, but when it sank again in

[12] Alexander Dana Noyes, *The Market Place: Reminiscences of a Financial Editor* (Boston, 1938), 337, 351. For a brief and inadequate sketch of Noyes, see his obituary in the *New York Times*, April 23, 1945. Before coming to the *Times*, he had long held the same position with the New York *Evening Post*. A close reading of the *Times* for 1928–29 confirms that Noyes did consistently warn against what he considered the illusions of his era.

[13] Ibid., 315–17, 358. In 1927 alone, Noyes noted, the American market subscribed to loans from more than twenty governments as well as a hundred company loans offered by firms in seventeen foreign countries.

June, "illusion disappeared. The harsh realities of the whole situation began to present themselves."[14]

Illusion was for Noyes the fuel driving the orgy of speculation that produced the crash. The breadth of its influence could be seen in "a wholly new phenomenon. Workingmen whose imagination or covetousness had been aroused by the 'New Era talk,'" found access to speculation easy through a "country-wide network of branch offices set up by Wall Street commission houses." Some large corporations offered employees plans for investing in the company's stock. On Wall Street, leading speculators, who had long been creatures of the dark, "came personally into the limelight, giving out interviews and radio broadcasts which the newspapers printed, declaring that Stock Exchange prices were too low." The market moved to the center of the culture, an absorbing topic of conversation on Main Street no less than on Wall Street.[15]

Two other books exerted far more influence on later writers than either Fisher or Noyes and did much to shape the prevailing view of the stock-market crash: *Only Yesterday* (1931) by Frederick Lewis Allen and *The Great Crash* (1955) by John Kenneth Galbraith.[16] Both have the virtue of being lively, well-written accounts that entertain as well as inform.[17] Allen's work, like that of Fisher, is even more remarkable for having been written immediately after the event. With barely a hint of the long, dark depression that would soon settle over the land, Allen depicted the 1920s as a striking new era in American life, marked by a "revolution in manners and morals," bounded by the end of World War I on one side and the Great Crash on the other.[18]

[14] Ibid., 323–4, 343; *Commercial and Financial Chronicle*, March 9, 1929, 1444. "In aeronautics the public is inclined to look upon the art of rising into the air as the sole accomplishment," Warburg noted. "The layman is apt to overlook the fact that the mastery of the art of descending is of equal if not greater importance."

[15] Ibid., 325–7.

[16] Frederick Lewis Allen, *Only Yesterday: An Informal History of the 1920's* (New York, 1931); John Kenneth Galbraith, *The Great Crash* (Boston, 1955). I do not use the term "popular literature" in any pejorative sense but rather as a designation for works that reached a broad audience and often, as in the case of these two books, do not include thorough documentation. Allen has no notes but includes an appendix on sources; Galbraith provides some sparse notes and a brief note on sources.

[17] Allen's depiction of the social history of the 1920s became the template for that era much as did Matthew Josephson's portrait of the Robber Barons three years later. Unlike Josephson's, however, Allen's work is remarkable for how much he got right about the era and its people. Indeed, Allen published a far more illuminating portrait of the business and Wall Street titans only a year after Josephson's book appeared. See Frederick Lewis Allen, *The Lords of Creation* (New York, 1935).

[18] Allen, *Only Yesterday*, 73. These citations come from the 1964 paperback edition of the work.

The new era portrayed by Allen was driven by real improvements in the quality of life for a widening stream of people and by a growing faith that prosperity, with all its benefits, would continue its upward progress indefinitely. The crash shattered this illusion with shocking finality and replaced it with new attitudes that could not be clearly discerned in 1930. Five years later, in a work that has received less attention than it deserves, Allen drew a fuller portrait of the financial world and its leaders in *The Lords of Creation.* By then he had experienced not only the full depths of the depression but also the congressional inquiry into the stock market that transformed major bankers and businessmen from cultural heroes into the villains of a national morality play.[19]

Besides fashioning a compelling group portrait of the financial titans of the 1920s, Allen depicted what amounted to a chain reaction in the spread of New Era gospel: As securities trading became "the most powerful engine of American economic expansion," the enthusiasm generated by rising prices drove financiers and industrialists into "vast and perilous schemes for the development and control of industry and trade." The "theories of American prosperity . . . forced in this hothouse" permeated the thinking of people across the nation. Allen dismissed the surging bull market as "a gamble pure and simple" and the rationale offered by "the apostles of the new era" as fantastic. Nor could anyone exert control or stabilizing influence over its excesses. The ability of the House of Morgan and other great banking institutions to preserve order was a myth decisively shattered by the crash.[20]

Like Allen's, Galbraith's work can be read as a genial morality play, albeit one with even more bite. He shared Allen's view that the "striking thing about the stock market speculation of 1929 was not the massiveness of the participation. Rather it was the way it became central to the culture." However, Galbraith, with the benefit of hindsight, probed more deeply into cause and consequence. He disputed the prevailing conventional wisdom that by the autumn of 1929 the economy was well into a depression, that the market's fall reflected a change "which was already apparent in the industrial situation," and that it revealed "an image of the underlying or *fundamental* economic situation." Noting that the economic decline was modest until September or October, he concluded that "the crash did not come . . . because the market suddenly became aware that a serious depression was in the offing."[21]

[19] See "Stock Exchange Practices," *Report of the Committee on Banking and Currency*, 73rd Cong., 2nd Sess., No. 1455 (Washington, 1934).

[20] Allen, *The Lords of Creation*, 347–9, 361–3.

[21] Galbraith, *Great Crash*, 83, 93–5.

For Galbraith, the singular feature of the crash was that "the worst continued to worsen."[22] Unlike past disasters, this one did not absorb the shock and move on to better days. Investors caught in the crash and unable to meet margin calls were wiped out, but so were those who ventured back amid the debris in search of bargains. Even much of the smart money that cashed in before the crash could not resist coming back at some point during the ensuing year. All suffered alike as the Great Crash turned into the Great Slide—a market that spiraled relentlessly downward until it finally touched bottom on July 8, 1932, when the Dow Jones average hit 41.22 and the *New York Times* combined average, 34.43. At its peak on September 3, 1929, the former had stood at 381.17, while the latter had reached a high of 306.79 on September 19.

Galbraith believed that the crash could be much more readily explained than the depression that followed because its causes "were all in the speculative orgy that preceded it." Admitting that no one knew "why a great speculative orgy occurred in 1928 and 1929," he dismissed as nonsense the simplistic notion that easy credit impelled people to buy stocks on margin. "Far more important than rate of interest and the supply of credit," he emphasized, "is the mood." Amid the prosperity of the New Era, the market "took leave of reality." In effect, the crash amounted to a painful return to reality.[23]

After Galbraith's book, no serious study of the crash appeared until the 1960s. Milton Friedman and Anna Schwartz included a substantial account of the event in their broader monetary history published in 1963 but said little about the causes of the crash.[24] The first work devoted entirely to the subject came two years later with Robert T. Patterson's *The Great Boom and Panic: 1921–1929.* Although an economist by trade, Patterson wrote a traditional historical account that sought to explain what happened. "The causes of the panic, and of the depression that it heralded," he concluded, "were complex and deeply rooted. They were spread out over the world." Most of them, however, "were associated with the dominant one, namely, *inflation*; that is, an unwarranted increase in currency and bank credit."[25]

[22] Ibid., 113.

[23] Ibid., xx, 173–7. "Early in 1928," Galbraith wrote, "the nature of the boom changed. The mass escape into make-believe, so much a part of the true speculative orgy, started in earnest." Ibid., 16.

[24] Friedman and Schwartz, *Monetary History*, 299–419. Arthur M. Schlesinger Jr. provided a brief account in the first volume of his Roosevelt trilogy in 1957. Arthur M. Schlesinger Jr., *The Crisis of the Old Order* (Boston, 1957), 155–7.

[25] Patterson, *The Great Boom and Panic: 1921–1929*, vii, 215. Although Patterson's work contained footnotes and a bibliography, it was, like Galbraith's, clearly intended for a general audience.

Patterson resurrected an older theme that "the inflationary extension of credit, not only for stock speculation but for business, real estate, and consumer purchases, had led to an unwholesome, illiquid debt condition on an enormous scale." To this was added a cluster of international financial troubles—war debts and reparations, the reconstruction of Europe, unbalanced national budgets, weak national currencies, trade restrictions—all aggravated by a profound sense of distrust among nations. Patterson reasoned that a "significant tightening of credit at any point in the course of the stock-market boom might quickly have brought the boom to a halt." The early 1920s had witnessed a sound recovery that, after 1925, gave way to the notion that "a New Era of perpetual boom was at hand." The Federal Reserve Board exacerbated the problem by loosening credit at the very times when it should have been tightened. President Calvin Coolidge approved the expansion and did nothing to halt it, while Hoover found it disturbing but never publicly expressed his displeasure and did little to slow its accelerating pace.[26]

The result was a grand illusion of the New Era: that the relatively new Federal Reserve System could use its instruments of currency and credit control to prevent extremes of boom and bust from occurring, thereby ending the tyranny of the business cycle with its recurring rhythms of contraction and expansion. This "widespread belief in the immunity of the economy from adverse developments" became something of a faith. Hoover later cited some of its mantras: "We shall have no more financial panics. . . . Panics in the future are unthinkable. . . . Never again can panic come to the American people." Patterson considered this illusion, along with "money-credit inflation," to be the primary causes of the boom as well as the "corrective panic and depression that followed."[27]

In his emphasis on credit inflation, Patterson echoed the argument advanced by Willis in 1930 and repeated by Hoover in his memoirs. The former president lambasted the Federal Reserve Board for having persistently inflated credit since 1925 despite warnings from himself and others, with consequences that were "disastrous to our economy." In his reconstruction of the past, Hoover cast himself as the little Dutch boy struggling valiantly to plug the dikes of runaway credit inflation and excessive speculation to no avail. Bemoaning the "exhibition of waste, fraud, and greed which flowed from this artificial credit

[26] Ibid., 215–23.
[27] Ibid., 224–6.

inflation," Hoover observed sourly, "There are crimes far worse than murder for which men should be reviled and punished." He also denounced the banking system as "the weakest link in our whole economic system."[28]

After Patterson's 1965 book, twenty years passed before another full-scale scholarly study of the crash appeared. During that time, several works touched on the crash as part of broader studies. Robert Sobel, whose enormous output hovered consistently between the popular and the scholarly, visited the subject in several books—most notably in *The Great Bull Market* (1968).[29] In these works, he sought to dispel the cluster of myths surrounding the crash and its aftermath—most of them perpetuated by Galbraith's book. Galbraith had observed, "As a year, 1929 has always been peculiarly the property of the economists." In Sobel's view, the economists had provided "excellent analyses of the reasons for the Great Crash" but paid too little attention to the "psychological and social factors involved in this event." Nor had they shown any convincing evidence of the ties between the crash and the ensuing depression.[30]

Like Fisher, Sobel challenged the conventional wisdom that stocks had been greatly overpriced in 1929 by an orgy of speculation. He saw the bull market of the 1920s as "not only natural, but overdue," and the rise in stock prices as dramatic but not unreasonable. The crash resulted not from a runaway market but from "weaknesses on Wall Street and in Washington, and the creation of an unhealthy nexus between business and speculation, especially in brokers' loans." These weaknesses in turn stemmed from the inability of financial and political leaders to "come to grips with the nation's problems and possibilities after the war. This led to abuses, mistakes, and excesses." Sobel's view was supported in a brief 1975 article by Gerald Sirkin, who found stock price levels to be more reasonable and rational than depicted by Galbraith and others. Charles P. Kindleberger agreed, noting that the peak price of the Dow Jones industrial average in 1929 was "not out of line, after allowance for the change in the value of money, with the same in-

[28] Herbert Hoover, *The Memoirs of Herbert Hoover—The Great Depression, 1929–1941* (New York, 1941), 5–28.

[29] Robert Sobel, *The Great Bull Market: Wall Street in the 1920s* (New York, 1968). See also his *Panic on Wall Street: A History of America's Financial Disasters* (New York, 1968), 350–91, and *The Big Board* (New York, 1965), 262–92. Sobel's works usually contain a minimal scholarly apparatus of notes and bibliography.

[30] Galbraith, *Great Crash*, 2; Sobel, *Panic on Wall Street*, 351. Sobel did not name any of the economists he had in mind.

dex in the 1,1001,400 range in 1983–84 and not much ahead of 750 in 1970."[31]

The crash went largely unexplored by popular writers, until its fiftieth anniversary in 1979 prompted the appearance of Tom Schachtman's *The Day America Crashed* and *The Day the Bubble Burst* by Gordon Thomas and Max Morgan-Witts.[32] Both provided social histories of the event, with the latter being far more ambitious and informative. Although the two works provided much interesting detail, neither attempted to analyze or explain the key issues underlying events. In 1989 historian William Klingaman published *1929: The Year of the Great Crash*, which followed his familiar formula of examining the social history of an era through the lens of its pivotal year. Together these works did much to flesh out the social context of the crash but offered little in the way of insight into, or new approaches to, the basic questions.[33]

The appearance in 1985 of Barrie A. Wigmore's *The Crash and Its Aftermath* marked a departure from past studies. Unlike previous studies, Wigmore merely outlined the story of the crash and compiled a wealth of new data to analyze its financial components in far more detail than any previous work. Observing that "[f]or those who anticipate or fear another financial breakdown, there is no other period from which to learn," he compiled a database of 142 companies comprising 77 percent of the market value of all stocks on the New York Stock Exchange. For each year from 1929 to 1933 he analyzed the performance of stocks by industrial sector and the bond market as well. He also included a chapter summarizing the relevant political and economic influences on securities markets. The result was a comprehensive portrait not only of the crash and its aftermath but of their financial scaf-

[31] Sobel, *Great Bull Market*, 9–12; Gerald Sirkin, "The Stock Market of 1929 Revisited: A Note," *Business History Review* (Summer 1975), 223–31; Charles P. Kindleberger, *The World in Depression, 1929–1939* (Berkeley, Calif., 1986), 96. This is a revised and enlarged version of Kindleberger's 1973 book.

[32] Tom Schachtman, *The Day America Crashed* (New York, 1979); Gordon Thomas and Max Morgan-Witts, *The Day the Bubble Burst* (New York, 1979). Schachtman's work has some skimpy documentation and a brief note on the sources. Thomas and Morgan-Witts have fuller source listings but utilize what may be the most frustrating system of documentation ever devised: a general list of sources used for each chapter that makes it all but impossible to trace a given quotation or event to its proper source. The crash also appeared in novels and plays—William Inge's "Splendor in the Grass" being one example—but a compilation of these examples would take the paper too far afield.

[33] William Klingaman, *1929: The Year of the Great Crash* (New York, 1989). Schachtman was a filmmaker, Thomas and Morgan-Witts journalists who specialized in books about disasters. Klingaman had earlier published books dealing with 1919 and 1941. His work provides fuller notes and a more detailed bibliography than the earlier works but is clearly intended for a popular audience.

folding as well. No other scholar has dug so deeply into the data or provided so full a picture of the actual performance of financial markets during these years.[34]

Wigmore burrowed into the technical issues surrounding the crash and seldom rose above them. His lean narrative offered no summary of possible causes beyond an analysis with the revealing title, "Technical Factors Behind the Crash." The data revealed to him that "[s]mall investors and sophisticated financial professionals were both caught up in the speculative mania," and that "it was evident to sober people whose minds had not been formed by the desire for quick profits that stock prices were too high." While emphasizing the market's own excesses, Wigmore conceded that the crash did not take place in a void. He listed as contributing factors tightened credit by the Federal Reserve and rising interest rates, the closing of many small country banks, declines in such key economic sectors as construction, automobiles, and farm commodities, as well the international influences wrought by postwar restructuring difficulties. "These problems had been around for years, however," he concluded, "and could account for neither the heights nor the depths that stock prices reached."[35]

In 1991 a slender volume by Harold Bierman Jr. examined the "great myths" of the crash and the lessons to be learned from them. Bierman sought to refute seven myths about the crash, among them the notion that stocks were "obviously overpriced." Analyzing several types of data, he found prices and price/earnings ratios to be reasonable. A comparison of 1929 with the 1987 crash confirmed for Bierman that no one could say why stock prices dropped drastically in either case. "The fact that we cannot predict stock price turns with any reliability," he noted, "is an extremely important lesson." So too was an awareness that "[t]he balance between stock market optimism and pessimism is very delicate." Bierman returned to the subject in 1998 with a second volume that added little to the first in depth of study or clarity of argument.[36]

[34] Barrie A. Wigmore, *The Crash and Its Aftermath: A History of Securities Markets in the United States, 1929–1933* (Westport, Conn., 1985), xv–xvi. Wigmore noted that most books had "succumbed to the drama of the event and have concentrated on hyperbole, extreme market changes, and personalities."

[35] Ibid., 26–31, 529–30. The low return on equity by most of the highest-priced stocks, Wigmore argued, reflected the "incongruity between stock prices and business reality."

[36] Harold Bierman Jr., *The Great Myths of 1929 and the Lessons to be Learned* (Westport, Conn., 1991), 5–68, 174–5, 186, and *The Causes of the 1929 Stock Market Crash: A Speculative Orgy or a New Era?* (Westport, Conn., 1998), passim. Both books feature a rather bizarre approach and organization, using snippets of information that contain some serious errors of contextual omission as well as a failure to engage previous work on the subject except in a highly selective manner.

Aside from Bierman's work, no full-length study of the crash has appeared since Wigmore's, although the subject has been addressed in several articles as well as in chapters of broader works. Eugene N. White, in a volume pointedly subtitled "The Lessons from History," described the crash as "one of the premier examples of an asset bubble." He noted that the "dominant explanation of the boom" given by Galbraith and most later writers focused on the inevitability of the collapse rather than its causes, and provided little insight into "how much fundamentals contributed to the bull market and the true extent of the 'speculative mania.'" White argued that stock price movements were "driven by a speculative bubble where fundamentals played, at most, an initiating role. Rather than let the boom run out of steam, the Federal Reserve attempted to slow its advance. However, tighter monetary policy did not directly halt rising prices; instead it helped to push the economy into a recession."[37]

White agreed with those writers who portrayed the 1920s as "a remarkable period of prosperity and growth." During 1922–29, the gross national product grew at an annual rate of 4.7 percent and unemployment averaged 3.7 percent; in 1929 itself, growth hit 6.8 percent and unemployment fell to 3.2 percent. At the same time, the "structure of American industry and commerce experienced a profound transformation." Until mid-decade, White stressed, "the bullish stock market only reflected the general economic prosperity brought about by these changes." Reviewing the arguments of Fisher, Sirkin, and Charles Amos Dice, White found one important change that coincided with the ramping up of the bull market in March 1928: "From 1922 to 1927 dividends and prices moved together. In early 1928, prices rose and then soared above dividends."[38]

This shift in fundamentals might have initiated the boom, but what sustained it? White rejected the traditional blame assigned to easy credit, arguing that "brokers' loans did not contribute to the stock-market boom." He emphasized the "independent character of the stock-

[37] Eugene N. White, "When the Ticker Ran Late: The Stock Market Boom and Crash of 1929," in Eugene N. White, ed., *Crashes and Panics: The Lessons from History* (Homewood, Ill., 1990), 143–5. On the debate over whether or not there was a bubble, see also J. Bradford DeLong and Andrei Schleifer, "The Stock Market Bubble of 1929: Evidence from Closed-end Mutual Funds," *Journal of Economic History* (Sept. 1991), 675–700; Peter Rappoport and Eugene N. White, "Was There a Bubble in the 1929 Stock Market?" *Journal of Economic History* (Sept. 1993), 549–74; and Eugene N. White, "The Stock Market Boom and Crash of 1929 Revisited," *Journal of Economic Perspectives* (Spring 1990), 67–83.

[38] White, "When the Ticker Ran Late," 146–58. Dice had in August 1929 published a book insisting that the "new levels of prices in the stock market were the product of economic fundamentals." Charles Amos Dice, *New Levels in the Stock Market* (New York, 1929).

market bubble, whose demand for funds and new issues forced major changes in other financial markets." Yet, White admitted, "the econometric identification of a bubble is elusive. . . . While it is currently impossible to identify or measure a bubble with any statistical precision, the absence of any alternative explanation for the events of 1928–29 and certain qualitative evidence clearly point to the emergence of a bubble."[39]

What, then, caused the crash? White rejected contemporary explanations as inadequate. Noting that fundamentals seemed strong, he advanced a more subtle reason. When the market began to decline in September, no good news materialized to revitalize it as had occurred during past dips. Sprinklings of bad news dampened enthusiasm, as did tight credit, rising interest rates, and doubts that production would continue to grow. "No indicator of the economy showed any sharp departure," White noted, "but the timing of some signs of a slowing economy with declining stock prices proved enough to revise some stockholders' expectations." This accretion of unfavorable reports led to a "downward drift" of the market that snowballed into a crash and punctured the speculative bubble. But White conceded that "even sixty years later, it is difficult, if not impossible, to identify any measure or variable that captures the degree of speculation in the market."[40]

Robert Shiller too pointed to the presence of a speculative bubble. Borrowing a phrase from Alan Greenspan, he sought to explain the current bull market in terms of its "irrational exuberance." But his look at the crash of 1929 scarcely scratched the surface. In surveying the impact of media on investors, Shiller offered an astoundingly naïve sketch of newspaper accounts for Monday, October 29, 1929. After a cursory glance at the news of three other days, he concluded: "There is no way that the events of the stock-market crash of 1929 can be considered a response to any real news stories." Nowhere did he examine the news of these days in the context of events, stories, rumors, and other information accrued during the previous weeks and months. Indeed, he did not indicate that such a context even existed, let alone analyze or evaluate its influence.[41]

[39] White, "When the Ticker Ran Late," 158–70.

[40] Ibid., 170–80. The contemporary explanations include the issuing of large quantities of new stock, the Boston Edison decision, apprehension over the pending Smoot-Hawley tariff bill, the Hatry failure, and the credit situation. In a later article, White suggested that the tariff may have been something of a factor. See Rappoport and White, "Was There a Bubble," 570.

[41] Robert J. Shiller, *Irrational Exuberance* (Princeton, N.J., 2000), xii, 3, 7, 82–8. Greenspan used the memorable phrase in a speech given on December 5, 1996.

Whatever the value of Shiller's book for understanding the modern market, it provided no insights into the experience of 1929—thanks in large part to its utter lack of solid or accurate historical scaffolding.[42] Its virtue lay in a renewed emphasis on the importance of both psychological and structural factors as influences on the market and on the culture itself.

If there is a common thread running through these works, it is an emphasis of varying degrees on the irrational element in investors' behavior and the growing sense of illusion or euphoria that infused their view of the market. Virtually every author makes this point either as a central or an ancillary theme. But this concern over the role of illusion was hardly new. Several early writers besides Allen and Fisher recorded its influence and damaging consequences. Virgil Jordan wrote in January 1930, "Probably no nation in modern times has suffered so frequently or so greatly as the United States from recurrent periods of exaggerated optimism and unrealistic interpretation of its economic situation."[43]

Jordan viewed the promise of the New Era that "a new and miraculous means of permanent and unlimited prosperity had been discovered, that all . . . problems of progress had been solved, that all old laws of economic development had been superseded" as a cruel delusion, yet a powerful if not irresistible one. "The New Era was a state of mind," he noted, "a mode of thought, an image, a symbol of great potency, all the stronger because it was unreal."[44] The disillusionment and uncertainty that inevitably followed the crash thus amounted to a repudiation not only of the bull market but of this mind-set grounded in illusion. A vacuum of belief along with uncertainty over future prospects arose, which strongly inflected attitudes during the crucial months following the crash.

[42] Two examples (ibid., 222–4) suffice to indicate the depth and quality of historical material in the book. At one point Shiller, describes the famous bankers' pool during the crisis as being set up by J. P. Morgan and John D. Rockefeller. Jack Morgan was abroad at the time, and Rockefeller had nothing to do with the pool, which was organized by Thomas Lamont of the House of Morgan. See Ron Chernow, *The House of Morgan* (New York, 1990), 315–16. Shiller also states that the Fed raised the rediscount rate from 5 percent to 6 percent on February 14, 1929. In fact, the rate was not raised. The New York Federal Reserve Bank voted to raise the rate but was overruled by the Federal Reserve Board in Washington, which also vetoed nine more attempts. The increase to 6 percent was not approved until August 9, 1929. See Friedman and Schwartz, *Monetary History*, 258–64.

[43] Virgil Jordan, "The Era of Mad Illusions," *North American Review*, 229 (Jan. 1930), 55. Shiller, in a 1984 article, pointed to the influence of extraneous fads and fashions on stock prices and to social psychology as a useful tool in explaining price movements. See Robert J. Shiller, "Stock Prices and Social Dynamics," *Brookings Papers on Economic Activity*, 2 (1984), 457–510.

[44] Jordan, "The Era of Mad Illusions," 55.

Links between the Crash and the Depression

Inquiries into the relation between the crash and the depression have produced no more agreement than those into the causes of the crash itself. Historians and economists alike have shown more interest in the related question of why the depression was so prolonged than in its connection to the crash that preceded it. This question, a large and important one, takes our discussion too far afield to be considered except in passing.[45] The inquiry here is confined to possible links between the crash and the depression.

Months before clear signals of a possible depression had appeared, Irving Fisher issued two remarkably prescient warnings. Disturbed by the imbalance in gold holdings and a general shortage of gold to support the currencies backed by it, Fisher emphatically stated: "There is now a threat of deflation which cannot be overlooked!" He issued this alert publicly as early as January 1930, concerned that the world decline in commodity prices might signal the "beginning of a great secular downward movement in prices spelling depression similar to the movements following the Napoleonic wars and the Civil War." His argument got little attention at a time when inflation remained the larger fear, and one that persisted through the darkest years of the depression. Fisher also stressed another element that became a common ingredient in explanations of the crash and the depression that followed. "The chief danger," he declared, ". . . was the danger of fear, panicky fear, which might be communicated from the stock market to business." Three years before Franklin D. Roosevelt uttered his famous phrase, Fisher insisted that the words of any courageous man must be, "My only fear is the fear of fear."[46]

Alexander Noyes too recognized that the crash triggered a remarkable reversal of mood. "Even in professional Wall Street," he noted, "which had in 1929 adopted the idea of a New Era in which nothing could stop the speculative boom, an equally emotional but exactly op-

[45] "In American economic history," noted Michael A. Bernstein, "there is no greater puzzle than the persistent failure of investment activity during the depression of the 1930s to generate a full recovery." *The Great Depression: Delayed Recovery and Economic Change in America, 1929–1939* (New York, 1987), 1. The first twenty pages of this work provide a useful summary of three alternative approaches to solving this mystery.

[46] Fisher, *Stock Market Crash—And After*, 63, 192, 269; *New York Times*, April 23, 1945; Fisher, *My Father Irving Fisher*, 264; *American National Biography*, 8:14–15; *Time*, Jan. 20, 1930, 38; Barry Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression, 1919–1939* (New York, 1992), 24. "There is no little irony," wrote Eichengreen, "in the fact that inflation was the dominant fear in the depths of the Great Depression, when deflation was the real and present danger."

posite view of things prevailed . . . that we had entered a different New Era in which nothing could stop the fall of prices or the trade depression." After the crash, Noyes undertook the very different task of warning "this same public now against the prevalent hallucination of prices falling without limit and financial adversity that was sure to go on forever." To his experienced eyes, the younger element on Wall Street, which had never known a market collapse, seemed unable to comprehend what had occurred.[47]

Although Allen also wrote before the full force of depression had struck, he shared this sense that the crash had triggered another seismic shift in American mood as well as society. His view of the crash and its effect can be seen in these closing words from his penultimate chapter:

> Prosperity is more than an economic condition; it is a state of mind. The Big Bull Market had been more than the climax of a business cycle; it had been the climax of a cycle in American mass thinking and mass emotion. . . . With the Big Bull Market gone and prosperity now going, Americans were soon to find themselves living in an altered world which called for new adjustments, new ideas, new habits of thought, and a new order of values.[48]

But Allen did more than paint a prescient picture of the sequel to the crash. Writers who treat his views condescendingly overlook the fact that Allen also tried to explain the descent into depression by listing the "economic diseases from which business was suffering." They included overproduction of capital and goods; artificial commodity prices; collapse of the price of silver "with a resulting paralysis to the purchasing power of the Orient"; derangement of international finance caused by the flow of gold in huge quantities to the United States and France; unrest in foreign countries; the "self-generating effect of the depression itself"; and "the profound psychological reaction from the exuberance of 1929." Allen praised Hoover for his attempt to restore "economic health by applying the formula of Doctor Coué." The effort was doomed, however, "for the economic disease was . . . organic and deep-seated."[49]

Galbraith took a structural view, arguing that "[n]o inevitable rhythm required the collapse and stagnation of 1930–40." The econ-

[47] Noyes, *Market Place*, 337, 351. Noyes recognized that no one had expected the sequel: "The crushing severity of the business reaction which ensued . . . was not predicted, even in October 1929; it created a sense of bewilderment, almost credulity."

[48] Allen, *Only Yesterday*, 281.

[49] Ibid., 283–5.

omy was not seriously strained; nor had production outrun consumption, as was often suggested. Although the economy that summer of 1929 entered "the familiar inventory recession," clear evidence of a downturn did not emerge until October. Why, then, did it continue its dreary decline for an entire decade? Galbraith listed five weaknesses that did much to make the economy "fundamentally unsound": maldistribution of income; bad corporate structure; bad banking structure; the dubious state of the foreign balance; and the poor state of economic intelligence. "Had the economy been fundamentally sound in 1929," he concluded, "the effect of the great stock-market crash might have been small. . . . But business in 1929 was not sound; on the contrary it was exceedingly fragile."[50]

Government policy made a bad situation worse. Galbraith heaped scorn on the Federal Reserve Board, charging that after the crisis of March 1928 it "was less interested in checking speculation than in detaching itself from responsibility for the speculation that was going on." He also assailed Hoover's failure to use governmental power more vigorously, yet admitted, "Nor was it very certain, at the time, what could be done." He underscored the policy myths that bound the thinking of Hoover and others, notably the "strait jacket" of the balanced budget and "the bogey of 'going off' the gold standard and, most surprisingly, of risking inflation." Despite amassing enormous supplies of gold, "the country was experiencing the most violent deflation in the nation's history. Yet every sober adviser saw dangers here, including the danger of runaway price increases." In Galbraith's view, Hoover's rejection of both fiscal and monetary action "amounted precisely to a rejection of all affirmative government economic policy."[51]

Sobel too regarded the crash as less important than the long slide of 1930–33, but so much more dramatic and attractive as a symbol for the subsequent downward plunge that it was "no longer studied as an historical event, but more as a symbol of greater forces and new beginnings." At the time, however, few people believed that such a crash was inevitable or that it would lead to a depression. Nor were its effects as disastrous as later portrayed. "No causal relationship," he said flatly, "between the events of late October 1929 and the Great Depression has ever been shown through the use of empirical evidence." Why did conditions not improve after the crash? Sobel blamed the "political paralysis of November 1929 to April 1930. . . . Had those who possessed the

[50] Galbraith, *Great Crash*, 177–92. These pages contain explanation of the five factors.

[51] Ibid., 40, 145, 188–90. Wicker, *Federal Reserve Monetary Policy*, 136, called Galbraith's account "seriously misleading."

power acted to shore up the economy, and those who controlled the Exchange and dominated America finance tried to correct abuses, the situation in mid-1930 might have been different." But both groups refused to act. Sobel saw the crash as bringing down not the economy but rather the grand illusion that sustained the market.[52]

The fullness and complexity of the data assembled by Wigmore led him to a predictable conclusion. "Herbert Hoover would have liked this book," he wrote. "He believed that the Depression was the result of a series of shocks—collapse of speculation in the stock market, collapse of international trade and finance, collapse of the banking system. I agree, except that the shocks were even more multifarious." The succession of negative influences continued relentlessly into the summer of 1932, when both the stock and bond markets touched bottom, and culminated in the banking crisis of 1933 that fostered what Wigmore called "an air of unreality." He added that it was "difficult to blame the Federal Reserve for its conduct of financial activities or for the depth of the Depression."[53]

As Galbraith noted, the field has belonged largely to economists who have sought literally to take the measure of the crash and its aftermath in their search for underlying causes of the depression. Their efforts met with no more success than those of historians. As Charles P. Kindleberger admitted, "It seems odd, fifty years after the event, that economists still do not understand, or at least cannot agree on, the world depression of the 1930s." One school held it to be a financial crisis rooted in monetary policy; another viewed it as one more episode in the recurring pattern of fortuitous business cycles. A third approach found the sources of collapse in disparate economic factors, and a fourth in the derangement of international financial arrangements. A number of single causes also came in for a large share of the blame; but, as Kindleberger noted, "For the most part, the debate has been conducted in terms of monetarism versus Keynesianism, money versus spending: two unicauses ranged against one another."[54]

Milton Friedman articulated and championed the monetary argument in several venues, most notably in his and Anna Schwartz's classic

[52] Sobel, *Great Bull Market*, 9–10, 147, 150–2; Sobel, *Panic on Wall Street*, 390–1. As an example of how the public memory sometimes made wrong connections, Sobel issued this reminder to readers: "Contrary to popular belief today, the banks remained solvent during the crash; the wave of liquidations would not take place for another year." In another work, he called the first three months of 1930 "a period of lost opportunities."

[53] Wigmore, *Crash and Its Aftermath*, xvi, 529–51. In these latter pages, Wigmore itemizes the key factors that deepened the depression.

[54] Kindleberger, *World in Depression*, 1–5. The same debate dominates discussion in Karl Brunner, ed., *The Great Depression Revisited* (The Hague, 1981).

study of American monetary history. Friedman regarded the contraction of 1929–33 as perhaps the most severe in American history and "a tragic testimonial to the importance of monetary forces." In his view, "the downward pressure on income produced by the effects of the stock market crash . . . was strongly reinforced by the behavior of the stock of money." Kindleberger described Friedman's explanation as "national, monetary, and related to a policy decision. It is unicausal. In my judgment it is wrong."[55]

Peter Temin agreed. In 1976 he countered the "monetary hypothesis" with a "spending hypothesis," and described some of their differences this way: "The Depression was precipitated by a fall in autonomous spending according to the spending hypothesis and by banking panics according to the money hypothesis." In the former, the stock of money fell because the demand for money declined; in the latter, the stock of money fell because the supply of money fell. Most economists who rejected the monetary hypothesis embraced some variant of what he called the spending hypothesis and developed econometric models to refine it. However, Temin concluded that "neither the approach adopted by Friedman and Schwartz nor the econometric approach is a good way to analyze this choice."[56]

Instead Temin looked at the unquantifiable issue of mood. The crash, he thought, "may have altered consumer expectations in a way that caused them to decrease consumption expenditures. In 1929, most people expected good times to continue. By 1933, most people expected bad times to continue. Sometime in the interim, people's vision of what the next few years would bring changed. The question, therefore, is not whether expectations changed . . . but when. The importance of this question cannot be overestimated." It was also one that could not be captured or measured by any of the economist's usual tools.[57]

For Allen, the crash was "the dividing point between unbounded optimism and equally uncontainable pessimism," but Temin argued that awareness of this transformation came slowly. Contemporary evidence led him to conclude that sometime in the fall of 1930 "business-

[55] Kindleberger, *World in Depression*, 4; Friedman and Schwartz, *Monetary History*, 300, 307. Kindleberger repeated this view in a later work. See Charles P. Kindleberger, *Manias, Panics, and Crashes: A History of Financial Crises* (New York, 2000), 10, 24. This is the fourth edition of a work originally published in 1978.

[56] Peter Temin, *Did Monetary Forces Cause the Great Depression?* (New York, 1976), 7–13. Of Friedman and Schwartz's argument, Temin says, "Their narrative is long and complex, but it offers far less support for these assertions than appears at first. In fact, it assumes the conclusion and . . . does not test it or prove it at all." Ibid., 15–16. For early examples of the spending hypothesis, see ibid., 31–53.

men became convinced that prosperity was no longer just around the corner. . . . [B]usinessmen's and probably also consumers' expectations built up during the 1920s about the normal state of business activity were not shattered immediately by the stock-market crash; they only dissolved about a year after the crash."[58]

From Temin's analysis emerged a narrative that began with a recession in 1929 caused by "some combination of factors which cannot be disentangled," but which involved tight financial markets and various imbalances in other markets, most notably an "apparent oversupply of housing." The result was a fall in income that would not itself have sparked a major depression. But there followed a series of other deflationary blows beginning with the crash. Although Temin did not regard it as even the largest deflationary influence, the crash did reduce "wealth in the hands of consumers" and therefore consumption. It also curbed financial activity by individuals and firms.[59]

The key transformation came in 1930, when the deflation that had shown signs of severity in 1929 grew worse instead of better. Temin concluded that, contrary to conventional wisdom, there was "no evidence that the banking panic of 1930 had a deflationary effect on the economy." Instead he found the most important problem to be a nosedive in consumption expenditures during 1930. The fall in investment was not nearly as dramatic, and neither it nor other obvious factors like the crash, the fall in income, and a poor harvest sufficed to explain the collapse in consumption.[60]

The European currency crisis of 1931 added another strain to the deepening depression. "A world-wide perspective, as opposed to a national one," stressed Temin, "is needed to analyze the events after 1931." By that year the story had grown "so complex and the interactions so numerous that it is no longer possible to envisage separate movements in different parts of the world." As for the role of macroeconomic policy at the time, "it is clear from the fact that the Depression occurred that effective countermeasures were not used." Temin concluded that the interwar period could not be satisfactorily analyzed with quantitative tools in part because it lacked "a plethora of data for the testing of macroeconomic hypotheses." Theory had to presume

[57] Ibid., 74.

[58] Ibid., 75–9.

[59] Ibid., 170–2. Depressed agricultural prices added another deflating element, though Temin doubted that they played a major role.

[60] Ibid., 137, 172–3. According to Temin, the data suggested that demand for money fell more rapidly than the supply during 1930 and most of 1931.

static conditions over time, but the relatively short interwar period was extraordinarily dynamic and unique, marked by world wars at each end and a major depression in the middle.[61]

Kindleberger, surveying the onset of depression from a global perspective, viewed the crash as an episode in the developing deflationary spiral that was to strangle the world economy. "In the light of the sudden collapse of business, commodity prices, and imports at the end of 1929," he concluded, "it is difficult to maintain that the stock market was a superficial phenomenon, a signal, or a triggering, rather than part of the deflationary mechanism." The significance of the crash to Kindleberger lay in "starting a process that took on a dynamic of its own." This reaction "moved from the decline in stock markets to production cuts and inventory runoffs in one sequence, and from stock prices to commodity prices to the reduced value of imports in another." The monetarist–Keynesian debate, he added, said little about the instability of credit, the fragility of the banking system, or impacts on production and prices when the credit system became paralyzed through loans rendered bad by falling prices—factors, that in his view, did much to explain what occurred in the early stages of the depression.[62]

Later scholars also rejected the monetary argument; some, notably Thomas Mayer, joined Kindleberger in challenging Temin's hypothesis as well. Wigmore concluded, "Monetary policy could do nothing to affect the disruptive shocks to the economic system of the Crash," adding that "when we seek to explain how monetary policy might have cured the Depression, no convincing paths occur." Barry Eichengreen found "no evidence that monetary policy played a significant role in the great bull market of the 1920s. It is more plausible to argue that the Wall Street boom influenced monetary policy rather than the other way around."[63]

On the broader questions of what brought on and prolonged the depression, Eichengreen was emphatic. In a detailed 1992 study, he argued that the root source was blind adherence to the gold standard, which, he said flatly, "was the principal threat to financial stability and economic prosperity between the wars." Like Kindleberger he empha-

[61] Ibid., 173–8.

[62] Kindleberger, *World in Depression*, 114, 116; Kindleberger, *Manias, Panics, and Crashes*, 67. In the latter citation, Kindleberger added that "this is an old view, held by many economists prior to 1940, that has unaccountably slipped into disrepute during the Keynesian revolution and the monetarist counterrevolution."

[63] Wigmore, *Crash and Its Aftermath*, 551; Eichengreen, *Golden Fetters*, 14; Thomas Mayer, "Consumption in the Great Depression," *Journal of Political Economy*, 86 (1978), 139–45, and "Money and the Great Depression: A Critique of Professor Temin's Thesis," *Explorations in Entrepreneurial History*, 15 (1978), 127–45.

sized that it was "not possible to understand the causes of the American slump so long as they continue to be considered in isolation from events in other parts of the world." The economic decline that struck America in the fall of 1929 had already been evident abroad for nearly a year. However, the crash itself and its sequel remained a mystery to Eichengreen. "The initial downturn in the United States enters this tale as something of a deus ex machina," he admitted, ". . . to explain the severity and persistence of difficulties in other parts of the world."[64]

In 1990, Christina D. Romer, pondering the "dichotomy that economists often impose between the Great Crash and the Great Depression," professed to find a link between the crash and the "acceleration of the decline in real output in late 1929 and throughout much of 1930. That link is that the stock-market crash caused consumers to become temporarily uncertain about future income." This "uncertainty hypothesis" purported to unravel the major mystery of 1930. With the market plummet of 1987 fresh in mind, Romer noted that the variability of stock prices in 1929 was much higher. "The continued gyrations of stock prices in 1930 made consumers very nervous," she argued, while the quick recovery of the stock market after the 1987 crash allowed consumers to view it as a mere aberration. As a result, "the 1987 crash did not depress spending to the extent that the 1929 crash did."[65]

Romer's conclusion that "uncertainty is a potent determinant of consumer behavior" was hardly revelatory and did little to explain the sources for that uncertainty or its role in bringing on a prolonged depression. If anything, her exercise in devising an elaborate argument to demonstrate the obvious reflected the frustration of economists in seeking to explain what could not be explained through the use of econometric tools or models. Nor have historians fared much better in clarifying the reasons behind what David Kennedy called the economy's "mystifying downward slide." As Kennedy observed, the most recent experience of Americans with an economic downturn in 1921 allowed them to "justly feel in 1930 that they were not—yet—passing through as severe a crisis as the one they had endured less than a decade earlier."[66]

[64] Eichengreen, *Golden Fetters*, 4, 14–15. He added, "To some extent this is inevitable, for there is no consensus about the causes of the downturn in the United States."

[65] Christina D. Romer, "The Great Crash and the Onset of the Great Depression," *Quarterly Journal of Economics*, 105 (August 1990), 598–623. Reviewing a range of quantitative and qualitative evidence, Romer concluded that "stock price movements prolonged uncertainty in 1929 in a way that they did not in 1987. Whether this was the crucial difference between 1930 and 1988 is hard to say."

[66] Kennedy, *Freedom from Fear*, 59. Temin, *Did Monetary Forces Cause the Great Depression?*, 74, made this same point.

As this brief survey suggests, scholars have produced no more consensus on the question of links between the crash and the onset of depression than on the causes of the crash itself. Although the divisions on this issue are sharper and more polarized, the closest thing to a leitmotif in the literature stressed such amorphous factors as mood, attitude, and psychology.[67] One version revolves around what Michael Bernstein called the "business confidence" school, which held that the stock market's slide "created intensely pessimistic expectations in the business community . . . stifling investment and thereby a full recovery." Another version, emphasized by Temin and Romer among others, stressed the sudden decline in consumer confidence and spending. A third group, which included Fisher, Patterson, and Lionel Robbins, viewed the depression as "the inevitable consequence of the chaotic and unstable financial structure of the twenties."[68] Others, notably Galbraith, saw the problem rooted in the weaknesses of the economy itself or, like Sobel, blamed the segue into depression on failures of policy and institutional reform.

Can It Happen Again?

Historians are as reluctant as economists are eager to apply past lessons to the present. One obvious reason for this difference, as Kindleberger put it, is that "[h]istory is particular; economics is general."[69] The crash of 1929 has frustrated the efforts of both camps in different ways. Rather than provide insights about the potential for future market crashes, it has served more as a sharp reminder to economists and historians alike of the limitations of their crafts. The most obvious conclusion that emerges from this review of the literature is that scholars are not likely to agree soon on what caused the crash or what role, if any, it played in bringing on the depression. Why has consensus been so difficult to reach?

Economists have been thwarted in part because, as Temin and others have pointed out, relevant data are difficult, if not impossible, to obtain, and the period itself is unique, making meaningful comparisons with other eras untenable. What other period can be compared with this thirty-year span that embraces the two largest and bloodiest wars in human history, an unprecedented decade of prosperity, and the

[67] Ibid., 623.
[68] Bernstein, *Great Depression*, 4–5.
[69] Kindleberger, *Manias, Panics, and Crashes*, 13.

longest and deepest depression endured by Americans? Econometric models, however ingenious, are not likely to provide more insight. A static model cannot explain a dynamic process containing more variables than can be calculated or computed. Nor can it get at the most crucial variable of all: the human element with its complex of motives behind the behavior. What model could incorporate such factors as mood, attitude, and illusion, which most scholars have put at the center of their analysis?

To cite but one example of the difficulties involved, controversy rages over the precise nature of people's mood after the crash and its effect on subsequent events. Many sources, as well as my own close examination of the period from November 1929 to June 1930, confirm the presence of persistent assertions from virtually all quarters that business conditions would soon improve, and the market recovered sufficiently to encourage belief that the worst had passed.[70] Not until spring, when the economic indicators failed to show the expected improvement and the market collapsed again, did this chorus of optimism begin to break up. But did the chorus reflect real optimism? Did it reveal true feelings or was it a façade that amounted to whistling in the dark? How is one to know?

Several explanations have been offered for the waves of selling prior to the crash. All are plausible, even likely, yet we have no way of knowing the extent to which any one of them holds true for any given investor. In the case of the crash, this problem is compounded by the fact that we don't really know how widespread participation in the market actually was, nor do we know the number of investors, the amount of money they had invested, or which sectors they had invested in. Nor can we divine the effect of the crash on the much larger number of people who had never been in the market.

The problem for historians and economists alike is that decisions large and small are made in the context of influences that cannot be reliably pinpointed for individuals or gathered en masse. In this sense, the most satisfactory, if frustrating, explanation in the literature remains that of Temin, who more than any other student of these events stresses what we don't know and can't solve about the mystery. Seventy years of scholarship have produced numerous explanations and insights but have not advanced our understanding much beyond the contemporary lament of W. W. Kiplinger: "The amazing lesson from this depres-

[70] My own findings can be found in *Rainbow's End: The Crash of 1929*, forthcoming from Oxford University Press.

sion is that no one knows much about the real causes and effects of ANYTHING."[71]

Ours is an age that delights in measuring and quantifying—and thereby abstracting—everything. The crash and its aftermath have been poked and prodded, quantified and theorized to death with meager advance of insight. This failure suggests that the true explanation may lie in areas that cannot be measured or quantified or clearly grasped because of the complexity of their interaction. This is often the case in the messy arena of human affairs, but the modern age, with its growing arsenal of sophisticated tools and techniques, is ever more reluctant to admit what it does not know or understand—and even more, what it cannot expect to know or understand. The crash and the depression, like certain other intractable historical problems, have been conspicuous in puncturing this hubris of modern scholarship.

Put another way, the story of the crash and the descent into depression makes more sense when it is acknowledged that not all aspects of the tale can be known with certainty. In the search for explanations, issues of mood, illusion, and confidence (both investor and consumer) will surely rank high on any serious list. In these areas, at least, can be found strong threads of connection between past and present experience. Then and now the fragility of mood on Wall Street and in the larger economy is a phenomenon much observed if little understood. Here again, however, to recognize the importance of these factors is not to understand the precise nature of their influence or the effects of their presence.

Many observers recognized their critical role at the time. Eight months before the crash, in February 1929, one *Wall Street Journal* columnist made a shrewd appraisal of the role of mood in terms that might have been plucked from a recent issue of the paper:

> The market as well as business is more or less a state of mind. The people have been in an optimistic state of mind for several years. . . . That has been the basis for the longest period of prosperity in history and the longest bull market in history. If the people begin to lose confidence prosperity will ebb with it and so will increased earnings . . . production . . . dividends . . . high wages and a healthy market. Sentiment is something dangerous to trifle with.[72]

Remarkably similar statements can be found in numerous sources seeking to explain the recent fall of the bull market. "What's driven this

[71] Quoted in David Burner, *Herbert Hoover: A Public Life* (New York, 1979), 248.
[72] *Wall Street Journal*, February 12, 1929.

economic boom has been confidence in the boom itself," wrote Robert J. Samuelson in December 2000. "People have acted as if it could go on forever, and they have spent accordingly. But we are now seeing the first signs of fraying confidence. . . . If confidence unravels, the mild economic slowdown that's now unfolding could deteriorate quickly into a nasty slump." Three weeks later Allan Sloan noted:

> Until March this was a Tinker Bell market. So many investors clapped their hands and believed in stocks so intensely that lots of sky-high issues kept on flying even though many people, me among them, considered their valuation insane. The downside of stocks' trading on the basis of belief rather than on assets or profits is that when the belief shatters, Tink has a long way to fall.[73]

There is one interpretation that makes sense of the crash and its aftermath, but it may be too simple to satisfy either historians or economists. It amounts to a refined version of the old saw that history is just one damn thing after another. The crash and the depression can be viewed as aberrations, and their relation the product of an unlikely and unpredictable sequence of events—the random coming together of a confluence of unfortunate forces. The accumulating effect of these forces not only created the crisis but prolonged and deepened it, much like the strengthening of a routine storm into a killer hurricane or blizzard when a variety of unfavorable factors, each one unpleasant but not lethal in itself, combine on rare occasions to forge the worst-case scenario. In short, the crash and its aftermath was the perfect storm.

In this interpretation, the crash and the depression are viewed as a rash of really bad luck compounded by an unrelenting parade of other negative factors that collided with each other in the most unlikely of ways. Seen in this light, the answer to the question of whether it could happen again is obvious: of course it could, if the right combination of circumstances came together. The problem, as always, is knowing, in the context of a given time and place, what circumstances and influences would be required to produce the elements that would come together in so improbable a disaster. Although one might offer the consoling premise that no one or two factors by themselves are likely to produce a killer storm, it is also probable that any such confluence of factors will be impossible to identify much before its arrival. We have yet to grasp the mechanics of market storms as well as those of nature.

[73] *Newsweek*, December 18, 2000, 52, and January 8, 2001, 36.