

How They Killed the Economy

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Getting Off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis

by John B. Taylor.
Hoover Institution Press,
92 pp., \$14.95

The Fundamental Principles of Financial Regulation

by Markus Brunnermeier, Andrew
Crockett, Charles Goodhart, Avinash
D. Persaud, and Hyun Shin.
Geneva: International Center for
Monetary and Banking Studies,
76 pp., available at [voxeu.org/reports/
Geneva11.pdf](http://voxeu.org/reports/Geneva11.pdf)

The United States economy is slowly reviving: it grew by 2.2 percent in the third quarter of 2009 and by 5.7 percent in the fourth quarter, a trend that may signal an end to the worst recession we have had since the Great Depression. The country avoided a much more severe economic collapse only because government responses to this breakdown, both in the US and abroad, have been more effective than those of the 1930s were.

Nonetheless, housing is still depressed and nearly 10 percent of the labor force was unemployed in January. We have lost more than eight million jobs, over half of them permanently, since the recession began in December 2007; and long-term unemployment is at record highs. Even if the economy grows 5 percent a year over the next three years, which seems unlikely, the US will probably not return to full employment before 2013.*

That an even worse disaster has been averted, in part by people who studied the lessons of what happened in the past, underscores our need to understand what went wrong this time and what must still be done to restore the economy and avert another collapse. Almost everyone agrees that the crisis developed in part because of failures of regulation—principally of banks, mortgage brokers, and derivatives markets—and much effort is currently being devoted to revamping and shoring up the regulatory system.

Alan Greenspan's Federal Reserve bears responsibility for some of these



supervisory failures; it also kept interest rates "too low too long," thereby exacerbating the dangers to the economy. The failures of the Fed's monetary policy are particularly significant—without them the need for effective regulation would have been much less urgent. This may help explain why the embattled Fed Chairman Ben Bernanke, who was confirmed on January 28 for a second four-year term in the most contested vote ever for a Fed chairman, tried to counter those who blame the Fed in a speech before the American Economic Association a few weeks before the vote. But like many of the Fed's critics, Bernanke focused only on whether the Fed should have started raising interest rates before it actually did in June 2004. He did not address a more critical issue: Did the *slow and predictable pace* at which it raised rates encourage the excessive risk-taking that brought down the financial system and the world economy?

By any measure, the crisis was a consequence of extraordinarily reckless behavior—by banks and other financial institutions, by governments and their financial regulators, and by consumers—behavior that continued even in the face of a widely shared sense that serious trouble was brewing. Charles Bean, deputy governor for monetary policy of the Bank of England, was not the only central banker to admit, in November 2008, that major trends of the world economy had "vexed policymakers for some time. We knew they were

unsustainable and worried that the unwinding might be disorderly.... However, nothing very much was done..." (emphasis added).

Even Chuck Prince, the former CEO of Citigroup, was aware of the risks when in July 2007 he boasted that the bank was not pulling back from its aggressive lending: "When the music stops...things will be complicated. But as long as the music is playing, you've got to get up and dance. *We're still dancing...*" (emphasis added)—a prime example of the kind of illusions that led to disaster. Consumers, too, were carried along on the wave of easy credit and by rising home prices; they borrowed to the hilt, often by refinancing their appreciating homes, and saved almost nothing.

The failure of central bankers and regulators to rein in leverage—the practice of borrowing as much as thirty or more times one's equity capital to increase investment potential—and excessive risk-taking owes much to complacency that had developed over the preceding twenty to twenty-five years. This was a period that many economists call the "great moderation," when economic growth was relatively steady, inflation was low, recessions were short and mild, and serious crises were weathered without severe downturns. Partly this was because the most serious economic crises are centered in the banking and financial system, the basic

source of credit, and none of those that occurred during this period involved the banking system in a major way.

The list of crises that were contained is long and impressive, including the stock market crash of 1987, the junk bond collapse of 1989–1990, the Asian crisis of 1997, the Russian default in 1998, the failure of Long Term Capital Management—a large and hugely leveraged hedge fund—later that year, and the collapse of technology stocks in 2000–2001. Quick and effective responses to these and other dangers by Greenspan's Fed appear to have induced banks and investors to rely unduly on its ability to stave off collapses that threaten the system, and to ignore the serious malfunctioning of the financial markets. These same successes may have led Greenspan himself to believe that he actually was, in the words of the *Financial Times*, the "guardian angel of the financial markets."

The general pattern of those years was similar to earlier extended periods of growth and great optimism. The standards for issuing credit and for supervising those who do so tend to deteriorate markedly during such prolonged periods of prosperity (as the junk bond collapse also showed on a much smaller scale). This is one reason why financial crises typically follow booms. It also is why, as an economic expansion lengthens, regulators of financial institutions should be—but seldom are—especially vigilant; and regulations should be—but were not—adapted to automatically constrain risks as the expansion progresses. (Regulations should also function "countercyclically" in downturns, by encouraging lending and investment as conditions worsen.) Because the US regulatory system was deeply flawed, reflecting pressures from powerful commercial banks, investment banks, and insurance companies, and negligently implemented, it failed to counteract the prevailing optimism and cool the housing and credit markets. Instead it fostered the inflating bubbles.

Along with hubris and complacency, ideology also explains some of the supervisory negligence. In October 2008, appearing before the Government Oversight Committee of the House of Representatives, Greenspan famously confessed to being in a "state of shocked disbelief" that the "self-interest" of banks and other market participants had not prevented the "once-in-a-century credit tsunami" that was devastating the world economy. Under questioning the former Fed chairman went further, admitting that the events of 2007–2008 had revealed a "flaw" in his own *laissez-faire* worldview. He reminded the committee that he had been concerned as early as 2005 that "the protracted period of underpricing of risk... would have dire consequences." Yet he had done little to contain that threat, and the consequences, he said, turned out to be "much broader than anything I could have imagined."

Although he has confessed to some regulatory failure, Greenspan has fiercely resisted criticisms of his

*Two pairs of economists have compared the current crisis to the Great Depression and to eighteen postwar banking crises, including five in developed economies. Although the world economy began recovering much sooner than in the Great Depression, compared to postwar financial crises the current US version is considered "severe by any metric." See Barry Eichengreen and Kevin H. O'Rourke, "A Tale of Two Depressions," September 1, 2009, available at voxeu.org/index.php?q=node/3421; see also Carmen M. Reinhart and Kenneth S. Rogoff, "Is the 2007 US Sub-prime Financial Crisis So Different? An International Historical Comparison," *American Economic Review*, Vol. 98, No. 2 (May 2008), and "The Aftermath of Financial Crises," *American Economic Review*, Vol. 99, No. 2 (May 2009). For further footnotes see the Web version of this article at www.nybooks.com.

monetary policy itself—especially suggestions that his policy of keeping interest rates low for so long encouraged the housing bubble and the explosion of borrowing throughout the economy. It must sting more deeply that the most forceful attacks on his monetary policy have been leveled by Stanford Professor John Taylor, an esteemed monetary economist and Greenspan's "good friend and former colleague." Taylor served in the Ford, Bush I, and Bush II administrations, including as undersecretary of the Treasury for international affairs between 2001 and 2005. His first public criticism was made two years after leaving that position in a paper presented to the annual August gathering of central bankers and monetary economists in Jackson Hole, Wyoming, that is sponsored by the Federal Reserve Bank of Kansas City. The paper is the heart of Taylor's new book, *Getting Off Track*.

Taylor argues that if the Fed had started raising interest rates in 2002, shortly after the end of the recession that followed the bursting of the technology stock bubble, the housing market would not have grown as wildly as it did. He bases his argument on his own "Taylor rule," a guide to monetary policy he developed in the early 1990s, that quantifies how forcefully the Fed should adjust interest rates in response to changes in inflation and GDP. Taylor rules are widely used by economists and policymakers and there are many different versions reflecting variations in the way they are applied, particularly in how inflation is measured. Taylor measures inflation by the average change in the Consumer Price Index (CPI) over the preceding four quarters, a choice that has a big impact on his conclusions.

By contrast, the Fed and many economists prefer using "core" inflation measures because they exclude the effects of food and energy prices, which can be very volatile. During the late 1980s and most of the 1990s the CPI and core measures of inflation largely moved in tandem and Fed policy was very close to that prescribed by the Taylor rule. In 2002 and 2003, however, the CPI and core inflation diverged sharply, the former rising rapidly and the latter falling, leading to conflicting implications for appropriate monetary policy. Both Federal Reserve Vice Chairman Donald Kohn in 2007 and Chairman Bernanke this January pointed to the importance of Taylor's choice of an inflation measure in convincingly criticizing his suggestion that the Fed should have begun raising interest rates in early 2002—when the recovery from the 2001 recession was still anemic and the risks of deflation were clear.

But Taylor's general contention that low rates after 2003 encouraged the housing bubble is largely persuasive, although mostly for different reasons than he provides. In June 2004 the Fed finally began raising the federal funds rate—the rate banks charge one another for overnight loans—as the recovery stabilized and employment and inflation began rising more rapidly. It probably should have started raising rates slightly earlier. Most important, the Fed raised rates only in increments of a quarter of a percentage point (twenty-five basis points); after seventeen such increases the federal funds rate peaked again in June 2006. Fourteen of these "measured" rate rises

were attributable to Greenspan and three to Bernanke, who replaced him in February 2006.

Raising interest rates so slowly and steadily promoted excessive risk-taking, and should have concerned Greenspan, according to his stated views. The Fed's policies thus seem especially peculiar. They helped to create a false sense of security and stability that enticed financial institutions and investors to leverage their investments enormously, borrowing sums that dwarfed the capital they committed.

Such blindly optimistic short-term profit-seeking dominated the investment world for at least two reasons. First, all crises over the preceding quarter-century had apparently been contained by effective Fed actions, suggesting that any new problems would be dealt with as well. Second, by telegraphing its intentions to raise rates only at a "measured" pace, the Fed eliminated concerns about a sharp rise in interest rates, a principal worry for highly leveraged investors. And because these deliberate rate increases began when the federal funds rate was only one percent, attractive rates were guaranteed to persist for some time.

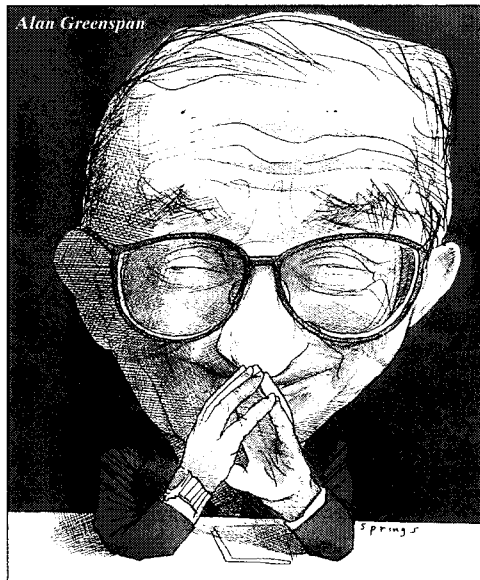
Getting the federal funds rate to near 3 percent much more quickly would have introduced a healthy dose of caution to investors in the years when the housing bubble inflated most rapidly. Moreover, the versions of the Taylor rule used by Federal Reserve policymakers not only suggest that rate increases should have started earlier in 2004, but also show that rates should have reached 3 percent before the end of that year.

Why didn't Greenspan act more aggressively to quickly raise interest rates to 3 percent or higher? He claims that it wouldn't have mattered, that he "could not have prevented" the housing bubble through monetary policy because the Fed could not influence longer-term interest rates, such as mortgage rates, which are most relevant to housing markets. In his view, the Fed was hamstrung by rapidly growing excess savings in developing countries—mainly China and oil-exporting countries—which were invested in the bond markets of both the United States and other advanced economies. By infusing so much money into these markets, China and others pushed "global long-term interest rates progressively lower between early 2000 and 2005." These capital flows from emerging to developed economies not only financed government deficits. By pushing interest rates down, they funded the US housing boom and consumption binge as well.

Such global imbalances did indeed make it more difficult for the Fed to influence longer-term interest rates, but they did not render it helpless to cool the housing bubble and offset the growing risks to the economy. At the very least, as both Taylor and Bernanke argue, higher federal funds rates would have limited the growth both of adjustable-rate subprime mortgages (which are based on shorter-term interest rates) and of the derivative

securities linked to them. In fact after 2004 much of the most reckless behavior leading to the meltdown originated in irresponsible lending and trading in subprime mortgages and derivatives.

We will never know how effective more forceful monetary policy would have been since it was never tried. The approach taken by the Fed failed, in part because of the way in which financial institutions and investors evaluate their risks. Most measures of risk are derived from the volatility of asset prices—basically how much they fluctuate—and the extent to which portfolios contain a diverse variety of securities. During booms these estimates of risk



tend to fall because asset prices—the price not only of stocks and bonds but of real estate and other assets as well—rise and volatility tends to fall or rise only slowly. The resulting decline in estimated risk is taken by investors as a signal that it is safe to increase leverage and take on more risk; but it can be a seriously misleading signal.

Greenspan's monetary policy reinforced these failings of existing methods of risk control. Without the threat of a sharp rise in interest rates, estimated risks fell and restraint evaporated, encouraging the foolishly optimistic behavior of banks and investors. In such a heady environment, competitive pressures are hard to resist and financial institutions tend to gloss over the well-known limitations of their own risk models in order to pursue opportunities for short-term profit. The false precision of these mathematical models—they are well defined and superficially exact even while frequently deceptive—gave their predictions far greater credibility than they deserved and made it easier for bank executives to ignore more impressionistic judgments based on historical comparisons, anecdotal evidence, or common sense. All these would have called into question the reliability of estimates that indicated low risk amid a rapidly inflating housing bubble.

In addition, compensation schemes for managers and traders generally were linked to short-term profits, giving them outsized incentives to take risks regardless of the longer-term consequences. From some of his statements Greenspan seemed fitfully aware of some of these problems; yet he adopted policies that made them worse.

The Fed's unwillingness to raise interest rates quickly would have been less serious if regulation had been more effective at curbing the emerging risks in the financial sector and the economy. But regulations were not well enforced. For example, Greenspan explicitly rejected Federal Reserve Governor Edward Gramlich's warnings about the need for the Fed to curtail widespread abuses in mortgage markets. Earlier he also rejected the strong warnings of Brooksley Born, the head of the US Commodity Futures Trading Commission, about the many dangers of unregulated derivatives. Existing regulations also were inadequate. Partly that was because bank regulations did not cover investment banks such as Bear Stearns and Lehman Brothers, major bundlers of subprime mortgages for worldwide sale that were at the heart of the crisis. (They were regulated—quite superficially—by the Securities and Exchange Commission and the New York Stock Exchange.)

Nor did the regulations take full account of how much the "shadow" banking system added to potential losses for banks such as Citibank that sponsored "structured investment vehicles" (SIVs). These entities, which functioned much like investment funds, were established largely to circumvent regulatory limits on their sponsors. They didn't take deposits and acquired their portfolios of illiquid mortgage-related securities mainly through short-term borrowing. Hedge funds often provided equity capital for the SIVs, which were managed by their sponsors who charged a fee for their services. The sponsors sometimes provided emergency lines of credit as well. When the value of the SIVs' portfolios plunged and their funding sources dried up in the credit crunch, they had to be reabsorbed, adding to their parents' losses.

In addition to such problems of scope, the existing bank regulations—primarily capital requirements and limits on leverage—also failed to sufficiently constrain leverage and risk-taking during the buildup to the crisis. These closely related concepts are the key components of bank regulation, probably of all financial regulation, and their breakdown during the crisis was largely a consequence of the way both variables were measured. Capital, rather than being limited to a bank's tangible common equity—essentially the portion of its net assets due to its shareholders, which is subordinate to the interests of depositors and creditors—generally included intangible items such as goodwill as well as preferred shares and deferred tax credits, whose value depended on future profitability.

Similarly, capital requirements were based on different assets' supposed "riskiness," which tended to fall during the boom, and leverage ratios were calculated by comparing a bank's capital to its risk-adjusted assets. Measuring capital so generously and adjusting assets in this way made leverage appear lower and capital seem more adequate than they were.

In this respect the regulations were very much like the risk models that investors and financial firms used.

Indeed, the highly influential Bank for International Settlements, an organization of central banks that seeks to coordinate bank regulations, proposed in 2004 that, in determining banks' capital requirements, regulators should rely in part on banks' own risk models as well as on data provided by credit-rating agencies such as Moody's or Standard and Poor's, agencies that were paid by the very financial institutions whose credit they were assessing.

These proposals were widely adopted—and turned out to be dangerously misleading. As a consequence of procedures like these, which justified extremely low capital requirements for AAA-rated mortgage derivatives—1.6 percent of the holdings, equivalent to leverage of more than 60 to 1 for these securities and less than half the capital required to hold individual mortgages—Lehman was thought to be well capitalized just a week before its bankruptcy. Absurdly low capital requirements also explain why banks retained such vast quantities of mortgage-related securities on their own books, setting themselves up for huge losses when the housing bubble burst.

“When a regulatory mechanism has failed to mitigate boom/bust cycles,” the authors of *The Fundamental Principles of Financial Regulation* (a “Geneva Report” by an international group of economists) observe, tinkering around the edges is not likely to be sufficient. What is required is a new approach that concentrates on the need for financial regulation to moderate the business and credit cycles, acting as a “countervailing force” to the rising use of leverage and risk-taking during a boom and helping to offset the damage in a collapse. Moreover, the regulatory mechanism should be based as much as possible on clear, mandatory rules, since regulators often are loath to slow down a boom and have been susceptible to lobbying by financial firms, factors that may help to explain Greenspan's failures. The United States and most other developed countries have now endorsed the need for such new rules—although so far, it must be stressed, little has been done to implement them.

The Geneva economists propose a deceptively simple mechanism for linking capital requirements to the changing risks that major financial institutions pose to the entire banking system. They would multiply current or improved capital requirements—the Bank for International Settlements is now considering such a revamped set of requirements—by a series of factors, one based on how fast a bank's assets and leverage grow; a second geared to the extent to which a bank's assets are financed by shorter-term borrowing that might dry up in a crisis; and possibly a third based on the degree to which a bank's bonus and other compensation schemes encourage excessive risk-taking.

This approach, which could be applied incrementally to a nation's most important and interconnected financial institutions as an expansion grows, seems promising, and the elements it incorporates are critical. As the financial crises of the last two years have shown, the combination of high bank leverage, extensive reliance on short-term borrowing, and management compensation schemes that reward short-term results can be lethal.

The Geneva plan would apply to all financial institutions—commercial banks and bank holding companies, investment banks, insurance companies, and hedge funds—whose health might have a significant impact on the entire financial system. And the new capital requirements would take account of the companies' affiliates and their liabilities, even if these obligations don't appear explicitly on their balance sheets. The plan is comprehensive, straightforward, and clear—great virtues, especially in the world of opaque bank regulations. But how effective such a system would be will depend on how well the proposed new multiples are chosen.

In late January President Obama outlined several new elements that he believes should be added to the financial reform measures that are slowly working their way through Congress. The new proposals focus primarily on the problem of financial institutions that are thought to be “too big” or “too important” to fail because their failure might trigger an economic crisis like the one we're emerging from now. As a consequence, such institutions benefit from an implicit government guarantee against total collapse, one that became explicit during the crisis when many banks were rescued at great initial cost to taxpayers. As the President observed on January 21, in order to avert a worse calamity,

the American people—who were already struggling in their own right—were forced to rescue financial firms facing crises largely of their own creation. And that rescue... was deeply offensive but it was a necessary thing to do, and it succeeded in stabilizing the financial system and helping to avert that [threatened] depression.

Although a large chunk of these bailout costs has been repaid as the economic climate improved, Obama wants to impose a fee on the largest financial firms in order to repay the remaining cost of the rescues over the next ten years. This proposal, which has yet to come before Congress, is, if anything, too limited, since the government's need to protect major financial institutions from system-threatening disasters will not expire after ten years. A continuing fee levied on important financial firms would thus be warranted as a payment for the catastrophe insurance that the government will continue to provide. This insurance, whether implicit or explicit, allows these companies to raise capital more cheaply than they otherwise could; not surprisingly, it also has encouraged risk-taking and enhanced their profitability, a consequence of insurance that economists call “moral hazard,” i.e., such insurance could work as an incentive for companies to take on risks that they may not have to pay for if they go bad. The fee would pay for some of these benefits and might constrain moral hazards.

The insurance fee could also be used to fund the operations of new “resolution authority,” a critical part of most financial reform efforts, including the bill passed by the House of Representatives. Such authority would allow regulators to seize control of a shaky but important financial institution and

dissolve or reorganize it without messy and lengthy bankruptcy proceedings, and do so in a way that minimizes the need for taxpayer funds. Before government funds were tapped, shareholders and creditors would have to be wiped out. The Fed and the Federal Deposit Insurance Corporation have these powers to control bank holding companies and banks, respectively, and the House legislation would make them applicable to insurance companies and investment banks such as AIG or Lehman.

In addition to the fee, Obama also proposed limiting banks' size and banning activities such as proprietary trading—trading for their own accounts—and sponsoring or investing in hedge funds or private equity funds. The prohibitions are called the “Volcker Rule” after their principal advocate, former Federal Reserve Chairman Paul Volcker. These two initiatives are intended to limit further domination of the financial sector by a small number of firms and to limit the risks that financial firms can take, in particular banks that benefit from government-insured deposits. They complement other financial reform proposals, including the insurance fee, the imposition of beefed-up countercyclical capital requirements such as those proposed by the Geneva economists, and the establishment of resolution authorities.

Some people contend that the Volcker rule is unnecessary, that its goals could be accomplished more effectively through higher capital requirements, and that it would be very difficult to distinguish proprietary trading from what the trading banks do to hedge the potential losses they take on in serving their clients. In addition, such a rule may cause firms like Goldman Sachs to give up their banking licenses—which were acquired during the crisis so that they would be eligible for Fed support. They do a lot of proprietary trading and run large hedge funds and private equity funds, but don't raise much money through deposit-taking. Moreover, the critics point out, the activities affected by the Volcker rule were not major contributors to the crisis.

There's some truth in all these comments but hardly enough to rule out Volcker's proposals, especially if institutions like Goldman Sachs would be subject to stricter new capital, leverage, and liquidity requirements, and be covered by a strong resolution authority, even if they no longer are banks. For if there's one thing we should have learned from the crisis, it's that there are no magic bullets to protect our financial systems and economies forever and that new sources of dangerous behavior may well appear. The Bank for International Settlement's elaborate capital requirements have not worked well; nor have the judgments of bank executives, investors, regulators, or the Fed's monetary policymakers been sound. In fact, many of the rules and judgments have been harmful, not helpful. We can hope that lessons from this crisis, like those from the Great Depression, will be reflected both in better rules and in better judgments. But memories will fade, financial systems will evolve, and no matter how hard we try to put in place effective safeguards, there can be no assurances that it won't happen again. □

—February 25, 2010