Causes of the Financial Crisis

Mark Jickling
Specialist in Financial Economics

January 29, 2009

Congressional Research Service
7-5700
www.crs.gov
R40173

CRS Report for Congress
Prepared for Members and Committees of Congress

Summary

The current financial crisis began in August 2007, when financial stability replaced inflation as the Federal Reserve's chief concern. The roots of the crisis go back much further, and there are various views on the fundamental causes.

It is generally accepted that credit standards in U.S. mortgage lending were relaxed in the early 2000s, and that rising rates of delinquency and foreclosures delivered a sharp shock to a range of U.S. financial institutions. Beyond that point of agreement, however, there are many questions that will be debated by policymakers and academics for decades.

Why did the financial shock from the housing market downturn prove so difficult to contain? Why did the tools the Fed used successfully to limit damage to the financial system from previous shocks (the Asian crises of 1997-1998, the stock market crashes of 1987 and 2000-2001, the junk bond debacle in 1989, the savings and loan crisis, 9/11, and so on) fail to work this time? If we accept that the origins are in the United States, why were so many financial systems around the world swept up in the panic?

To what extent were long-term developments in financial markets to blame for the instability? Derivatives markets, for example, were long described as a way to spread financial risk more efficiently, so that market participants could bear only those risks they understood. Did derivatives, and other risk management techniques, actually increase risk and instability under crisis conditions? Was there too much reliance on computer models of market performance? Did those models reflect only the post-WWII period, which may now come to be viewed not as a typical 60-year period, suitable for use as a baseline for financial forecasts, but rather as an unusually favorable period that may not recur?

Did government actions inadvertently create the conditions for crisis? Did regulators fail to use their authority to prevent excessive risk-taking, or was their jurisdiction too limited and/or compartmentalized?

While some may insist that there is a single cause, and thus a simple remedy, the sheer number of causal factors that have been identified tends to suggest that the current financial situation is not yet fully understood in its full complexity. This report consists of a table that summarizes very briefly some of the arguments for particular causes, presents equally brief rejoinders, and includes a reference or two for further reading. It will be updated as required by market developments.

Introduction

The financial crisis that began in 2007 spread and gathered intensity in 2008, despite the efforts of central banks and regulators to restore calm. By early 2009, the financial system and the global economy appeared to be locked in a descending spiral, and the primary focus of policy became the prevention of a prolonged downturn on the order of the Great Depression.

The volume and variety of negative financial news, and the seeming impotence of policy responses, has raised new questions about the origins of financial crises and the market mechanisms by which they are contained or propagated. Just as the economic impact of financial market failures in the 1930s remains an active academic subject, it is likely that the causes of the current crisis will be debated for decades to come.

This report sets out in tabular form a number of the factors that have been identified as causes of the crisis. The left column of **Table 1** below summarizes the causal role of each such factor. The next column presents a brief rejoinder to that argument. The right-hand column contains a reference for further reading. Where text is given in quotation marks, the reference in the right column is the source, unless otherwise specified.

Table 1. Causes of the Financial Crisis

Cause	Argument	Rejoinder	Additional Reading
Imprudent Mortgage Lending	Against a backdrop of abundant credit, low interest rates, and rising house prices, lending standards were relaxed to the point that many people were able to buy houses they couldn't afford. When prices began to fall and loans started going bad, there was a severe shock to the financial system.	Imprudent lending certainly played a role, but subprime loans (about $1 – 1.5 trillion currently outstanding) were a relatively small part of the overall U.S. mortgage market (about $11 trillion) and of total credit market debt outstanding (about $50 trillion).	CRS Report RL33775, *Alternative Mortgages: Causes and Policy Implications of Troubled Mortgage Resets in the Subprime and Alt-A Markets*, by Edward V. Murphy.
Housing Bubble	With its easy money policies, the Federal Reserve allowed housing prices to rise to unsustainable levels. The crisis was triggered by the bubble bursting, as it was bound to do.	It is difficult to identify a bubble until it bursts, and Fed actions to suppress the bubble may do more damage to the economy than waiting and responding to the effects of the bubble bursting.	CRS Report RL33666, *Asset Bubbles: Economic Effects and Policy Options for the Federal Reserve*, by Marc Labonte.
Global Imbalances	Global financial flows have been characterized in recent years by an unsustainable pattern: some countries (China, Japan, and Germany) run large surpluses every year, while others (like the U.S and U.K.) run deficits. The U.S. external deficits have been mirrored by internal deficits in the household and government sectors. U.S. borrowing cannot continue indefinitely; the resulting stress underlies current financial disruptions.	None of the adjustments that would reverse the fundamental imbalances has yet occurred. That is, there has not been a sharp fall in the dollar's exchange value, and U.S. deficits persist.	Lorenzo Bini Smaghi, "The financial crisis and global imbalances – two sides of the same coin," Speech at the Asia Europe Economic Forum, Beijing, Dec. 9, 2008. http://www.bis.org/review/r081212d.pdf
Securitization	Securitization fostered the "originate-to-distribute" model, which reduced lenders' incentives to be prudent, especially in the face of vast investor demand for subprime loans packaged as AAA bonds. Ownership of mortgage-backed securities was widely dispersed, causing repercussions throughout the global system when subprime loans went bad in 2007.	Mortgage loans that were not securitized, but kept on the originating lender's books, have also done poorly.	Statement of Alan Greenspan before the House Committee on Oversight and Government Reform, October 23, 2008 ("The breakdown has been most apparent in the securitization of home mortgages.")

Cause	Argument	Rejoinder	Additional Reading
Lack of Transparency and Accountability in Mortgage Finance	"Throughout the housing finance value chain, many participants contributed to the creation of bad mortgages and the selling of bad securities, apparently feeling secure that they would not be held accountable for their actions. A lender could sell exotic mortgages to home-owners, apparently without fear of repercussions if those mortgages failed. Similarly, a trader could sell toxic securities to investors, apparently without fear of personal responsibility if those contracts failed. And so it was for brokers, realtors, individuals in rating agencies, and other market participants, each maximizing his or her own gain and passing problems on down the line until the system itself collapsed. Because of the lack of participant accountability, the originate-to-distribute model of mortgage finance, with its once great promise of managing risk, became itself a massive generator of risk."	Many contractual arrangements did provide recourse against sellers or issuers of bad mortgages or related securities. Many non-bank mortgage lenders failed because they were forced to take back loans that defaulted, and many lawsuits have been filed against MBS issuers and others.	Statement of the Honorable John W. Snow before the House Committee on Oversight and Government Reform, October 23, 2008
Rating Agencies	The credit rating agencies gave AAA ratings to numerous issues of subprime mortgage-backed securities, many of which were subsequently downgraded to junk status. Critics cite poor economic models, conflicts of interest, and lack of effective regulation as reasons for the rating agencies' failure. Another factor is the market's excessive reliance on ratings, which has been reinforced by numerous laws and regulations that use ratings as a criterion for permissible investments or as a factor in required capital levels.	All market participants underestimated risk, not just the rating agencies. Purchasers of MBS were mainly sophisticated institutional investors, who should have done their own due diligence investigations into the quality of the instruments.	Securities and Exchange Commission, "SEC Approves Measures to Strengthen Oversight of Credit Rating Agencies," press release 2008-284, Dec. 3, 2008.
Mark-to-market Accounting	FASB standards require institutions to report the fair (or current market) value of securities they hold. Critics of the rule argue that this forces banks to recognize losses based on "fire sale" prices that prevail in distressed markets, prices believed to be below long-term fundamental values. Those losses undermine market confidence and exacerbate banking system problems. Some propose suspending mark-to-market; EESA requires a study of its impact.	Many view uncertainty regarding financial institutions' true condition as key to the crisis. If accounting standards—however imperfect—are relaxed, fears that published balance sheets are unreliable will grow.	"Understanding the Mark-to-market Meltdown," *Euromoney*, Mar. 2008.

Cause	Argument	Rejoinder	Additional Reading
Deregulatory Legislation	Laws such as the Gramm-Leach-Bliley Act (GLBA) and the Commodity Futures Modernization Act (CFMA) permitted financial institutions to engage in unregulated risky transactions on a vast scale. The laws were driven by an excessive faith in the robustness of market discipline, or self-regulation.	GLBA and CFMA did not permit the creation of unregulated markets and activities; they simply codified existing markets and practices. ("There is this idea afloat that if you had more regulation you would have fewer mistakes," [Gramm] said. "I don't see any evidence in our history or anybody else's to substantiate it." Eric Lipton and Stephen Labaton, "The Reckoning: Deregulator Looks Back, Unswayed," *New York Times*, Nov. 16, 2008.)	Anthony Faiola, Ellen Nakashima, and Jill Drew, "What Went Wrong?" *Washington Post*, Oct. 15, 2008, p. A1.
Shadow Banking System	Risky financial activities once confined to regulated banks (use of leverage, borrowing short-term to lend long,, etc.) migrated outside the explicit government safety net provided by deposit insurance and safety and soundness regulation. Mortgage lending, in particular, moved out of banks into unregulated institutions. This unsupervised risk-taking amounted to a financial house of cards.	Regulated banks—the recipients of most of the $700 billion Treasury TARP program—have not really fared much better than investment banks, hedge funds, OTC derivatives dealers, private equity firms, et al.	Nouriel Roubini, "The Shadow Banking System is Unravelling," *Financial Times*, Sep. 22, 2008, p. 9.
Non-Bank Runs	As institutions outside the banking system built up financial positions built on borrowing short and lending long, they became vulnerable to liquidity risk in the form of non-bank runs. That is, they could fail if markets lost confidence and refused to extend or roll over short-term credit, as happened to Bear Stearns and others.	Liquidity risk was always present, and recognized, but its appearance at the extreme levels of the current crisis was not foreseeable.	Krishna Guha, "Bundesbank Chief Says Credit Crisis Has Hallmarks of Classic Bank Run," *Financial Times*, Sep. 3, 2007, p. 1.
Off-Balance Sheet Finance	Many banks established off-the-books special purpose entities (including structured investment vehicles, or SIVs) to engage in risky speculative investments. This allowed banks to make more loans during the expansion, but also created contingent liabilities that, with the onset of the crisis, reduced market confidence in the banks' creditworthiness. At the same time, they had allowed banks to hold less capital against potential losses. Investors had little ability to understand banks' true financial positions.	Beginning in the 1990s, bank supervisors actually encouraged off-balance sheet finance as a legitimate way to manage risk.	Adrian Blundell-Wignall, "Structured Products: Implications for Financial Markets," *Financial Market Trends*, Nov. 2007, p. 27.
Government-Mandated Subprime Lending	Federal mandates to help low-income borrowers (e.g., the Community Reinvestment Act (CRA) and Fannie Mae and Freddie Mac's affordable housing goals) forced banks to engage in imprudent mortgage lending.	The subprime mortgage boom was led by non-bank lenders (not subject to CRA) and securitized by private investment banks rather than the GSEs.	Lawrence H. White, "How Did We Get into This Financial Mess?" Cato Institute Briefing Paper no. 110, Nov. 18, 2008.

Cause	Argument	Rejoinder	Additional Reading
Failure of Risk Management Systems	Some firms separated analysis of market risk and credit risk. This division did not work for complex structured products, where those risks were indistinguishable. "Collective common sense suffered as a result."	Senior management's responsibility has always been to bridge this kind of gap in risk assessment.	"Confessions of a Risk Manager; A Personal View of the Crisis," *The Economist*, Aug. 9, 2008.
Financial Innovation	New instruments in structured finance developed so rapidly that market infrastructure and systems were not prepared when those instruments came under stress. Some propose that markets in new instruments should be given time to mature before they are permitted to attain a systemically-significant size. This means giving accountants, regulators, ratings agencies, and settlement systems time to catch up.	In a global marketplace, innovation will continue and national regulators' attempts to restrain it will only put their countries' markets at a competitive disadvantage. Moreover, it is hard to tell in advance whether innovations will stabilize the system or the reverse.	Joseph R. Mason, "The Summer of '07 and the Shortcomings of Financial Innovation," *Journal of Applied Finance*, vol. 18, Spring 2008, p. 8.
Complexity	The complexity of certain financial instruments at the heart of the crisis had three effects: (1) investors were unable to make independent judgments on the merits of investments, (2) risks of market transactions were obscured, and (3) regulators were baffled.	Standard economic theory assumes that investors act rationally in their own self-interest, which implies that they should only take risks they understand.	Lee Buchheit, "We Made It Too Complicated," *International Financial Law Review*, Mar. 2008.
Human Frailty	Behavioral finance posits that investors do not always make optimal choices: they suffer from "bounded rationality" and limited self-control. Regulators ought to help people manage complexity through better disclosure and by reinforcing financial prudence.	Since regulators are just as human as investors, how can they consistently recognize that behavior has become suboptimal and that markets are headed for a crash?	Cass Sunstein and Richard Thaler, "Human Frailty Caused This Crisis," *Financial Times*, Nov. 12, 2008.
Bad Computer Models	Expectations of the performance of complex structured products linked to mortgages were based on only a few decades worth of data. In the case of subprime loans, only a few years of data were available. "[C]omplex systems are not confined to historical experience. Events of any size are possible, and limited only by the scale of the system itself."	Blaming models and the "quants" who designed them mistakes a symptom for a cause—"garbage in, garbage out."	James G. Rickards, "A Mountain, Overlooked: How Risk Models Failed Wall St. and Washington, "*Washington Post*, Oct. 2, 2008, p. A23.
Excessive Leverage	In the post-2000 period of low interest rates and abundant capital, fixed income yields were low. To compensate, many investors used borrowed funds to boost the return on their capital. Excessive leverage magnified the impact of the housing downturn, and deleveraging caused the interbank credit market to tighten.	Leverage is only a symptom of the underlying problem: mispricing of risk and a credit bubble.	Timothy F. Geithner, "Systemic Risk and Financial Markets," Testimony before the House Committee on Financial Services, July 24, 2008.

Cause	Argument	Rejoinder	Additional Reading
Relaxed Regulation of Leverage	The SEC liberalized its net capital rule in 2004, allowing investment bank holding companies to attain very high leverage ratios. Its Consolidated Supervised Entities program, which applied to the largest investment banks, was voluntary and ineffective.	The net capital rule applied only to the regulated broker/dealer unit; the SEC never had statutory authority to limit leverage at the holding company level.	Stephen Labaton, "Agency's '04 Rule Let Banks Pile Up New Debt, and Risk," *New York Times*, Oct. 3, 2008, p. A1, and Testimony of SEC Chairman Christopher Cox, House Oversight and Government Reform Committee, Oct. 23, 2008. (Response to question from Rep. Christopher Shays.)
Credit Default Swaps (CDS)	"An interesting paradox arose, however, as credit derivatives instruments, developed initially for risk management, continued to grow and become more sophisticated with the help of financial engineering, the tail began wagging the dog. In becoming a medium for speculative transactions, credit derivatives increased, rather than alleviated, risk."	Speculation in derivatives generally makes prices of the underlying commodities more stable. We do not know why this relationship sometimes breaks down. Even in CDS, the feared "explosion" of defaults has not happened, albeit the expensive rescue of AIG may have prevented such an event.	Jongho Kim, "From Vanilla Swaps to Exotic Credit Derivatives," *Fordham Journal of Corporate & Financial Law*, Vol. 13, No. 5 (2008), p. 705.
Over-the-Counter Derivatives	Because OTC derivatives (including credit swaps) are largely unregulated, limited information about risk exposures is available to regulators and market participants. This helps explain the Bear Stearns and AIG interventions: in addition to substantial losses to counterparties, a dealer default could trigger panic because of uncertainty about the extent and distribution of those losses.	The largest OTC markets—interest rate and currency swaps—appear to have held up fairly well.	Walter Lukken, "How to Solve the Derivatives Problem," *Wall Street Journal*, Oct. 10, 2008, p. A15.
Fragmented Regulation	U.S. financial regulation is dispersed among many agencies, each with responsibility for a particular class of financial institution. As a result, no agency is well-positioned to monitor emerging system-wide problems.	Countries with unified regulatory structures, such as Japan and the UK, have not avoided the crisis.	U.S. Treasury, *Blueprint for a Modernized Financial Regulatory Structure*, Apr. 2008.
No Systemic Risk Regulator	No regulator had comprehensive jurisdiction over all systemically-important financial institutions. (The Fed had the role of systemic risk regulator by default, but lacked authority to oversee investment banks, hedge funds, nonbank derivatives dealers, etc.)	Some question whether the problem was lack of authority or failure to use existing regulatory powers effectively.	Henry Kaufman, "Finance's Upper Tier Needs Closer Scrutiny," *Financial Times*, Apr. 21, 2008, p. 13.
Short-term Incentives	Since traders and managers at many financial institutions receive a large part of their compensation in the form of an annual bonus, they lack incentives to avoid risky strategies liable to fail spectacularly every five or ten years. Some propose to link pay to a rolling average of firm profits or to put bonuses into escrow for a certain period, or to impose higher capital charges on banks that maintain current annual bonus practices.	Shareholders already have incentives and authority to monitor corporate compensation structures and levels.	Andrew Ross Sorkin, "Rein in Chief's Pay? It's Doable," *New York Times*, Nov. 3, 2008.

Cause	Argument	Rejoinder	Additional Reading
Tail Risk	Many investors and risk managers sought to boost their returns by providing insurance or writing options against low-probability financial events. (Credit default swaps are a good example, but by no means the only one.) These strategies generate a stream of small gains under normal market conditions, but cause large losses during crises. When market participants know that many such potential losses are distributed throughout the system (but do not know exactly where, or how large), uncertainty and fear are exacerbated when markets come under stress.	Dispersal of systematic risk via financial innovation was believed to make the financial system more resilient to shocks.	Raghuram Rajan, "A Tale of Two Liquidities," Remarks at the University of Chicago Graduate School of Business, Dec. 5, 2007, online at http://www.chicagogsb.edu/news/12-5-07_Rajan.pdf.
Black Swan Theory	This crisis is a once-in-a-century event, caused by a confluence of factors so rare that it is impractical to think of erecting regulatory barriers against recurrences. According to Alan Greenspan, such regulation would be "so onerous as to basically suppress the growth rate of the economy and ... [U.S.] standards of living." Testimony before the House Oversight and Government Reform Committee, Oct. 23, 2008.	"Some might be tempted to see recent events in the financial markets as just such black swans. But this would be quite wrong, in our view. Many of the flaws that have led to current turbulent conditions have not ridden on the back of a black swan. Instead, they are the result of weaknesses and failings in the interpretation of risk analysis and the process of oversight." (Booth and Mazzawi)	Geoff Booth and Elias Mazzawi, "Black Swan or Fat Turkey?" *Business Strategy Review*, vol. 19, Autumn 2008, p. 34. Also: Michael J. Boskin, "Our Next President and the Perfect Economic Storm," *Wall Street Journal*, Oct. 23, 2008, p. A17.

Source: Table Compiled by CRS.

Note: Passages in quotation marks are from the source cited in the right-hand column, unless otherwise noted.

Author Contact Information

Mark Jickling
Specialist in Financial Economics
mjickling@crs.loc.gov, 7-7784