ASSESSING THE MONETARY POLICY OF ALAN GREENSPAN'S FEDERAL RESERVE AND ITS PART IN THE PRODUCTION OF THE STOCK MARKET AND REAL ESTATE BUBBLES

BOOK REVIEW:

WILLIAM A. FLECKENSTEIN & FREDERICK SHEEHAN, GREENSPAN'S BUBBLES: THE AGE OF IGNORANCE AT THE FEDERAL RESERVE (McGraw-Hill 2008)

REVIEWED BY JEREMY KIMBALL*

I.
INTRODUCTION: EASY MONEY AS THE CHIEF FACILITATOR OF THE STOCK MARKET AND REAL ESTATE BUBBLES IN THE UNITED STATES

In November 1998, a company called TheGlobe.com went public at $9 per share.[1] At the end of the day, the stock's price equaled $63.50, and at one point during the day, TheGlobe.com traded at $97 per share—for a total business value of over $5 billion—though the company had only $2.7 million in revenues (and $11.5 million in net losses) through the first three quarters of 1998.[2] It was the largest initial public offering at that date.[3] Around that time, Alan Greenspan, then Chairman of the Federal Reserve, had cut rates by a total of 75 basis points in roughly six weeks.[4]

Much of William A. Fleckenstein's book, *Greenspan's Bubbles: The Age of Ignorance at the Federal Reserve,* is replete with

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1. Dawn Kawamoto, *TheGlobe.com's IPO one for the books,* CNET NEWS, Nov. 13, 1998, http://news.cnet.com/2100-1023-217913.html.

2. *Id.*

3. *Id.*

4. William A. Fleckenstein & Frederick Sheehan, Greenspan's Bubbles: The Age of Ignorance at the Federal Reserve 59 (McGraw-Hill 2008).

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such reminders of the maniacal stock market boom of the late 1990s and, later, the real estate boom. In fact, the book often reads like a timeline: the author recounts when the Federal Reserve cut interest rates and by how much, and what events coincided with rate movements. The author seeks mainly to expose Greenspan as, at best, human and fallible (though myopic and unwilling to admit his mistakes) or, at worst, incompetent. To achieve this goal, the author presents many of Greenspan's remarks alongside discussion of the Fed's rate cuts and the events that the rate cuts ostensibly engendered to illustrate Greenspan's purported inability to digest events as they unfolded in the stock market, the real estate market, and the economy as a whole during his time as Chairman of the Fed.

Fleckenstein's central thesis is that Greenspan's policies at the Fed ignited the stock market and real estate bubbles: these bubbles arose because Greenspan constantly set "interest rates at a level that was too low" and "held them there for too long."[5] Greenspan's "critical flaw," Fleckenstein contends, was not that Greenspan made mistakes but that he refused to admit them.[6] As a result, Greenspan "never learned from his errors of judgment, repeating them time and again over the course of 19 years," and "bailed out the world's largest equity bubble with the world's largest real estate bubble."[7] Fleckenstein focuses largely on interest rates but also ties in a discussion of margin requirements and liquidity injections.

In many instances, Fleckenstein persuades. Juxtaposing Greenspan's comments at different times, the author exposes inconsistencies in Greenspan's beliefs about the existence of a given bubble and his beliefs about the Fed's ability to deflate a bubble. Moreover, Fleckenstein discusses many of the premises on which Greenspan based his conclusions that the economy was growing in a meaningful way during the stock market and real estate bubbles and shows that many of those premises were erroneous. The U.S. was experiencing growth of an ersatz and ephemeral kind; yet, Fleckenstein argues, Greenspan's monetary policy never acknowledged that fact.

5. *Id.* at 164.
6. *Id.* at 186.
7. *Id.* at 168.

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Fleckenstein is not always fair to Greenspan and hindsight bias is infrequently the most lenient judge. And, of course, in a large economy like that of the U.S., myriad factors contribute to economic success, failure, and speculative frenzies. But at the very least, the book is an interesting overview of Greenspan's policies while he was Chairman of the Fed; of the mania that characterized the stock market and real estate bubbles; and of the ability of the Federal Reserve to mitigate (or amplify) momentum in markets and economic trends.

II.
GREENSPAN'S MISSTEPS FACILITATE THE STOCK MARKET'S FRENZY

A. *Greenspan Misreads Economic Indicators and Misses the Development of a Bubble*

At the beginning of the book, the author states that Greenspan wrongly forecasted economic events for quite some time: first, as a private consultant; then, as Chairman of the President's Council of Economic Advisors; finally, as Chairman of the Federal Reserve. In January 1973, for instance, Greenspan told the New York Times, "It is very rare that you can be as unqualifiedly bullish as you can be now." Four days later, Fleckenstein notes, the Dow Jones Industrial Average peaked at 1051, then declined 46 percent over the next two years.[8]

Fleckenstein's critique becomes more pointed once he evaluates Greenspan's statements as Chairman of the Fed. Greenspan, the author argues, misread economic indicators repeatedly[9] and, even when he did recognize a bubble developing, hesitated to adjust policy to retard the development of

8. *Id.* at 10. The author also recollects that Greenspan incorrectly predicted that the rate on Treasury bills at the end of 1978 would be 4.4 percent, when they were in fact 9.8 percent. *Id.* at 9.

9. For instance, the author points out that Greenspan cut rates beginning in May 1989, when the economy was weakening. But despite later comments by Greenspan in 1994 that the Fed eased rates in 1989 to address a credit crunch, Greenspan's comments at the time the Fed cut rates indicate no acknowledgement of a credit crunch. *Id.* at 14 (saying that Greenspan said in 1990 that "such imbalance and dislocations . . . in the economy today probably do not suggest anything more than a temporary hesitation in the continuing expansion of the economy'").

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a bubble for fear of upsetting the financial markets.[10] The author provides the following example: Greenspan cut rates from 9 percent to 5.75 percent between May 1989 and July 1991 (when the economy was weakening, which was sensible) but *continued* cutting or maintaining low rates until September 1992; during that period, the Fed cut rates to 3 percent, where it held rates for over a year until February 1994, when it finally raised rates for the first time in five years.[11] Ultimately, Fleckenstein states, "Greenspan apparently had little interest in nipping problems in the bud, preferring instead to clean up whatever mess he left behind with the same actions that started the problem—namely, easy money."[12]

Assuming that the rates the Fed set through the mid-1990s were too low—that is, the Fed was providing "easy money"—why did Greenspan adopt such a policy? And how did he overlook a developing bubble? Fleckenstein concedes that manifold factors contribute to the creation of a bubble: he notes demographics, technological improvements,[13] popularity of programs like CNBC, and a corporate culture that bol-

10. *Id.* at 18 (recounting Greenspan's testimony in 1994 to the Senate about his decisions since 1989 and that the "economy looked quite robust, but we were concerned about the effects on financial markets of a rapid move away from accommodation"). The author also points out, however, that Greenspan, ten days prior to his 1994 testimony, told the FOMC in private that there "appeared to be a bubble and that the absence of uncertainty in the market was 'clearly bad.'" *Id.* at 20. But the author asserts that it was because of Greenspan's undue concern for an adverse market reaction that Greenspan did not move to deflate the bubble. *Id.*

11. *Id.* at 15. Much of the discussion at the outset of the book exemplifies the author's main contention that Greenspan often incorrectly interpreted economic indicators that should guide interest rate policy and adopted a revisionist approach to his actions. For example, in responding the questions about the tech bubble in March 2000, and why he did not raise interest rates or increase margin requirements, Greenspan said that the Fed tried to do so "in 1994/95 and failed." *Id.* at 24. Greenspan argued that the Fed could not have tackled the bubble unless it "'tightened aggressively enough to hurt the economy and profitability . . . to break the back of the stock market, which would destroy the economy.'" *Id.* at 23-24. But, the author points out, Greenspan in 1994 said that, with the interest rate cuts in May 1994, the Fed "clearly demonstrated that the bubble for all practical purposes had been defused . . . ." *Id.* at 24.

12. *Id.* at 22.

13. Increasing ownership of personal computers, the author says, gave people the illusion of control over their investments and provided people with abundant information about their investments. *Id.* at 32.

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stered speculation not by "actual earnings but through the creative expression of those earnings."[14]

But Fleckenstein saves plenty of blame for Greenspan.[15] Fleckenstein claims that Greenspan overlooked the burgeoning stock market bubble because Greenspan thought that the market was merely recognizing that many companies had been undervalued; Greenspan thought that accounting standards did not account correctly for the value of intellectual services and that reported productivity growth[16] and profits were understated.[17] Fleckenstein says that Greenspan believed that increasing stock prices reflected the market's acknowledgment that companies' values were higher than their book values.[18] Because Greenspan thought that the country's productivity was increasing more than recorded, it followed that the rate of inflation was overstated. Concomitantly, the Fed did not need to maintain high interest rates to quell the potential

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14. *Id.* at 31-32.

15. *See id.* at 49 ("[T]he late 1990s didn't witness simply an overvalued market; the *United States experienced the biggest stock market bubble the country had ever experienced,* one that was so out of control you would think that any individual school in the fields of finance and economics would be sure to recognize the situation for what it was.").

16. Fleckenstein asserts that technological improvements lulled Greenspan into complacency. *See id.* at 95 (stating that "technology . . . can be a powerful aphrodisiac. It certainly had its way with the Chairman"). Greenspan, the author avers, thought that only in the late 1990s had networking become so pervasive that companies could take full advantage of new technologies, and the resulting increased productivity. *Id.* at 116. The author says that it was Greenspan's "love affair with productivity growth" that allowed him to "rationalize the bubble in the first place . . . ." *Id.* at 116.

17. *See id.* at 35 (recounting Greenspan's remarks in an August 1995 FOMC meeting that "[i]f in effect there has been a failure to capture all the output that has been occurring, we will indeed show productivity growth that is too law. It is hard to imagine that productivity is moving up only around 1 percent under the new weighting basis with profit margins moving the way they are . . . I think the difficulty is not in productivity; it is at the Department of Commerce").

18. For instance, many items that were expensed, such as software and telecommunication technologies, should have been marked as assets. *See id.* at 34 (providing Greenspan's remarks in an August 1995 FOMC meeting that "we are probably expensing items that really should be capitalized").

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threat of inflation;[19] nor did Greenspan see a need to raise margin requirements in the absence of a bubble.[20]

B. *Greenspan's Policies Facilitate the Stock Market's Frenzied Ascent*

Fleckenstein charges that Greenspan not only failed to recognize the bubble developing but that he "contributed to [it]. . . at every opportunity."[21] To support this contention, Fleckenstein refers to several rate cuts. In September 1998, for instance, the Fed cut rates from 5.5 percent to 5.25 percent and then one month later cut rates again between meetings, which Fleckenstein calls "one of the most irresponsible acts in the history of the Federal Reserve."[22] While the Fed initially cut rates to attenuate any deleterious effects on the economy from the collapse of the Russian Ruble and Long Term Capital Management, Fleckenstein contends that there was no economic need for the second rate cut. Indeed, the second rate cut engendered the notion of the "Greenspan Put," which created a moral hazard in which "speculators [felt they] could take enormous amounts of risk trusting that Greenspan would do anything to stop the market from a serious decline."[23]

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19. *See id.* at 44 (noting Greenspan's comment that "[t]he proposition that inflation has stopped falling is not provable. . . . [I]f we look at the data . . . [inflation] as been edging lower . . . The reason is very clearly that productivity is badly underestimated . . .").

20. The author contends that margin debt, which the Fed was empowered to affect, remained too high. *Id.* at 87. In February 2000, total margin debt "stood at $265 billion," which "had grown 45 percent since the previous October and had more than tripled since the end of 1995." *Id.* The high use of margin debt, the author argues, "was an unmistakable sign of rampant speculation." *Id.*

21. *Id.* at 49.

22. *Id.* at 51.

23. *Id.* at 55. Fleckenstein also criticizes Greenspan for the ensuing rate cuts (a total of .75 percent in six weeks) which in November 1998 brought rates to 4.75 percent, which was "nuclear, kicking off a wave of speculation unlike any ever seen in this country." *Id.* at 59. Furthermore, the author says the Fed fueled speculation in 1999 by injecting the financial system with liquidity to ease Y2K fears, the result of which "produced an out-of-control frenzy." *Id.* at 74. Between September 20 and November 10, 1999, the Fed increased the money supply by $147 billion, "which was an annualized growth rate of 14.3 percent," and which "went a long way toward explaining the bubble itself." *Id.* Fleckenstein argues that the Fed "printed all of this money to save U.S. citizens from a nonproblem without taking any action

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Fleckenstein successfully argues that Greenspan was not fully aware that a bubble was developing. He refers, for example, to a remark by Greenspan on March 6, 2000 that "[t]he fact that the capital spending boom is still growing strong indicates that businesses continue to find a wide array of potential high-rate-of-return, productivity-enhancing investments. And I see nothing to suggest that these opportunities will peter out any time soon."[24] As Fleckenstein notes, four days later, the Nasdaq hit its peak of 5048, from where it declined 84 percent in the ensuing 30 months (and down to 3164 in May 2000).[25]

With the benefit of hindsight, it is at times hard to see how the Fed missed the bubble developing. For instance, the author notes that the day after Thanksgiving in 1998, "every one of the top 15 percentage-gain leaders traded on Nasdaq was up at least 45 percent!"[26] To be sure, some prominent finance figures, such as Paul Volcker, seemed to notice what Greenspan did not: in May 1999, Volcker said, "The fate of the world economy is now totally dependent on the growth of the U.S. economy, which is dependent on the stock market, whose growth is dependent on about 50 stocks, half of which have never reported any earnings."[27] Moreover, many of the valuations now appear outrageous. For instance, Fleckenstein points out that at one point, Microsoft's market capitalization stood at $530 billion, approximately 6 percent of the U.S. GDP.[28] (For comparison, Microsoft's current market capitalization is about $136 billion—the difference would be even starker if inflation were taken into account.)

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whatsoever (for example, raising margin requirements) that might have at least prevented the final six-month blow-off in the mania." *Id.* at 79.

24. *Id.* at 89.

25. *Id.* at 55. Moreover, in April 2000, when the Senate Banking Committee questioned Greenspan about whether the Fed would try to deflate the stock market bubble, Greenspan responded, "That presupposes I know that there is a bubble . . . . I don't think we can know there's been a bubble until after the fact." *Id.* at 99.

26. The author goes on to cut down Greenspan again, saying that "[t]o anyone with even a modest knowledge of financial history, it was an unmistakable flashing neon sign that screamed, 'reckless speculation underway.'" *Id.* at 60.

27. *Id.* at 67.

28. *Id.* at 65.

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III.
GREENSPAN'S ATTEMPTS TO EASE THE REPERCUSSIONS OF THE STOCK MARKET BUBBLE BRING ABOUT A DEBT BUBBLE

A. *Greenspan Becomes Enamored with New Financial Instruments*

After the tech bubble, Fleckenstein points to Greenspan's embrace of financial "innovation" and housing as the great economic drivers. Greenspan, the author contends, engendered a second bubble—which in essence was a debt bubble that allowed homeowners to draw continually on the equity of their homes—with low interest rates to mitigate the adverse effects of the tech bubble. For instance, Fleckenstein notes that the Fed cut rates 11 times in 2001 and, interestingly, that at the December 2001 FOMC meeting, in a sign of what was to come, "the word *mortgage* was mentioned 40 times."[29]

Greenspan was, in many ways, sanguine about the newfound abilities of the financial system to manage and allocate risk. In an appearance before the House Financial Services Committee in February 2002, Greenspan noted that the downturn was "significantly milder . . . than the long history of business cycles would lead us to expect because of technology. . . and financial innovation."[30] Greenspan went on to say, "New financial products—including derivatives, asset-backed securities, collateralized loan obligations, and collateralized mortgage obligations [have given lenders]. . . the opportunity to be considerably more diversified, and borrowers are far less dependent on specific institutions for funds. . . . [These instruments] contributed to the development of a far more flexible and efficient financial system."[31]

29. *Id.* at 124.

30. *Id.* at 127.

31. *Id.* Of course, the real estate bubble took some time to gain momentum, so many of Greenspan's comments before he left the Fed in 2006 might be shielded from criticism on that ground. But the author points out that other people noticed the bubble prior to Greenspan's departure. For example, he quotes Sir John Templeton, who in July 2003 noticed, "Every previous major bear market has been accompanied by a bear market in home prices . . . . This time, home prices have gone up 20 percent, and this present a very dangerous situation." *Id.* at 145.

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B. *Easy Money Sets the Conditions for Real Estate Bubble*

Fleckenstein maintains that Greenspan disregarded the risk that low interest rates would produce a debt bubble. Indeed, Greenspan thought that real estate was "especially ill suited to develop into a bubble" because of the substantial transaction costs and limited arbitrage opportunities (e.g., houses are often not perfect substitutes for one another).[32] Moreover, the author argues that Greenspan was overly concerned with "a new bad guy with which [the Fed could] rationalize its emergency low rates," namely deflation. It was a fear of deflation that drove Greenspan to cut rates in June 2003 for the thirteenth time to 1 percent. Rates stayed at that level for nearly a year.[33]

Fleckenstein also points out that the real estate bubble would not have developed without deregulation of the financial system and the resulting securitization process of mortgage debt, a cause Greenspan championed.[34] Furthermore, Greenspan even encouraged homeowners to demand adjustable-rate mortgages when he gave a speech in February 2004 in which he told homeowners that they "might have saved tens of thousands of dollars had they held adjustable-rate mortgages, rather than fixed-rate mortgages during the past decade."[35]

IV.
Complexity and Hindsight Bias Complicate Attempts To Assign Blame

Ultimately, Fleckenstein argues that, under Greenspan, the U.S. financial system "came to depend on assistance from the Fed whenever it had taken on too much risk," and "the creative destruction component of capitalism was routinely suppressed."[36] The main consequence of Greenspan's policies was "a loss of fear," or moral hazard.[37] The author argues that

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32. *Id.* at 131.
33. *Id.* at 145.
34. *Id.* at 152.
35. *Id.* at 155.
36. *Id.* at 185, 187.
37. *Id.* at 166 ("What Greenspan also failed to comprehend is that even if he and the FOMC members had seriously discussed the stock market bubble and concluded that it would be *safer* to deal with the aftermath than try to put a stop to it, as [Greenspan] claims they did, it would have been a terrible

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people lost respect for the idea that they might lose money, and as a result, "the United States, individually and collectively is swimming in an ocean of debt. . . ."[38]

Fleckenstein also asserts that "[r]isking a recession in an attempt to stop the bubble would have been a good policy decision, because the longer bubbles expand, the more damage they do when they burst."[39] Fleckenstein lambastes Greenspan for Greenspan's comment that "[i]t seems reasonable to generalize from our recent experience that no low-risk, low-cost, incremental monetary tightening exists that can reliably deflate a bubble."[40] Fleckenstein juxtaposes Greenspan's comment with an excerpt from *The Economist*, which stated, "[t]he correct test is not whether a bubble can be deflated without some loss of output. Rather, it is whether the early pricking of a bubble causes less pain than letting it grow only to burst later."[41]

Only with the benefit of hindsight, however, can we now see that risking a recession to stop the bubble would have been sensible. While it is now clear that the bubbles brought about economic calamity, it is rarely clear how to time a response as a bubble is developing. This difficulty is due not necessarily to lack of information or absence of warning signs, "but to lack of precise information concerning time and place, without which effective response is impossible except at prohibitive cost."[42] While the statement in *The Economist* is true, such an analysis is often prohibitively costly or difficult: it is "often impossible to do responsible cost-benefit analysis of measures to prevent a contingency from materializing if the probability of that happening is unknown. The cost of a disaster has to be discounted

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decision. It is a variation of a bailout, and ends up causing people to take more risk than they should because they feel that they will not get hurt. The term for that outcome is *moral hazard*.").

38. *Id.* at 186.

39. *Id.* at 165.

40. *Id.* at 135. Fleckenstein also criticizes Greenspan for being inconsistent in his remarks. *See id.* (recounting Greenspan's comment in September 1996 that the Fed did have "the possibility of raising major concerns by increasing margin requirements. I guarantee that if you want to get rid of the bubble, whatever it is, that will do it").

41. *Id.* at 136.

42. Posting of Richard Posner to The Becker-Posner Blog, http://www.becker-posner-blog.com/archives/2007/12/the_subprime_mo.html (Dec. 23, 2007, 15:30 EST).

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by the probability that it will occur in order to decide how much money [or foregone opportunities] should be devoted to reduce that probability."[43] Quantifying the probability that a bubble will burst and the magnitude of the resulting harm are both, in essence, impossible tasks.

From an ex ante perspective, it would also be difficult to decide to raise interest rates because there have been in the past many *false* alarms, as experts have predicted numerous disasters over the past several decades that never happened.[44] If no bubble were in fact developing, raising rates would have needlessly stifled growth. Thus, while Fleckenstein points out that some economists, academics, and experts at the Fed voiced concerns, there were many other economists, academics, and officers in the Fed who did *not* recognize any warning signs—and these parties were not necessarily myopic or foolish in their perspectives: over the past 25 years, the global economy grew at a remarkable pace.[45]

Fleckenstein also criticizes Greenspan for a comment made in May 1999, when Greenspan said, "There appears little reason to doubt that analysts' continuous upward revisions reflect what companies are reporting to them about improved cost control. . . ."[46] Greenspan went on to say, "To spot a bubble in advance requires a judgment that hundreds of thousands of informed investors have it all wrong. Betting against markets is usually precarious at best."[47] Fleckenstein

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43. Posting of Richard Posner to The Becker-Posner Blog, http://www.becker-posner-blog.com/archives/2008/10/the_financial_c_2.html (Oct. 12, 2008, 20:30 EST).

44. *See* Posting of Richard Posner to The Becker-Posner Blog, http://www.becker-posner-blog.com/archives/2008/10/the_financial_c_2.html (Oct. 12, 2008, 19:48 EST) ("For example, after the hug one-day stock market collapse in October 1987, Business Week and other magazines and newspapers warned that a Great Depression might soon be coming . . . These dire forecasts turned out to be completely wrong.").

45. *See* Posting of Richard Posner to The Becker-Posner Blog, http://www.becker-posner-blog.com/archives/2007/12/the_subprime_mo.html (Dec. 23, 2007, 15:30 EST) ("Inflation rates were low and fluctuations in real output, as measured by the size and duration of recessions, were modest compared to the past. Economists and central bankers . . . believed that we had learned how to keep inflation low, and also had the capacity to smooth out fluctuations in output and employment.").

46. FLECKENSTEIN & SHEEHAN, *supra* note 4, at 66.

47. *Id.* at 68.

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contends that Greenspan should have adopted the role of an overseer, someone who could calm the crowd that had gone mad during the bubble.[48] It is much easier, however, to criticize a failure in the role of overseer than to act ably in that role when knowledge is fragmented and disseminated. Greenspan's comment has merit: the knowledge that investors brought to bear on the market was more specific knowledge than could possibly be aggregated and digested by a central banker.

Similarly, it is understandable how one could view the new financial instruments as a terrific development that helped reduce and efficiently allocate risk in such a way that there was not a bubble taking place, but merely the creation of value from that more efficient allocation of risk. The new instruments "seemed to work quite well in managing, spreading and even reducing the risk of the assets held by banks and other institutions."[49] Even if interest rates had been higher, banks still could have utilized these financial instruments; higher interest rates would not necessarily have precluded banks from offering negative amortization loans or foregoing down payments by borrowers, since the loans could have been structured to reset to a higher rate. Using interest rates to tackle the real estate bubble would have been akin to using a hammer to solve a problem requiring the work of a scalpel: because interest rates affect myriad transactions in the economy, a more specific approach—for instance, to curb the lending practices of Fannie Mae and Freddie Mac, whose operations focus on residential real estate lending—perhaps would have been more appropriate.[50] Moreover, the labyrinthine interconnection of the financial system impeded the ability to identify the vulnerability of the system to an aggregate shock, akin to a classical run on banks.[51]

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48. *Id.*

49. Posting of Gary Becker to The Becker-Posner Blog, http://www.becker-posner-blog.com/archives/2008/10/why_the_warning.html (Oct. 12, 2008, 19:38 EST).

50. Posting of Gary Becker to The Becker-Posner Blog, http://www.becker-posner-blog.com/archives/2008/12/central_bank_co.html (Dec. 7, 2008, 17:57 EST).

51. Posting of Gary Becker to The Becker-Posner Blog, http://www.becker-posner-blog.com/archives/2008/10/why_the_warning.html (Oct. 12, 2008, 19:38 EST).

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V. CONCLUSION

Both the stock market and the real estate bubbles arose from various causes. Jerry Z. Muller, in discussing the causes of current financial turmoil, outlined some of the various causes, including:

> [P]erverse alignments of market incentives, incentives that put personal interests at odds with corporate interests, and corporate interests at odds with the public interest. There were principal-agent problems within firms, where traders were remunerated with bonuses for selling collateralized debt obligations without regard to the long-run viability of the underlying assets. Rating agencies were corrupted because they were paid by the sellers of the goods they rated, offering unreliable evaluations that redounded against the purchasers of mortgage-backed securities. . . . It turns out that intermediation of risk reduces the incentives for adequate risk management: so long as risk is intermediated, from a mortgage loan broker to a commercial bank to an investment bank to an investor, there is really no incentive, at each stage of the game, to have adequate risk-managing policies in place.[52]

Many of these factors contributed to the stock market bubble, as well. And many of these factors are unrelated to interest rates and margin requirements, which the author focuses on in his criticisms of Greenspan.

All of this is not to say that monetary policy was not too loose during Greenspan's years, or that Fleckenstein does not make a convincing case of that argument. Indeed, the Fed's solicitous accommodation can lead to moral hazard, and the author nicely examines the interactions between the economy and markets, and the Fed's actions. This book ultimately provides a thorough analysis of one prominent force.

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52. Jerry Z. Muller, *Our Epistemological Depression*, THE AMERICAN, Jan. 29, 2009, http://www.american.com/archive/2009/our-epistemological-depression.

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