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Unraveling the Financial Crisis of 2008

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In the fall of 2008, the world economy experienced a "once-in-a-century credit tsunami" (Greenspan 2008, 1). Centered in the market for homes and mortgages, the mechanisms that unleashed this financial tidal wave are many and complex. Indeed, an inadequate grasp of modern finance on the part of "the most sophisticated investors" and regulators "in the world" was itself a contributing factor (Greenspan 2008, 3).

We attempt in what follows to demystify recent financial events without—we hope—implying that we have all the answers or conveying more assurance than we intend. We proceed in a question-and-answer format, moving step by step from the financial mechanics to the larger and more difficult matter of assigning responsibility for the financial collapse of late 2008.

FREQUENTLY ASKED QUESTIONS

1. Why did lenders issue mortgages to the uncreditworthy?

Banks, savings and loans, and commercial mortgage companies profited handsomely from the fees they charged borrowers for loan origination, documents, points (pre-paid interest), etc. They also made money when they sold these mortgages. These incentives produced a thriving market in "subprime" mortgages—those to homebuyers with low incomes or poor credit histories. As early as 1996, subprime mortgage lending reached a fast-growing $100 billion annually (Chomsisengphet and Pennington-Cross 2006, 37). It peaked at a whopping $625 billion in 2005 (Ashcraft and Schuermann 2008).

2. Who bought these mortgages?

At first, the more aggressive Wall Street investment banks such as Lehman Brothers and Bear Stearns were the principal buyers. They began buying tens of billions of dollars in subprime mortgages annually in the early 1990s (Henriques 2000). Later in the 1990s, the government-sponsored corporations Fannie Mae and Freddie Mac began guaranteeing that people who invested in subprime mortgages would get the money due them.[1] In 1999, under pressure from the Clinton administration, Fannie Mae relaxed credit requirements on the loans it would buy directly from lenders, hoping that easing these restrictions would increase the availability of loans to minority and low-income homebuyers. Fannie and Freddie began purchasing subprime loans for their own portfolios in high volumes circa 2005 (Wallison and Calomiris 2008). Other latecomers to the subprime-buying market were Citigroup and Merrill Lynch, who stayed in the subprime mortgage market far too long (Dash and Creswell 2008; Morgenson 2008).

3. What did the buyers of the subprime mortgages do with them?

The Wall Street firms "securitized" them: bundled them, sliced the bundles horizontally into "tranches" (different levels of risk), and sold the rights to the income generated by these loans as *mortgage-backed securities*. They often mixed mortgages with corporate, government, and consumer debts to create complex structured securities called *collateralized debt obligations*, or CDOs. They also sold CDOs consisting of parts of other CDOs (called CDOs squared), and "synthetic" CDOs that mimicked the performance of real CDOs (Morris 2008, 73–79). Arcane mathematical formulas, devised by Ph.D.'s in mathematics and physics working on Wall Street, calculated the risk and price of these CDOs. Annual sales of CDOs peaked at about $521 billion in 2006 (SIFMA 2009).

Fannie Mae and Freddie Mac, who dealt only in mortgage debt, also securitized some of the mortgages they bought. But they held others in their own portfolios.

It's unclear whether anyone understood the risks of these securities, and many people who bought them went broke when subprime mortgage holders began defaulting in large numbers in 2006. For simplicity's sake, we will refer to all of these instruments as mortgage-backed securities, or MBSs, because all of them contained either mortgages or investments that mimicked mortgages.

4. So who bought them?

Institutional investors—entities with a lot of money to invest, such as pension funds, insurance companies, large banks, university endowments, and hedge funds (large, risky, and mostly unregulated investment funds for rich people). Most of these investors were in the U.S., Europe, or Asia.

5. Why did they buy these MBSs?

To make money. As former Federal Reserve chairman Alan Greenspan told a House Committee in October 2008: "To the most sophisticated investors in the world, they were ... viewed as a 'steal'" (Greenspan 2008, 3). Subprime MBSs paid a higher rate of return than other investments because subprime borrowers had to pay higher rates to get a mortgage. Besides, as of 2004, interest rates were at a 50-year low, thanks to Greenspan. So most other

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bonds didn't pay much. That made the higher rate of return on subprime MBSs especially attractive.

For several reasons, the MBSs, especially the complex CDOs, were also perceived as less risky than other investments. For one thing, the complex CDOs contained many diverse types of bonds, or promises to pay—corporate debts, government debts from different countries, consumer debts, and mortgages; if one type of debt went bad—such as mortgages—the others would still pay off. For another, you could buy an insurance policy called a credit default swap that would pay you just in case your MBS did not. Or if you bought your MBS from Fannie Mae or Freddie Mac, they would sell you insurance that you would get the interest and principal due you. And with your money invested in MBSs rather than stocks, you didn't have to worry about the stock market falling. Finally, the Wall Street rating agencies rated the MBSs as very safe, and many people believed that the home prices that stood behind the value of mortgages would always rise and never fall.

6. Explain these last two factors. Why did the rating agencies give MBSs such high ratings?

Four reasons. First, some of the MBSs such as the complex CDOs contained diverse instruments. And diversity usually makes for safety, as explained above. Second, it's not clear that the rating agencies understood the complex CDOs much better than anyone else (SEC 2008b, 10–13). Third, the rating agencies (Standard and Poor's, Moody's, and Fitch) were paid by the sellers of the MBSs, not by the buyers. So the agencies had a perverse incentive to overstate the soundness of the MBS—like a home inspector working for the seller of a home rather than the buyer (SEC 2008b, 23–27, 31–33). And fourth, most people, including the rating agencies, implicitly assumed that home prices would rise forever.

7. Why did home prices, and the belief that they would always rise, matter?

As long as home prices rose, defaults on mortgages did not pose a major problem for the financial system. In an environment of rising home prices, if you can't pay your mortgage, you can sell your house for more than you paid for it, use the proceeds to pay off the mortgage, and even make a profit on the deal. In effect, you're no different than someone who borrowed money and bought a house with the intent of "flipping" it. In both instances, the bank—or the mortgage holder—gets its money. So there's no big problem for the financial system. But if home prices fall, the lender or mortgage holder might have to repossess the house, resell it for less than the value of the mortgage, and take a loss. When that began to happen a lot, around 2006, people holding MBSs began to realize they were not going to get the income from the MBSs that they had thought they would.

8. If the home buyer makes a standard 20% down payment, wouldn't home prices have to fall by 20% or more for the mortgage holder to lose money on a repossession and resale?

Yes. But two things happened. First, by the late 1990s, homebuyers could often get mortgages with down payments of 3% or less (Romano 1998). So an early default, combined with even a 4% fall in the home price, would produce a loss for the owner of the mortgage when the home was foreclosed on and resold. And from 2006 to 2008, housing prices fell by 25% in major markets across the country (S&P 2009).

9. Didn't the credit default swaps pay the owners of the MBSs the money they were owed?

They did at first. But the sellers of the swaps and others who guaranteed that buyers of MBSs would get their principal and interest—such as Fannie Mae and Freddie Mac—did not have enough money set aside to pay them off when large numbers of mortgage holders began making late payments and defaulting.

10. Let's go back to home prices for a moment. Why did housing prices fall?

Builders overbuilt. And the Federal Reserve raised interest rates from mid 2004 to mid 2006 to prevent inflation from rising. When rates rose, so did payments on the adjustable-rate mortgages many subprime borrowers had taken out, and they could no longer make their mortgage payments. That produced more foreclosures and more houses going on the market, which depressed housing prices even more.

We believe that liberal policies aimed at expanding home ownership bear some of the blame. But we also think that most of the mess resulted from market mechanisms.

11. Who's to blame for this mess?

As we'll see, there is plenty of blame to go around. We believe that liberal policies aimed at expanding home ownership bear some of the blame. But we also think that most of the mess resulted from market mechanisms. The financial institutions that created and sold MBSs, and the large investors that bought them, took excessive risks. They did so largely because they foolishly believed that home prices could never fall and that the process of securitization transformed home loans to high-risk borrowers into safe investments. They also took on too much leverage: they operated with too much borrowed money and not enough of their own funds. Doing so threatened them with ruin if their subprime MBSs declined in value even a little. Smart regulation could have limited both the operation of these mechanisms and the damage they did.

12. What do liberal policies have to do with it?

Conservatives charge that the Clinton administration and congressional Democrats used federal agencies and the Community Reinvestment Act of 1977 to pressure lenders to issue mortgages to low-income, largely minority, and less-than-creditworthy homebuyers. They also claim that the federal government poured too much money into the housing market by pressing the two government-sponsored mortgage corporations, Fannie Mae and Freddie Mac, to buy hundreds of billions in subprime mortgages. These purchases, they allege, inflated home prices and produced the wave of defaults on subprime mortgages that started in 2006 (see, e.g., Brook 2008).

We reject the claims about the Community Reinvestment Act (CRA) for two reasons. First, if the CRA were a prime cause of

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the crisis, we would expect to see large run-ups in home prices, and a subsequent crash, only or mainly in the U.S. In fact, however, there was a huge global boom in home prices from the mid 1990s to 2005 or 2006, with prices rising much more in some countries than in the U.S. The *Economist* magazine called this inflation in home prices "the biggest bubble in history" (*Economist* 2005, 73). The CRA, in force only in the U.S., did not cause this global phenomenon.

We also reject the blame-the-CRA argument because the timing is not right. The CRA's impact had been waning for years before the crisis struck (Joint Center for Housing Studies 2002); the share of home loans under CRA supervision fell steadily under presidents Clinton and Bush, from 40% in 1994 to under 25% by 2005 (Park 2008, 3). Under Bush, however, "the subprime mortgage market experienced explosive growth from 2001 to 2006": the subprime share of the market rose from 8% to 20%, and the securitized share from 54% to 75%, in those years (Demyanyk and Van Hemert 2008, 31–32).

Moreover, the *really* explosive growth in the subprime market started around 2003: the value of subprime mortgages issued yearly rose by 42% from 1998 to 2002, and by 159% from 2002 to 2006 (Chomsisengphet and Pennington-Cross 2006, 37; Ashcraft and Schuermann 2008, 2). And the vast expansion of mortgages "containing very high risk combinations" (such as 40-year loans, no documentation of the borrower's income, and/or little to no down payment) began around 2004 (SEC 2008b, 33).

These developments occurred under a Republican Congress and president, George W. Bush, whose administration curtailed CRA enforcement but championed the expansion of home ownership as well as the real estate and financial industries (Marsico 2006; Becker, Stolberg, and Labaton 2008). We therefore agree with the economists who attribute the surge of subprime lending after 2002 not to the CRA, but to increased demand by investors for MBSs (Angell and Rowley 2006; Kiff and Mills 2007; Mian and Sufi 2008).

The charges concerning Fannie and Freddie are more substantial. In the 1990s, these companies lowered the down-payment requirement for mortgages they would buy. Late in that decade, they announced their willingness to buy mortgages issued to homebuyers with credit scores previously considered substandard (NFR Communications 1997; Holmes 1999). Then, under growing pressure from the Bush administration's Department of Housing and Urban Development (HUD) to support more "affordable" lending, they began buying massive amounts of securities backed by subprime loans—$434 billion worth just from 2004 to 2006 (Leonnig 2008). These purchases supplied subprime lenders with massive sums to use for additional subprime loans. Fannie, Freddie, and HUD failed to check whether these loans truly were affordable, and many of them were not (Calomiris 2008a; Leonnig 2008).

It is unclear, however, whether Fannie and Freddie really made things much worse. It is possible that without those two companies, other subprime investors would have done what Fannie and Freddie did—eventually, at least (Calomiris 2008a, 8–10).[2] And it must be remembered that Fannie and Freddie did not start the subprime game, and immersed themselves in it only in its late innings.

What is clear is that the profit motive and the political and legal imperatives to expand home ownership eventually pushed the two government-sponsored companies to supply the subprime market with large sums of money.

13. Were free market policies to blame?

Again, partly. Late in President Clinton's tenure the administration, the Federal Reserve, the Securities and Exchange Commission (SEC), and bipartisan majorities in Congress blocked the proposed regulation of "derivatives," including credit default swaps (Goodman 2008). These swaps made potentially risky investments like MBSs appear safer, because the buyer of a swap got a guarantee from the seller that if an MBS did not pay off, the seller of the swap would make up the difference.[3] One large seller of these guarantees was the world's largest insurance company, AIG. When it ran short of money to honor its guarantees, its possible bankruptcy threatened millions of its customers around the world (*Economist* 2008).

We will never know, however, whether the regulation of derivatives would have dampened the voracious global demand for high-yielding, safe-rated MBSs by "the most sophisticated investors in the world" (Greenspan 2008, 3).

In 2004, the SEC also agreed to requests from the investment banks—including Goldman Sachs, then headed by future Treasury secretary Henry Paulson—to let them take on more leverage (operate with more borrowed money) (Labaton 2008). The SEC then failed to enforce the weak "voluntary" program it adopted as a substitute safeguard against excessive leverage (SEC 2008a, viii–x).

Shortly before Bear Stearns, Lehman Brothers, and Merrill Lynch collapsed, they were operating with about 30 borrowed dollars for every dollar of their own (SEC 2008a, 120). At this high-flying level, even a 3–4% decline in the value of their assets was enough to wipe them out. The SEC also knew that the first of these firms to fail—Bear Stearns—was dangerously overconcentrated in subprime securities, yet did nothing (SEC 2008a, 17–18).

14. Was the Federal Reserve to blame?

Yet again, the answer is partly. In 2000, Fed chairman Alan Greenspan rejected fellow Fed governor Ned Gramlich's urgings to curb predatory lending in the subprime market, a step that might have mitigated the subsequent meltdown. Greenspan believed that subprime lenders were too numerous to audit, and that action against them might choke off desirable subprime lending (Ip 2007).

One response to these twin objections is that the Fed could have made "examples" out of a few of the most abusive lenders. But given the lure of rich profits in subprime lending before 2007, a successful effort would have required a sustained, high-profile, and possibly draconian campaign. And it would have been only partly effective because most subprime loans originated from commercial mortgage companies outside the Fed's control, as Gramlich later acknowledged (Ip 2007).

Perhaps the most serious charge against Greenspan is that he kept interest rates too low for too long up to 2004, then raised them too far too fast, precipitating the current crisis (Morris 2008, 59–65).

After the terror attacks of September 2001, Greenspan dropped the federal funds rate—the interest rate the Fed most directly controls—to a near-record low of 1%, and kept it under 2% until late 2004. These rates spurred a frenzy of mortgage lending. Greenspan and his successor, Ben Bernanke, then raised the federal funds rate to 5.25% by mid-2006. Because payments in the early years of a mortgage consist mainly of interest rather than principal, an interest rate hike of this magnitude can double the payments on an adjustable-rate mortgage.[4]

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Greenspan made himself look especially bad by giving a speech in February 2004 (Greenspan 2004) urging more Americans to take out adjustable-rate mortgages (ARM's)—five months before he engineered the rate hikes that would cost perhaps several million ARM holders their homes (Colpitts 2008).

The interest rate increases of 2004 to 2006 were not especially sharp when compared to previous periods of monetary tightening. But, as Greenspan's 2004 speech on adjustable-rate mortgages indicates, he did not realize that American mortgage holders were as overextended as they were. Nor, apparently, did Bernanke. So their interest rate hikes, unremarkable though they were by historical standards, helped spark a historic collapse.

Bubbles make owners of the affected assets richer, at least temporarily. To identify bubbles correctly and to deflate them, thereby deflating the wealth of millions of people, is a difficult economic and political problem. But so is the deflationary aftermath of a bubble burst, as the Great Depression and the current crisis show.

No one will ever know whether Greenspan, or perhaps Bernanke, could have averted that crisis. But we believe that some combination of the regulation discussed above, and a greater awareness by the monetary authority of the precarious finances of subprime borrowers, could have lessened the financial upheavals of autumn 2008.

In a sense, however, it is irrelevant to ask whether Greenspan could have averted the crisis. By his own admission, he trusted markets to police themselves, and stood by in "shocked disbelief" (Greenspan 2008, 2) as they nearly imploded.

15. What is to be done?

This question is the hardest one to answer. Goldstein's (2008) proposals provide a solid starting point for reform, once stabilization efforts return the financial system to near normalcy: require banks and insurance companies to operate with more of their own money and less leverage; require lenders and securitizers to operate with more "skin in the game," perhaps by retaining a portion of the loans and securities they issue; get the rating agencies working for lenders rather than borrowers; scrap the Fannie-Freddie, public-private model of mortgage finance that ensures private profit and public loss; reduce the number of U.S. financial regulatory agencies and clarify which of the remaining agencies does what; and establish public exchanges for derivative trading to enhance transparency.[5]

We especially stress three fundamentally important points. First, policymakers must decide how to handle bubbles—unsustainable upswings in prices of assets such as houses, commodities like oil and grain, and stocks (White 2006; Goldstein 2008). Bubbles make owners of the affected assets richer, at least temporarily. To identify bubbles correctly and to deflate them, thereby deflating the wealth of millions of people, is a difficult economic and political problem. But so is the deflationary aftermath of a bubble burst, as the Great Depression and the current crisis show.

Second, we must have sensible regulation. Excessive regulation might weaken or even kill an industry, producing lower incomes for everyone (Goldstein 2008, 13). But if some businesses and industries are too big to fail (as we believe some are), such that taxpayers must bail them out with billions of dollars in the event they founder, government has every right to limit the risks they may take.

Third, the mortgage mess resulted from a public-private partnership formed to expand home ownership by extending credit to the marginal borrower through the degradation of lending standards, rather than by facing the costs explicitly (Calomiris 2008b, 3–4). Several other imbalances result from a related desire by Americans to consume more than current income permits, most importantly the growing U.S. foreign debt and dependence on foreign borrowing. Experts disagree on whether, and for how long, Americans can indulge this desire (Roubini and Setser 2004; Bernanke 2005; White 2006, 10–11). But a heightened willingness to pay the costs associated with national purposes would diminish the potential for future financial upheavals. ■

NOTES

1. Fannie and Freddie made money from the premiums they charged the investors in return for these guarantees. Congress had created Fannie Mae in 1938 to encourage lending by buying mortgages from lenders. (The lenders knew they could always sell their mortgages to Fannie Mae if they needed to raise cash.) Congress privatized Fannie Mae in 1968, and in 1970 created Freddie Mac, another privately owned company, to compete with Fannie.
2. Calomiris places most of the blame on Fannie and Freddie.
3. A derivative is anything that derives its value from something else. A credit default swap, which insures against loss from something declining in value, becomes more valuable as the value of the insured asset falls.
4. Many mortgages in recent years were actually interest-only; some others did not require borrowers to pay even the accumulating interest, at least in the early years of the mortgage, leaving borrowers deeper in debt (Kiff and Mills 2007, 8).
5. We go beyond Goldstein, however, by urging Congress to consider regulation of the market for derivatives, the value of which stood at a staggering $600 trillion in December 2007 (BIS 2008, 3).

REFERENCES

Angell, Cynthia, and Clare D. Rowley. 2006. "Breaking New Ground in U.S. Mortgage Lending." *FDIC Outlook*, Summer. www.fdic.gov/bank/analytical/regional/ro20062q/na/2006_summer04.html.

Ashcraft, Adam B., and Til Schuermann. 2008. "Understanding the Securitization of Subprime Mortgage Credit." Wharton Financial Institutions Center Working Paper No. 07-43. www.newyorkfed.org/research/staff_reports/sr318.pdf.

Becker, Jo, Sheryl Gay Stolberg, and Stephen Labaton. 2008. "White House Philosophy Stoked Mortgage Bonfire." *New York Times*, December 21, 1.

Bernanke, Ben S. 2005. "The Global Saving Glut and the U.S. Current Account Deficit." The Sandridge Lecture, Richmond, VA, March 10. www.federalreserve.gov/boarddocs/speeches/2005/200503102/default.htm.

BIS (Bank for International Settlements). 2008. "OTC Derivatives Market Activity in the Second Half of 2007." May. www.bis.org/publ/otc_hy0805.pdf?noframes=1.

Brook, Yaron. 2008. "The Government Did It." *Forbes*, July 18. www.forbes.com/2008/07/18/fannie-freddie-regulation-oped-cx_yb_0718brook.html.

Calomiris, Charles W. 2008a. "Statement of Charles W. Calomiris." House Committee on Oversight and Government Reform, December 9. http://oversight.house.gov/documents/20081209145551.pdf.

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———. 2008b. "The Subprime Turmoil: What's Old, What's New, and What's Next." Paper presented at the Federal Reserve Bank of Kansas City's Symposium "Maintaining Stability in a Changing Financial System," August 21–22, Jackson Hole, WY. www.aei.org/publications/pubID.28720/pub_detail.asp.

Chomsisengphet, Souphala, and Anthony Pennington-Cross. 2006. "The Evolution of the Subprime Mortgage Market." *Federal Reserve Bank of St. Louis Review* 88 (1): 31–56. http://research.stlouisfed.org/publications/review/06/01/ChomPennCross.pdf.

Colpitts, Mike. 2008. "Foreclosure Crisis Half Over." Housing Predictor, August 18. www.housingpredictor.com/foreclosureforecast.html.

Dash, Eric, and Julie Creswell. 2008. "Citigroup Pays for a Rush to Risk." *New York Times*, November 23, 1.

Demyanyk, Yuliya, and Otto Van Hemert. 2008. "Understanding the Subprime Mortgage Crisis." Working paper. http://ssrn.com/abstract=1020396.

Economist. 2005. "The Global Housing Boom." June 18, 73.

———. 2008. "A Lifeline for AIG." EIU ViewsWire, September 17.

Goldstein, Morris. 2008. "Addressing the Current Financial Crisis." Speech presented at a Peterson Institute event, October 7. www.petersoninstitute.org/publications/papers/goldstein1008.pdf.

Goodman, Peter S. 2008. "Taking Hard New Look at a Greenspan Legacy." *New York Times*, October 9, 1.

Greenspan, Alan. 2004. "Remarks by Chairman Alan Greenspan." Speech at the Credit Union National Association 2004 Governmental Affairs Conference, Washington, D.C., February 23. www.federalreserve.gov/boarddocs/speeches/2004/20040223/default.htm.

———. 2008. "Testimony of Dr. Alan Greenspan." Committee of Government Oversight and Reform, October 23. http://oversight.house.gov/documents/20081023100438.pdf.

Henriques, Diana B. 2000. "Profiting from Fine Print with Wall Street's Help." *New York Times*, March 15, A1.

Holmes, Steven A. 1999. "Fannie Mae Eases Credit To Aid Mortgage Lending." *New York Times*, September 30, C2.

Ip, Greg. 2007. "Did Greenspan Add to Subprime Woes?" *Wall Street Journal*, June 9, B1.

Joint Center for Housing Studies. 2002. "The 25th Anniversary of the Community Reinvestment Act: Access to Capital in an Evolving Financial Services System." Harvard University. www.jchs.harvard.edu/research/crareport.html.

Kiff, John, and Paul Mills. 2007. "Money for Nothing and Checks for Free: Recent Developments in U.S. Subprime Mortgage Markets." IMF Working Paper. http://ssrn.com/abstract=1006316.

Labaton, Stephen. 2008. "Agency's '04 Rule Let Banks Pile Up New Debt, and Risk." *New York Times*, October 2, A1.

Leonnig, Carol D. 2008. "How HUD Mortgage Policy Fed the Crisis." *Washington Post*, June 10, A1.

Marsico, Richard D. 2006. "The 2004–2005 Amendments to the Community Reinvestment Act Regulations: For Communities One Step Forward and Three Steps Back." *Clearinghouse Review* 39: 534. http://ssrn.com/abstract=902430.

Mian, Atif, and Amir Sufi. 2008. "The Consequences of Mortgage Credit Expansion: Evidence from the U.S. Mortgage Default Crisis." Working paper. http://ssrn.com/abstract=1072304.

Morgenson, Gretchen. 2008. "How the Thundering Herd Faltered and Fell." *New York Times*, November 9, BU1.

Morris, Charles R. 2008. *The Trillion Dollar Meltdown*. New York: PublicAffairs.

NFR Communications. 1997. "Freddie Mac Enters Subprime Lending Market." *Northwestern Financial Review*, October 18. http://findarticles.com/p/articles/mi_qa3799/is_199710/ai_n8779941/print?tag=artBody;col1.

Park, Kevin. 2008. "Subprime Lending and the Community Reinvestment Act." Joint Center for Housing Studies, Harvard University. www.jchs.harvard.edu/publications/governmentprograms/n08-2_park.pdf.

Romano, Jay. 1998. "Reducing the Down Payment." *New York Times*, June 7.

Roubini, Nouriel, and Brad Setser. 2004. "The US as a Net Debtor: The Sustainability of the US External Imbalances." www.stern.nyu.edu/~nroubini/papers/Roubini-Setser-US-External-Imbalances.pdf.

S&P (Standard & Poors). 2009. Case-Shiller Home Price Index. http://www2.standardandpoors.com/portal/site/sp/en/us/page.topic/indices_csmahp/0,0,0,0,0,0,0,0,0,1,1,0,0,0,0,0.html.

SEC (Securities and Exchange Commission). 2008a. "SEC's Oversight of Bear Stearns and Related Entities: The Consolidated Supervised Entity Program." Report No. 446-A. Office of Inspector General, September 25. www.sec-oig.gov/Reports/AuditsInspections/2008/446-a.pdf.

———. 2008b. "Summary Report of Issues Identified in the Commission Staff's Examinations of Select Credit Rating Agencies." July 8. http://ftp.sec.gov/news/studies/2008/craexamination070808.pdf.

SIFMA (Securities Industry and Financial Markets Association). 2009. "Global CDO Market Issuance Data." www.sifma.org/research/pdf/CDO_Data2008-Q4.pdf.

Wallison, Peter J., and Charles W. Calomiris. 2008. "The Last Trillion-Dollar Commitment: The Destruction of Fannie Mae and Freddie Mac." American Enterprise Institute. www.aei.org/publications/pubID.28704/pub_detail.asp.

White, William R. 2006. "Procyclicality in the Financial System: Do We Need a New Macrofinancial Stabilisation Framework?" BIS Working Papers No. 193. www.bis.org/publ/work193.htm.

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