

CHAPTER 1

How Efforts to Avoid Past Mistakes Created New Ones

Some Lessons from the Causes and Consequences of the Recent Financial Crisis

Sheila C. Bair and Ricardo R. Delfin

History doesn't repeat itself, but it does rhyme.

—MARK TWAIN

Summary

Much has been written about the causes of the 2008 financial crisis. Not enough attention, however, has been focused on how regulators' attempts to correct for behaviors that led or contributed to previous crises—particularly the savings and loan crisis and the Great Depression—created new problems which culminated in the 2008 financial crisis and continue to present ongoing risks to the financial system. In many instances, policies adopted to address the “lessons learned” from one crisis eventually grew into regulatory blind spots and artificial market asymmetries that helped fuel the next. What then are policymakers to do? On one hand, they need to learn from the past and correct for government lapses and missteps of prior years. On the other hand, they need to do so in a way that doesn't create new problems. Government policymakers need not be caught between the proverbial rock (those who cannot remember the past are condemned to repeat it) and a hard place (first, do no harm). This paper seeks to illustrate the observation and offer some thoughts on how we might find a way through this challenge.

Key drivers of the 2008 financial crisis

We begin with a review of commonly cited key drivers of the financial crisis. Much work has been done on these causes,¹ and we do not endeavor

The thoughts expressed here are the authors' own and do not necessarily reflect the views of their organizations.

1. See, e.g., Financial Crisis Inquiry Commission, *Final Report*.

to redo that work here. We do, however, seek to highlight how many of these key drivers relate to crises past—and potentially crises future. The particular drivers are:

- Highly accommodative monetary policy
- Housing bubble
- The rise of securitization
- The self-regulating markets myth
- Too big to fail

Highly accommodative monetary policy

The post-Volcker era has been characterized by monetary accommodation in response to periods of market or economic distress, with each round of monetary accommodation making the economy more reliant on the availability of easy credit. The resulting “Greenspan put” contributed to moral hazard by reducing losses (and downside risks) and effectively rewarding “upside” risk-takers at the expense of “downside” risk-avoiders.² Given the very long run-up in asset prices—and the cushioning provided by the Federal Reserve to downside shocks—it is not surprising that a bias toward risk-taking and an overconfidence would develop in our financial markets and institutions over time.

Housing bubble

Lower interest rates helped subsidize borrowing and leverage, particularly in housing. Over time, the search for yield among investors (and fees among originators) contributed to a dramatic loosening of mortgage underwriting standards. Increased demand and purchasing power by traditional home-buyers was buttressed by new (and, in some cases, previously unqualified) borrowers and even amateur and professional “flippers.”

A positive feedback loop developed: increased housing prices fed increased demand for housing, and increased fee generation, securitization, and various risk-reduction efforts (and faulty risk assumptions) perpetuated increased capacity (and desire) for mortgage-related lending. Home prices rose dramatically.

2. See e.g., Miller, Weller, and Zhang, “Moral Hazard”; and G.I. (blog), “Don’t you miss the Greenspan Put?”



FIGURE 1.1 U.S. Homeownership Rate

Source: Calculatedriskblog.com (http://bp3.blogger.com/_pMscxxELHEg/SIybDq3rcFI/AAAAAAACT8/3N9zJHw309E/s1600-h/HomeownershipRateQ22008.jpg)

This feedback loop spread to other parts of the economy as well. Increases in housing values and desire for mortgage-related lending brought with them a dramatic increase in consumer spending (and debt fueled by home equity).³

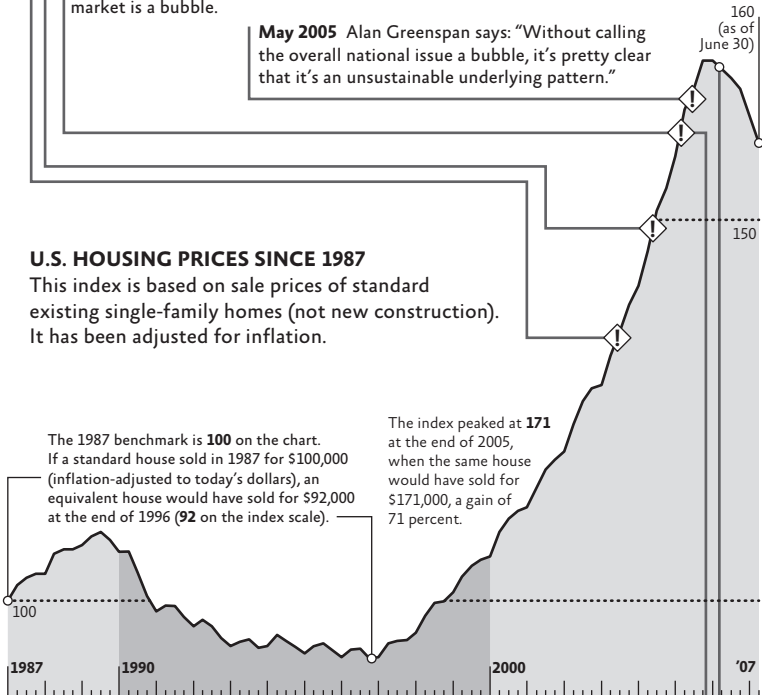
This increase occurred during the same period real incomes were declining for most households.

Eventually, however, home prices stalled and over-leveraged financial institutions exposed to trillions of dollars in mortgage-related securities and derivatives positions began to face losses. They pulled back on issuing new credit and liquidated positions. A negative feedback loop developed.

Losses on mortgage-backed securities, synthetics, and hedging instruments cascaded through the markets, dramatically reducing aggregate wealth and contributing to a massive reduction in lending. Consumers—now facing larger (and potentially resetting adjustable-rate) mortgage debt, flat or falling housing prices, and a dramatically different economy—stopped spending. GDP and employment fell dramatically.

3. See, e.g., Changes in Mortgage-Equity Withdrawal, Quarterly (<http://www.calculatedriskblog.com/2009/03/equity-extraction-data.html>).

May 2005 Alan Greenspan says: "Without calling the overall national issue a bubble, it's pretty clear that it's an unsustainable underlying pattern."



... But Reassuring Words, Too

Feb. 2005 David Lereah's book, "Are You Missing the Real Estate Boom?," is published.

Feb. 2006 Ben S. Bernanke, the Federal Reserve chairman, says policy makers “expect the housing market to cool but not to change very sharply.”

FIGURE 1.2 U.S. Housing Prices Since 1987

Source: *New York Times*, Sept. 23, 2007 (http://www.nytimes.com/imagepages/2007/09/23/weekinreview/20070923_BAJAJ_GRAPHIC.html)

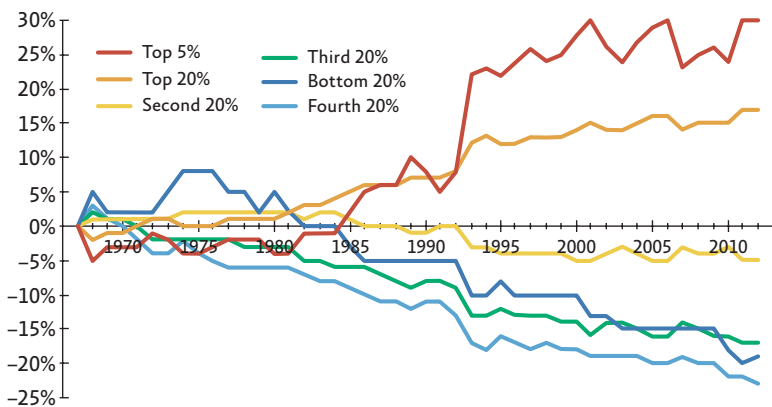


FIGURE 1.3 Change in Share of Total Income, 1967–2012, Relative to 1967, by Percentile

Source: *Mother Jones* analysis of Census Bureau data (<http://www.calculatedriskblog.com/2009/03/equity-extraction-data.html>)

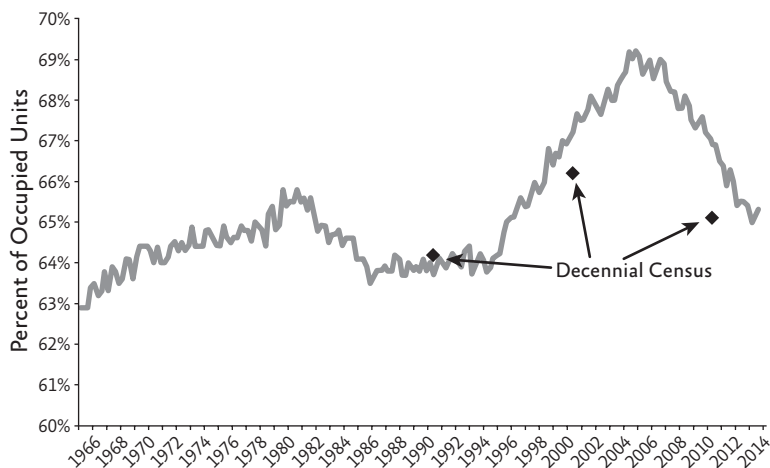


FIGURE 1.4 U.S. Homeownership Rate

Source: Calculatedriskblog.com (<http://1.bp.blogspot.com/-y6bOscnRnVc/UnlSaHRE4MI/AAAAAAAcvQ/-KQAwoA-Ga8/s1600/HomeownershipRateQ32013.jpg>)

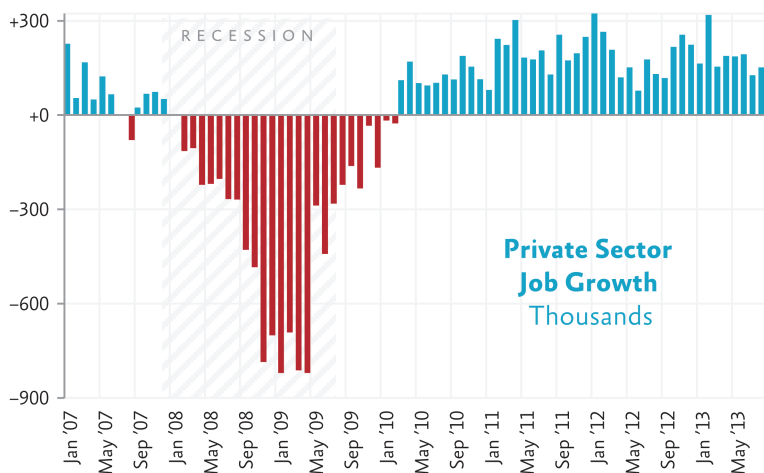
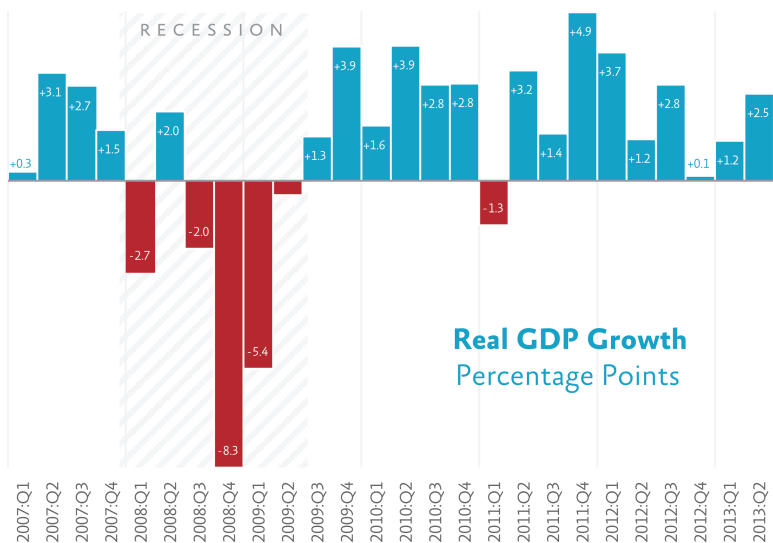


FIGURE 1.5 Real GDP Growth and Private Sector Job Growth

Source: Treasury, “The Financial Crisis Five Years Later: Response, Reform, and Progress” (http://www.treasury.gov/connect/blog/Documents/FinancialCrisis5Yr_vFINAL.pdf)

Crisis response and lessons from crises past

Though the Federal Reserve did increase interest rates in the years leading up to the crisis, it was not in time to stanch inflated housing values. As rates began to normalize in 2006, the housing market turned dramatically. The Fed was forced to reverse course, ratcheting the federal funds rate to near zero and pursuing unprecedented monetary easing (and massive market support) during and after the crisis. Not only did interest rates fall dramatically, the Federal Reserve Board has engaged in a series of positive monetary actions and quantitative easing efforts. Even with this significant support, the economy has been slow to recover.⁴

The ghost of the Great Depression

Fears of the Great Depression were on policymakers' minds during, and after, the crisis.⁵ Given that tight money policies exacerbated, perhaps even caused, the Great Depression, it was certainly reasonable and appropriate for the Federal Reserve Board to take action to avoid a repeat. The recent effort, however, has been large and unprecedented, with the Federal Reserve not only using its traditional interest rate tools, but a host of new tools as well, with the aggressive bond buying called quantitative easing (QE) the most discussed. The Board's unprecedented intervention has been taking place for over five years now, and there are reasonable questions about the potential unintended consequences (and future problems) that might result from the Federal Reserve's experiment.

4. See, e.g., Percent Job Losses In Post WWII Recessions. <http://1.bp.blogspot.com/-ijU6PH-8dt0/UV7FocJzo7I/AAAAAAAAAZtM/WUPGUOPBf9g/s1600/EmployRecMar2013.jpg>

5. See e.g., Paulson, *On the Brink*, 255: ("Is this the worst crisis since the Great Depression?" the President asked. "Yes," Ben [Bernanke] replied. "In terms of the financial system, we have not seen anything like it since the 1930s, and it could get worse.") See also AFP, "Bernanke says crisis 'no comparison':" (Still, the Fed chief said lessons learned from the Depression may still apply today, including the "excessively tight monetary policy" that led to higher interest rates and deflation of about 10 percent a year over the first three years of the 1930s. "We have learned from that experience that monetary policy has got to be proactive and supportive of the economy in a situation of difficult financial conditions," he said. "The other part was—the other error, the big mistake that policymakers made in the early '30s was they essentially allowed the financial system to collapse and they didn't do anything about it. The Federal Reserve did no action as the banks failed by the hundreds and the thousands.")

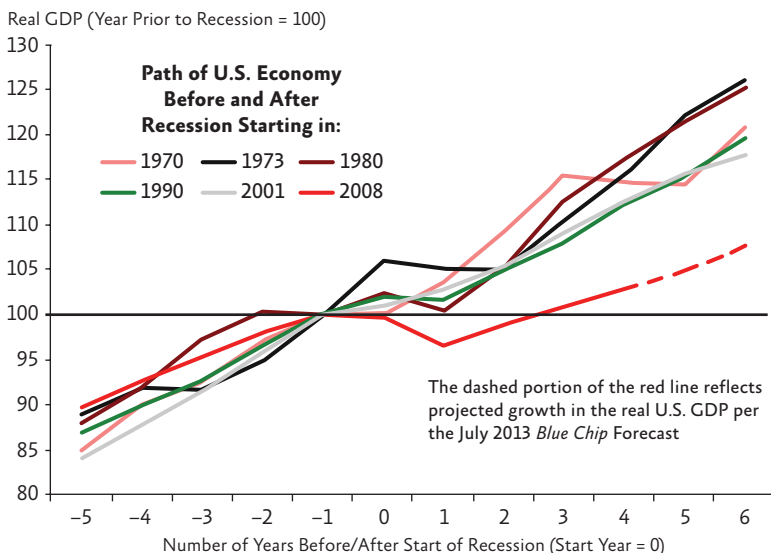


FIGURE 1.6 Path of U.S. Economy Before and After Recessions

Source: FDIC calculations based on data from the Bureau of Economic Analysis

Are new bubbles forming?

While consumers have been de-levering (and large banks have also, to some extent), many are reasonably asking how much of the recent rise in financial asset prices is attributable to market expectations about continued Federal Reserve intervention, and how much is attributable to underlying improvements in economic fundamentals.⁶ While many academics and others have sought to analyze and quantify the impact,⁷ the markets' reaction to the Federal Reserve's statements has been striking.

While the most obvious example was the dramatic sell-off in Treasuries following the Federal Reserve's April–June 2013 statements about

6. We grant that “monetary policy” and “fundamentals” are interrelated: determining “growth” from one is not readily severable from the other analytically. Monetary policy is a part of the system, and increasingly so in the recent past. This growing interrelationship, though, is a part of the concern and unease. Other ways one might ask the question are: “What is the current state of the economy relative to previous economies (on an apples-to-apples/monetary policy) basis?” or “What will happen to these asset prices and the economy when policy accommodation ends?”

7. See, e.g., the excellent work of fellow panelists in this volume.

potentially ending its policy accommodation (“tapering”), the market’s response to the Fed’s apparent reversal in the summer⁸ and the significant reaction to its September 18 surprise “no-taper” news are also illustrative.⁹

While short-term market movements do not a bubble make, the relationship between the Fed’s actions and financial asset prices raises legitimate questions about whether and how existing monetary policies designed to avoid the problems of the Great Depression might be creating new risks for the future.¹⁰

Looking at ten-year treasury yields (TNX), there was substantial volatility around the Federal Reserve’s signals of a possible taper in April and May, a spike in yields following (May to September), and significant rebound in bond prices (reduction in yields) after its September “no-taper” surprise.

Equity markets also appear to have responded to Federal Reserve intervention over time.¹¹

8. See, e.g., Gross, “On the Wings of an Eagle”: (This year’s April taper talk by the Federal Reserve is perhaps a good example of this forward path of asset returns. Admittedly the reaction in the bond market was rather sudden and it precipitated not only the disillusioning of bond holders, but also an increase in redemptions in retail mutual fund space. But then the Fed recognized the negative aspects of “financial conditions,” postponed the taper, and interest rates came back down. Sort of a reverse “Sisyphus” moment—two steps upward, one step back as it applies to yields. . . . Investors now await nervously for news on the real economy as well as the medicine that Janet Yellen will apply to it.)

9. See, e.g., Farrell, “Dow, S&P Hit Record”: (The Federal Reserve is not going to slow down the pace of its bond purchases yet. And that was just what investors wanted to hear. The S&P 500 immediately jumped to a new record high, and the Dow quickly followed. The Nasdaq also moved up after the Fed’s surprise announcement. All three indexes closed up more than 1 percent. Fed chair Ben Bernanke added fuel to Wednesday’s stock rally during his press conference. Bernanke laid out plans to maintain the central bank’s “highly accommodative monetary policy” for the foreseeable future, even if the Fed eventually chooses to taper. Bond yields, which have been rising lately, slid back as well as investors bought more bonds. The ten-year Treasury yield fell to 2.71 percent from 2.87 percent earlier in the day. The Fed’s moves also pushed down the dollar and drove up commodities. Gold prices spiked more than 4 percent following the announcement. Oil prices rose more than 2 percent.

10. See also Duarte and Rosa, “A Way With Words.”

11. Lawler, “Viewpoints”: (Indeed, the performance of US equities has been driven by the increased profits of US corporations. QE may have had some effect on earnings, but it did not have a significant impact on equity valuations as measured by price-to-earnings multiples. While it’s true that P/E ratios did rise after

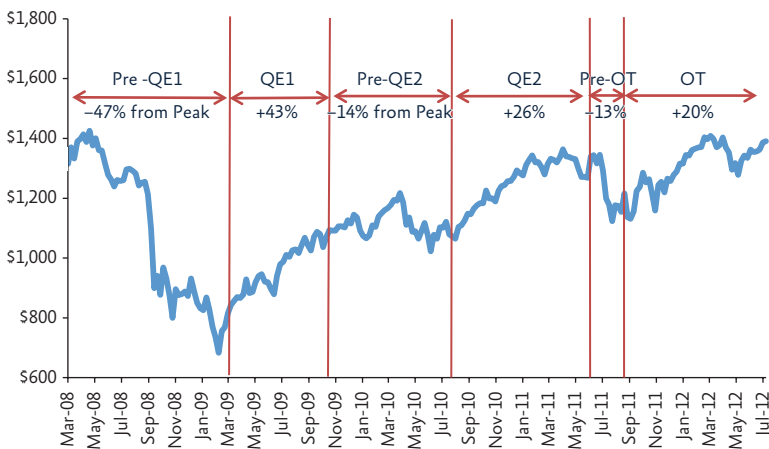


FIGURE 1.7 S&P 500 and Quantitative Easing (QE)

Source: Bloomberg, as of 31 Aug. 2012

Housing prices have also stabilized and rebounded during this period. What happens when the accommodation ends?

The rise of securitization

Funding thirty-year fixed-rate mortgages with short-term, re-pricing deposits proved disastrous in the 1980s savings and loan crisis.¹² In response to that lesson, regulators and market participants sought to replace that traditional funding model with the originate-to-distribute (“securitization”) model. Regulators provided strong incentives to banks to securitize mortgages instead of holding them in portfolio. By moving long-term assets off banks’ balance sheets, the securitization model would, in theory, create much more resilient banks (and protect the federal safety net) by moving longer-term risk onto large investors who could

the announcements of QE2, Twist and Twist 2, the moves were not sustained, and we believe were likely attributable to volatility around market sentiment.)

12. See, e.g., National Commission, *Origin and Causes of the S&L Debacle*. Also see FDIC, *An Examination of the Banking Crises*: (Like mutual savings banks, S&Ls were losing money because of upwardly spiraling interest rates and asset/liability mismatch. Net S&L income, which totaled \$781 million in 1980, fell to negative \$4.6 billion and \$4.1 billion in 1981 and 1982.)

appropriately price it and hold it to maturity.¹³ While over time, more and more speculation and risk-taking developed in the market, downside fears and concerns were masked, in part, by several factors:

- Mortgages had been traditionally considered one of the safest and least exciting financial products.
- While investors understood traditional mortgage risks (e.g., geographic, interest rate, and refinance risk), the conventional wisdom did not account for the potential for widespread decreases in home prices or for mortgage defaults. Moreover, widespread adoption of nontraditional mortgage features, including steep payment resets, negative amortization, high loan-to-values, and little if any income documentation, created new risks which investors simply did not understand or ignored.
- While leverage increased, so did a host of perceived risk-reducing strategies. In addition to diversifying pools by geographies, mortgage pools and cash flows were tranching and resecuritized into other pools and synthetics—sometimes backed by a financial guarantee/wrap and a first-loss buffer, which was also hedged. Further credit protection could also be purchased on the open market.

13. See, e.g., Bies, *Testimony*: 30–31: (When asked about institutions arbitraging assets, Bies noted “Generally they are arbitraging it to the extent I think it is good because they are saying if we can syndicate a loan, securitize an exposure, enter into a derivative transaction, and have someone outside the banking system take on risk, then the bank is stronger and banking system is stronger. The important thing is to understand how it is done. . . . Let me put it in a different perspective. What has evolved really in the last two decades is risk management processes where institutions can keep the risk, and these are sophisticated institutions, can keep the risk they understand best and can manage, and place the remaining risks with other sophisticated investors. These are sophisticated investors because they do have to understand what it is that they are acquiring, whether it is a mutual fund that is looking at the investor direction of that fund, whether it is going into a pension fund, and those fiduciary responsibilities. The buyers of the risk in one way have better information than investors in banks. If you look at data today, we get real-time public data on credit card securitizations that tell you what is happening to current delinquencies and charge-offs. We do not get it if that same credit portfolio is sitting in the bank.”)

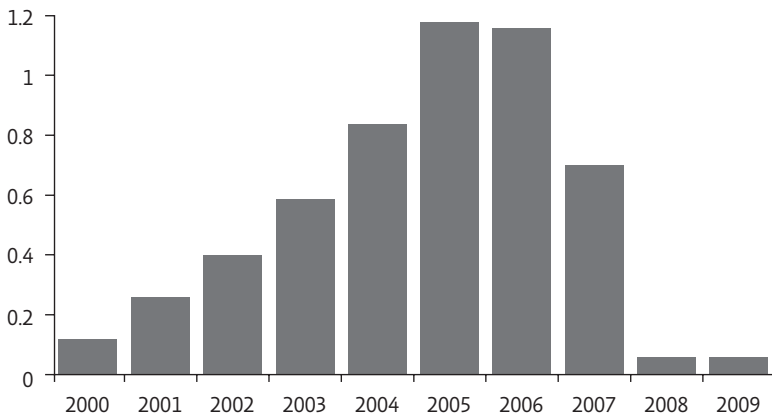


FIGURE 1.8 Issuance of Non-Agency MBS (in trillions)

Source: *Wall Street Journal*; Data from Inside MBS & ABS (<http://securitization.weebly.com/private-label-mbs.html>)

Confidence continued even as the nature of the loans—and the funding channels—changed dramatically. Fannie Mae and Freddie Mac (whose underwriting standards helped provide some loan quality control) were losing market share to new “private label” securitizations.¹⁴ This channel not only created a market for traditionally “lower-quality/higher-risk” subprime loans, it also increased the pool of home-buyers (increasing home prices) and the embedded leverage on many consumers’ balance sheets. This channel swelled before the crisis and froze after.

Securitization also severed the ownership of the mortgage from the decision to originate and fund it.

- The mortgage production process itself became a profitable, volume (fee)-driven business. The traditional “pull dynamic” of the hopeful home-buyer trying to convince a risk-adverse bank lender was replaced by a new “push dynamic” of a commission/sales-driven mortgage broker/lender seeking fees and commissions for generating new loans to home-buyers and refinancers.
- Mortgage servicing and workout incentives were also skewed by structures and incentives that made loss mitigation very difficult.

14. Mortgage debt held by private label ABS issuers increased from 9 percent of the US total in 2003 to 19 percent in 2006. Source: FDIC.

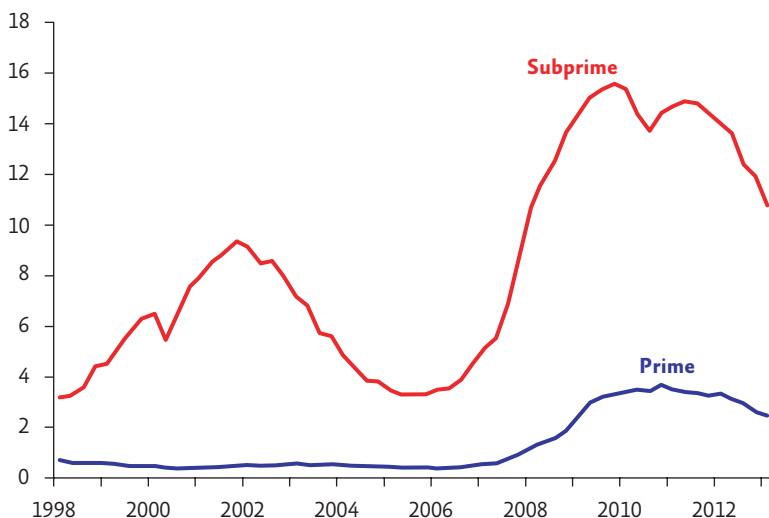


FIGURE 1.9 Conventional Loans in Foreclosure (%)

Source: FDIC Based on Mortgage Bankers Association Data

Because of securitization, mortgages were locked (and sliced) in complicated investment vehicles with complicated rules. Investors with competing interests and those responsible for loan workouts had little or negative economic incentives to mitigate loan losses.

Ironically, in the end many banks (and even the government-sponsored enterprises) ended up bringing many of these risks back onto their books by purchasing mortgage-backed securities and by holding second liens and residual interests. Regulators helped by establishing regulatory capital requirements that first pushed securitization as a way to get loans off of banks' balance sheets and then made it advantageous to bring risky synthetic and securitized loans right back on.

The dramatic rise and fall of short-term wholesale funding

Moreover, while securitization may have sought to reduce some of the longer mortgage risk from traditional bank balance sheets, regulators still permitted significant duration mismatches (this time through increased reliance on short-term wholesale funding). Net repo and fed fund liabilities for private depository institutions and broker-dealers soared in the

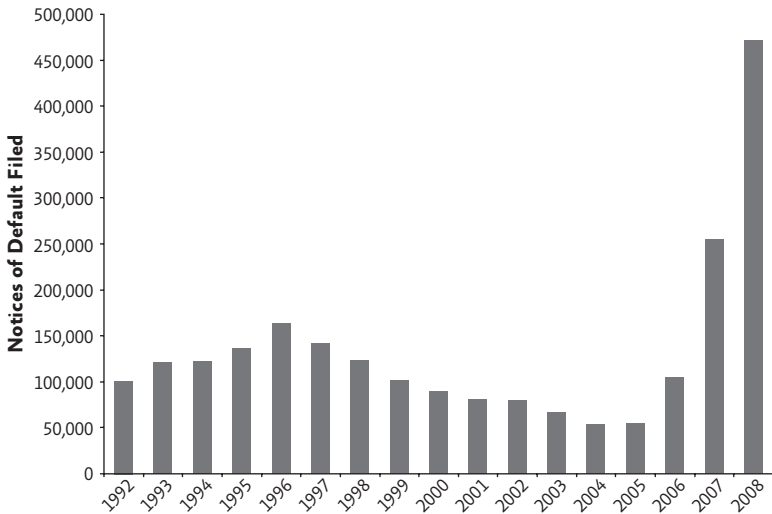


FIGURE 1.10 California Default Notices

Source: Calculatedriskblog (<http://www.calculatedriskblog.com/2008/07/dataquick-record-california-foreclosure.html>)

years leading up to the crisis (from under \$1 trillion at the end of 2001 to \$2.2 trillion in the second quarter of 2006). It is down to \$637 billion in a post-crisis low.¹⁵

The self-correcting markets myth

Another key driver was the myth that the market, left to its own devices, would self-correct and market actors could (and would) best police themselves. This paradigm revealed itself in a variety of policies—and in a general approach to markets, enforcement and market oversight—that allowed massive risk-taking (and abuse) to grow into a norm and eventually a crisis.

- *Congress: Gramm-Leach Bliley and the Commodity Futures Modernization Act.* In spite of the S&L crisis, by the late 1990s to mid-2000s significant deregulation came to the financial services—particularly for the largest, most complex firms. After years of regulatory softening, in 1999 Congress enacted the

15. See Q3, 2013 *Federal Reserve Flow of Funds Report*. Available at <http://www.federalreserve.gov/releases/z1/20130925/z1.pdf>

Gramm-Leach-Bliley Act, permitting more competition—and more consolidation—among traditionally separated financial services providers (banks, insurance, and broker-dealers). The following year, Congress enacted the Commodity Futures Modernization Act, effectively eliminating oversight over the burgeoning over-the-counter derivatives market.

- *Financial regulators also followed suit.* Perhaps the best example is the Basel II capital framework whereby regulators effectively replaced traditional, standardized regulator-set capital charges with a deferential advanced internal models-based approach that allowed companies to build their own models and effectively set their own capital requirements (subject to regulatory oversight of the model) amid expectations of effective self-policing and counterparty/market-policing. During this period of massive changes in the mortgage market, the Office of the Comptroller of the Currency (OCC) thwarted state efforts to impose mortgage lending standards by granting the banks it regulated—including the nation's largest—preemption of state-imposed consumer protections. At the same time, the Federal Reserve Board refused to use its authority under the Home Ownership and Equity Protection Act to adopt mortgage lending standards, even though it was the only federal agency with power to set national standards for bank and nonbank mortgage originators.

These approaches were central to the pre-crisis period and failed dramatically,¹⁶ spawning a new approach.

From hands-off to command-and-control?

Given past regulatory shortcomings—and clear examples of systematic abuse, gaming, and manipulation—we have seen a significant change in direction. Congress, in the Dodd-Frank Act (DFA), not only laid the groundwork for a new regulatory regime, it required minimum standards for mortgages (section 1411), floors for capital at the largest firms (section 171), and enhanced standards for the largest firms (section 115).

16. See e.g., Greenspan, *Testimony*: (. . . those of us who have looked to the self-interest of lending institutions to protect shareholders' equity [myself especially] are in a state of shocked disbelief. Such counterparty surveillance is a central pillar of our financial markets' state of balance. If it fails, as occurred this year, market stability is undermined.).

International regulators have strengthened the capital regimes to establish a leverage ratio (a complete turnaround from the Basel II era), and US regulators have promulgated a supplemental leverage ratio for the largest firms and an FBO (foreign banking organizations) rule that would require the establishment of an intermediate holding company to help ensure that sufficient capital exists to buffer—and potentially resolve—a foreign institution's US operations. These efforts are radical departures from the former paradigm—and positive developments. But five years after the crisis, they have yet to be fully implemented.

That being said, there is some cause for concern too. To compensate for past regulatory shortcomings, the new approach risks becoming too reliant on regulatory discretion and judgment and on micro-management of business activities. Though increased regulatory vigilance and skepticism are welcome, there has been too little focus on writing strong, simple rules that are difficult to game and easy to understand, implement, and enforce, and too much reliance on “stress testing” which, while helpful, is a discretionary process heavily reliant on supervisory judgment. Bank capital rules are a good example, where the regulators continue to rely on highly complex, model-driven formulas which have little, if any, credibility in the market place, especially when there are simpler, readily available alternatives such as strengthened leverage ratios and standardized risk weights. Similarly, the Volcker Rule promises to be highly complex and highly reliant on supervisory judgment.

In general, regulators have not tackled the perverse economic incentives that lie at the heart of many of the problems. For instance, their re-proposal would eviscerate Dodd-Frank's mandate to require mortgage securitizers to maintain “skin in the game,” allowing them to pass along 100 percent of the default risk on securitized mortgages to investors. And they have given insufficient attention to compensation systems that are heavily influenced by short-term ROE (return on equity) and trading profits, which give rise to incentives to take on leverage and proprietary trading profits. Instead, there is significant reliance on examiners to detect and correct for imprudent behaviors (a questionable strategy given the inherent difficulties of megabank management and boards to fully understand and control risk-taking within their organizations). And scant reliance has been placed on increasing market discipline to address excessive risk-taking by, for instance, requiring stronger, more meaningful disclosure of risks in large banks' financial statements and regulatory filings such as the Title 1 mandated “living wills.”

Too big to fail

Consistent with the incentives created by these policies, large institutions became significantly larger and more complex. When markets turned—and instability spread throughout the system—the problem of too-big-to-fail was clearly revealed. During the pre-crisis period, implied government support for the government-sponsored enterprises and large financial institutions diluted market discipline and created strong incentives to take outsized risks with excessive levels of leverage.

Real progress on reform

Significant progress has been made on this problem—but it is not yet resolved. The DFA established a mechanism under Title I to apply consolidated oversight, living will requirements, and enhanced prudential standards on large, complex financial institutions. It also enables the FDIC to resolve potentially systemic entities that cannot be resolved safely in bankruptcy. Though more work is needed (e.g., to establish legal structure simplification and minimum long-term debt requirements to provide additional loss absorbency in a failure) the tools are in place to end too-big-to-fail if the regulators are willing to use them.¹⁷

Some had suggested that the requirements for systemically important financial institutions (SIFIs) would be a “badge of honor,” but the evidence thus far does not support that view as large institution funding costs have widened relative to “small enough to fail” regional banks.

Are clearinghouses the new GSEs?

One area for newfound concern, though, is clearinghouses. While the DFA prohibited one-off bailouts and established the “scarlet letter” Title I SIFI regime, clearinghouses are treated differently. The act’s derivatives provisions substantially increase the amount of transactions that must go through clearinghouses, dramatically raising the size and interconnectedness of these institutions. While this level of size and interconnection should make these firms ripe for oversight under Title I, they

17. See, e.g., the Dodd-Frank Act, Section 165(d)(5), which permits the Federal Reserve Board and the FDIC to jointly impose a host of requirements, including divestiture of certain assets or operations, on institutions that fail to submit resolution plans that credibly facilitate orderly liquidation in bankruptcy.

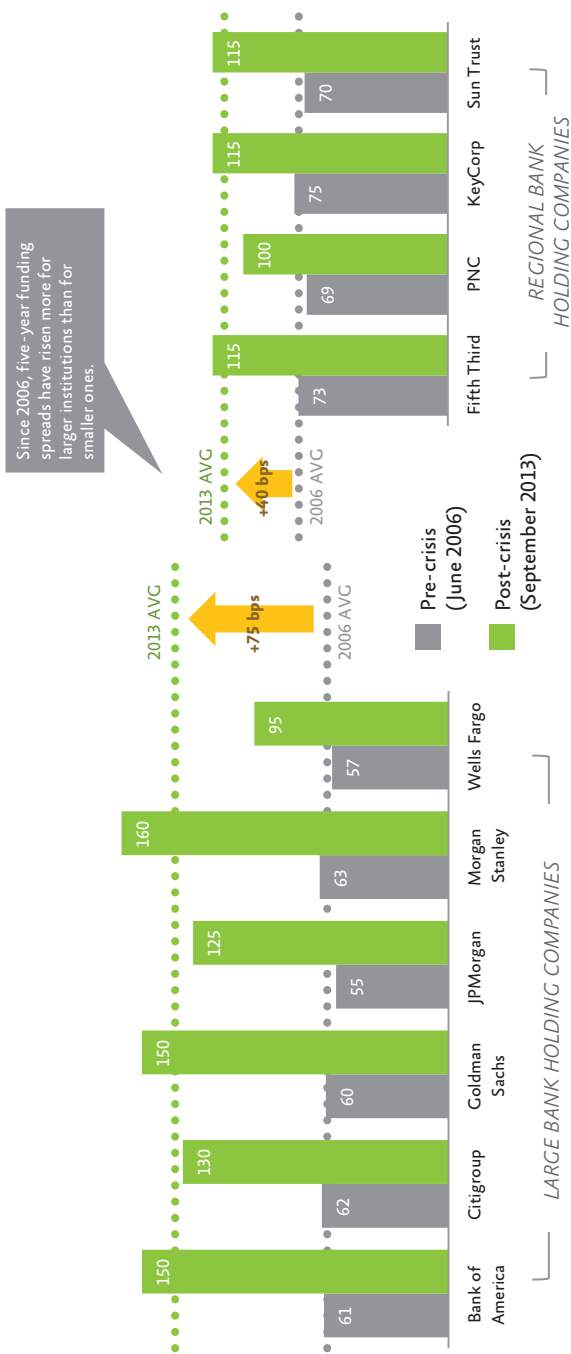


FIGURE 1.11 Large and Regional U.S. Bank Holding Company Five-Year Funding Spreads (Spreads over Treasury Yields)
 Source: Treasury, "The Financial Crisis Five Years Later: Response, Reform, and Progress"

are in fact specifically carved out of Title I¹⁸ and placed under a much weaker Title VIII backstop provision for designated financial market utilities (DFMUs). In addition, while SIFIs receive no benefits from their designation, DFMUs do, thus obtaining access to Federal Reserve Board services and potential emergency lending.¹⁹ When we add to this mix the fact that clearinghouses remain regulated by the chronically underfunded Commodity Futures Trading Commission and Securities and Exchange Commission, we are left with a recipe that is surprisingly similar to the pre-crisis GSEs (government-sponsored enterprises) and Office of Federal Housing Enterprise Oversight (OFHEO): enormous, for-profit, financial institutions that are massively interconnected to a potentially captive market, being regulated by outmanned and underfunded regulators.

In an effort to address instability in the over-the-counter derivatives market by moving most derivatives into central clearing, these policies may be creating new sources of instability from “too-big-to-fail” for-profit clearinghouses that are explicitly designed for government support if they get into trouble. A better solution would be to eliminate their special status as DFMUs and regulate them under Title I.

Conclusion

Governments never learn. Only people learn.

—MILTON FRIEDMAN

Let us hope the dedicated people in charge of our regulatory system this time will learn not just from the immediate past but from the broader past as well. Let us hope in trying to avoid the most recent financial crisis that we also avoid the kinds of mistakes that can lead to new ones. A few principles that might help us move forward, responsibly:

Trust no one, including yourself. This mindset would help us avoid repeating the overly deferential approach of the pre-crisis years without falling into an overly discretionary, command-and-control type of regulatory framework that can dramatically undermine effective management and sound markets.

18. Dodd-Frank Act, Sec. 102(a)(4).

19. *Ibid.*, Sec. 806.

Remember what government and markets do well (and badly). Government is good at establishing and enforcing basic rules of the road that can protect innocent third parties, helping to solve collective action problems, and working to ensure an equal playing field for participants engaging in the same activity. When governments do this, and do it consistently, markets can grow and work.

Governments, however, have a weakness for making exceptions and carve-outs that contribute to complexity and often lead to asymmetries and abuse. They are also terrible at admitting mistakes, setting or determining asset prices, fostering market discipline, and recognizing the inherent difficulties in the consolidated supervision of large, complex financial institutions.

Markets do well at discounting information and setting asset prices. They are also far better at innovating—when they are held accountable for their mistakes and are operating on an equal playing field. When market participants are not accountable for their mistakes (e.g., because of lack of oversight and enforcement or because counterparties and investors are uninformed or mistaken about the dynamics) or when they have artificial advantages (e.g., through capital frameworks, legal carve-outs, or implicit government support), they will take full advantage, and often with leverage.

Focus on strong, simple rules. If policymakers operate with a healthy skepticism of others and themselves, and accept that no person (and no model) can be trusted to predict the future, they are left with two choices: (1) break up financial institutions into sufficiently small discrete parts so that they can compete and fail with minimal externalities; or (2) establish strong, simple rules that (while not perfect) provide a reasonable buffer to account for our uncertainty and are radically easier to understand, implement, and enforce. This approach must be combined with meaningful disclosure of risks being undertaken by large, complex financial institutions so that market discipline can complement regulatory efforts.

Either of these options is superior over time to the “mega-institutions and little oversight” approaches that contributed to the Great Depression and the 2008 Crisis or the “mega-institutions and mega-bureaucracy” command-and-control model that we are risking. The “strong, simple rules and market discipline” approach, however, is far more achievable in the near term. It may be bad for the lawyers, consultants, and compliance

professionals who profit from complexity, but it would be far better for the rest of us.

Solve the underlying problem (and, even then, remain alert). One significant cause of markets and regulatory complexity is policymakers' willingness²⁰ to make ad hoc exceptions and minor "fixes" that over time morph into hyper-complex rules and systems.²¹

Moreover, once a policy is implemented, few things have proven more dangerous than overconfidence. Throughout the crisis we saw markets—and regulators—take steps that they thought were responsible and risk-reducing that turned out to be massively risk-enhancing. Some of these problems (like too-big-to-fail) are particularly difficult to eliminate over time.

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20. We recognize that other factors, particular the policymaking "process," also contribute to this complexity. Prudent policymaking is often hamstrung by a process built for gridlock, small fixes or complexity-creating compromise. Strong, simple solutions are often the most difficult to enact.

21. One need look no further than the evolution of money market fund reform for an example of this phenomenon. Rather than accepting and addressing its "original sin" of permitting a stable net asset value (NAV), we have seen the SEC implement new reform after reform. Over the years it has tightened the scope of eligible securities, reduced maturities, increased disclosure, and strengthened liquidity requirements, among other things. See SEC, "Proposed Rule." Now the agency is considering either (1) "gates and fees" or (2) stable NAV carve-outs for certain investors ("retail") and asset categories ("agencies").

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