

GAO

Testimony

Before the Subcommittee on Oversight
and Investigations, Committee on
Financial Services, House of
Representatives

For Release on Delivery
Expected at 10:00 a.m. EDT
Thursday, May 6, 2010

FINANCIAL MARKETS REGULATION

Financial Crisis Highlights Need to Improve Oversight of Leverage at Financial Institutions and across System

Statement of Orice Williams Brown, Director
Financial Markets and Community Investment



GAO

Accountability * Integrity * Reliability



Highlights of [GAO-10-555T](#), a report to Subcommittee on Oversight and Investigations, House Committee on Financial Services

Why GAO Did This Study

In 2009 GAO conducted a study on the role of leverage in the recent financial crisis and federal oversight of leverage, as mandated by the Emergency Economic Stabilization Act. This testimony presents the results of that study, and discusses (1) how leveraging and deleveraging by financial institutions may have contributed to the crisis, (2) how federal financial regulators limit the buildup of leverage; and (3) the limitations the crisis has revealed in regulatory approaches used to restrict leverage and regulatory proposals to address them.

To meet these objectives, GAO built on its existing body of work, reviewed relevant laws and regulations and academic and other studies, and interviewed regulators and market participants.

What GAO Recommends

As Congress considers establishing a systemic risk regulator, it should consider the merits of assigning such a regulator with responsibility for overseeing systemwide leverage. As U.S. regulators continue to consider reforms to strengthen oversight of leverage, we recommend that they assess the extent to which reforms under Basel II, a new risk-based capital framework, will address risk evaluation and regulatory oversight concerns associated with advanced modeling approaches used for capital adequacy purposes. In their written comments, the regulators generally agreed with GAO's conclusions and recommendation.

View [GAO-10-555T](#) or key components. For more information, contact Orice Williams Brown at (202) 512-8678 or williamso@gao.gov.

FINANCIAL MARKETS REGULATION

Financial Crisis Highlights Need to Improve Oversight of Leverage at Financial Institutions and across System

What GAO Found

Some studies suggested that leverage steadily increased in the financial sector before the crisis began in mid-2007 and created vulnerabilities that have increased the severity of the crisis. In addition, subsequent disorderly deleveraging by financial institutions may have compounded the crisis. First, the studies suggested that the efforts taken by financial institutions to deleverage by selling financial assets could cause prices to spiral downward during times of market stress and exacerbate a financial crisis. Second, the studies suggested that deleveraging by restricting new lending could slow economic growth. However, other theories also provide possible explanations for the sharp price declines observed in certain assets. As the crisis is complex, no single theory is likely to fully explain what occurred or rule out other explanations. Regulators and market participants we interviewed had mixed views about the effects of deleveraging. Some officials told us that they generally have not seen asset sales leading to downward price spirals, but others said that asset sales have led to such spirals.

Federal regulators impose capital and other requirements on their regulated institutions to limit leverage and ensure financial stability. Federal bank regulators impose minimum risk-based capital and leverage ratios on banks and thrifts and supervise the capital adequacy of such firms through on-site examinations and off-site monitoring. Bank holding companies are subject to similar capital requirements as banks, but capital levels of thrift holding companies are individually evaluated based on each company's risk profile. The Securities and Exchange Commission uses its net capital rule to limit broker-dealer leverage and used to require certain broker-dealer holding companies to report risk-based capital ratios and meet certain liquidity requirements. Other important market participants, such as hedge funds, also use leverage. Hedge funds typically are not subject to regulatory capital requirements, but market discipline, supplemented by regulatory oversight of institutions that transact with them, can serve to constrain their leverage.

The crisis has revealed limitations in regulatory approaches used to restrict leverage. First, regulatory capital measures did not always fully capture certain risks, which resulted in some institutions not holding capital commensurate with their risks and facing capital shortfalls when the crisis began. Federal regulators have called for reforms, including through international efforts to revise the Basel II capital framework. The planned U.S. implementation of Basel II would increase reliance on risk models for determining capital needs for certain large institutions. The crisis underscored concerns about the use of such models for determining capital adequacy, but regulators have not assessed whether proposed Basel II reforms will address these concerns. Such an assessment is critical to ensure that changes to the regulatory framework address the limitations the crisis had revealed. Second, regulators face challenges in counteracting cyclical leverage trends and are working on reform proposals. Finally, the crisis has revealed that with multiple regulators responsible for individual markets or institutions, none has clear responsibility to assess the potential effects of the buildup of systemwide leverage or the collective effect of institutions' deleveraging activities.

Chairman Moore, Ranking Member Biggert, and Members of the Subcommittee:

I appreciate the opportunity to participate in today's hearing to discuss debt and leverage in financial markets in the context of the recent financial crisis. As you know, the buildup of leverage during a market expansion and the rush to reduce leverage, or "deleverage," when market conditions deteriorated was common to the recent and prior financial crises. Leverage traditionally has referred to the use of debt, instead of equity, to fund an asset and has been measured by the ratio of total assets to equity on the balance sheet. But as witnessed in the recent crisis, leverage also can be used to increase an exposure to a financial asset without using debt, such as by using derivatives.¹ In that regard, leverage can be defined broadly as the ratio between some measure of risk exposure and capital that can be used to absorb unexpected losses from the exposure.² However, because leverage can be achieved through many different strategies, no single measure can capture all aspects of leverage. Federal financial regulators are responsible for establishing regulations that restrict the use of leverage by financial institutions under their authority and supervising their institutions' compliance with such regulations.

My statement today is based on our July 2009 report on the role of leverage and deleveraging by financial institutions in the recent crisis and federal oversight of leverage.³ We completed this work in response to a mandate contained in section 117 of the Emergency Economic Stabilization Act of 2008.⁴ Specifically, I will discuss (1) how leveraging and deleveraging by financial institutions may have contributed to the

¹Derivatives are financial products whose value is determined from an underlying reference rate (interest rates, foreign currency exchange rates); an index (that reflects the collective value of various financial products); or an asset (stocks, bonds, and commodities). Derivatives can be traded through central locations, called exchanges, where buyers and sellers, or their representatives, meet to determine prices; or privately negotiated by the parties off the exchanges or over the counter (OTC).

²Capital generally is defined as a firm's long-term source of funding, contributed largely by a firm's equity stockholders and its own returns in the form of retained earnings. One important function of capital is to absorb losses.

³GAO, *Financial Regulation: Financial Crisis Highlights Need to Improve Oversight of Leverage at Financial Institutions and across System*, [GAO-09-739](#) (Washington, D.C.: July 22, 2009).

⁴12 U.S.C. § 5227.

crisis; (2) how federal financial regulators limit the buildup of leverage; and (3) the limitations the crisis has revealed in regulatory approaches to restrict leverage and regulatory proposals to address them.

To address our objectives, we reviewed and analyzed (1) academic and other studies assessing the buildup of leverage prior to the recent financial crisis and the economic mechanisms that possibly helped the mortgage-related losses spread to other markets and expand into the recent crisis; (2) relevant laws and regulations, and other regulatory guidance and materials, related to the oversight of financial institutions' use of leverage by the Federal Reserve, Federal Deposit Insurance Corporation (FDIC), Office of the Comptroller of the Currency (OCC), Office of Thrift Supervision (OTS), and Securities and Exchange Commission (SEC); and (3) various data to illustrate leverage and other relevant trends. We assessed the reliability of the data and found that they were sufficiently reliable for our purposes. We also reviewed and analyzed studies done by U.S. and international regulators and others identifying limitations in the regulatory framework used to restrict leverage and proposals to address such limitations. Finally, we reviewed prior GAO work on the financial regulatory system. In addition, we interviewed staff from these federal financial regulators and officials from two securities firms, a bank, and a credit rating agency.

We conducted our work between February and July 2009 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Summary

The causes of the recent financial crisis remain subject to debate and additional research. Nevertheless, some researchers and regulators have suggested that the buildup of leverage before the financial crisis and subsequent disorderly deleveraging have compounded the recent financial crisis. In particular, some studies suggested that the efforts taken by financial institutions to deleverage by selling financial assets could lead to a downward price spiral in times of market stress and exacerbate a financial crisis. However, alternative theories provide possible explanations; for example, the drop in asset prices may reflect prices reverting to more reasonable levels after a period of overvaluation or it may reflect uncertainty surrounding the true value of the assets. In

addition, deleveraging by restricting new lending could slow economic growth and thereby contribute to a financial crisis.

Federal financial regulators impose capital and other requirements such as leverage measures on their regulated institutions to limit leverage and ensure financial stability. Federal banking regulators impose minimum risk-based capital and leverage ratios on banks and thrifts and supervise the capital adequacy of such firms through on-site examinations and off-site monitoring. Bank holding companies are subject to similar capital requirements as banks, but thrift holding companies are not. Capital levels of thrift holding companies are individually evaluated based on each company's risk profile. SEC uses its net capital rule to limit broker-dealer leverage. Other important market participants, such as hedge funds, also use leverage. Hedge funds typically are not subject to regulatory capital requirements, but market discipline, supplemented by regulatory oversight of institutions that transact with them, can serve to constrain their leverage.

The crisis has revealed limitations in the financial regulatory capital framework's ability to restrict leverage and to mitigate crisis. First, regulatory capital measures did not always fully capture certain risks. As a result, these institutions did not hold capital commensurate with their risks and some faced capital shortfalls when the crisis began. Federal regulators have called for reforms, including international efforts to revise the Basel II capital framework. The planned U.S. implementation of Basel II would increase reliance on risk models for determining capital needs for certain large institutions. The crisis underscored concerns about the use of such models for determining capital adequacy, but regulators have not assessed whether proposed Basel II reforms will address these concerns. Such an assessment is critical to help ensure that changes to the regulatory framework address the limitations revealed by the recent crisis. Second, regulators face challenges in counteracting cyclical leverage trends. Finally, with multiple regulators responsible for individual markets or institutions, none has clear responsibility to assess the potential effects of the buildup of systemwide leverage or the collective effects of institutions' deleveraging activities.

Background

Many financial institutions use leverage to expand their ability to invest or trade in financial assets and to increase their return on equity. A firm can use leverage through a number of strategies, including by using debt to finance an asset or entering into derivatives. Greater financial leverage, as measured by lower proportions of capital relative to assets, can increase

the firm's market risk, because leverage magnifies gains and losses relative to equity. Leverage also can increase a firm's liquidity risk, because a leveraged firm may be forced to sell assets under adverse market conditions to reduce its exposure. Although commonly used as a leverage measure, the ratio of assets to equity captures only on-balance sheet assets and treats all assets as equally risky. Moreover, the ratio of assets to equity helps to measure the extent to which a change in total assets would affect equity but provides no information on the probability of such a change occurring. Finally, a leveraged position may not be more risky than a non-leveraged position, when other aspects of the position are not equal. For example, a non-leveraged position in a highly risky asset could be more risky than a leveraged position in a low risk asset.

During the 1980s, banking regulators became concerned that simple leverage measures—such as the ratio of assets to equity or debt to equity—required too much capital for less-risky assets and not enough for riskier assets and that such measures did not require capital for growing portfolios of off-balance sheet items. In response to these concerns, the Basel Committee on Banking Supervision adopted Basel I, an international framework for risk-based capital that required banks to meet minimum risk-based capital ratios, in 1988.⁵ By 1992, U.S. regulators had fully implemented Basel I; and in 1996, they and supervisors from other Basel Committee member countries amended the framework to include explicit capital requirements for market risk from trading activity (called the Market Risk Amendment).⁶ In response to the views of bankers and many regulators that innovation in financial markets and advances in risk management have revealed limitations in the existing Basel I risk-based capital framework, especially for large, complex banks, the Basel Committee released the Basel II international accord in 2004.⁷ Since then,

⁵The Basel Committee on Banking Supervision (Basel Committee) seeks to improve the quality of banking supervision worldwide, in part by developing broad supervisory standards. The Basel Committee consists of central bank and regulatory officials from Argentina, Australia, Belgium, Brazil, Canada, China, France, Germany, Hong Kong SAR, India, Indonesia, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The Basel Committee's supervisory standards are also often adopted by nonmember countries.

⁶According to Office of Thrift Supervision (OTS) staff, OTS did not adopt the capital requirements for trading book market risk.

⁷For more information about the limitations of Basel I and the three pillars of Basel II, see [GAO-09-739](#).

individual countries have been implementing national rules based on the principles and detailed framework. In a prior report, we discussed the status of efforts by U.S. regulators to implement the Basel II accord.⁸

Research Suggests Leverage Increased before the Crisis and Subsequent Deleveraging Could Have Contributed to the Crisis

Studies we reviewed suggest that leverage within the financial sector increased before the crisis and that subsequent deleveraging by financial institutions could have contributed to the recent crisis. The causes of the recent financial crisis are complex and multifaceted and remain subject to debate and ongoing research. Given our mandate, our review of the economic literature focused narrowly on deleveraging as one of the potential economic mechanisms contributing to the crisis. The studies we reviewed do not provide definitive findings about the role of deleveraging relative to other mechanisms, and we relied on our interpretation and reasoning to develop insights from the studies we reviewed.

Leverage within the Financial Sector Increased before the Financial Crisis, and Financial Institutions Sought to Deleverage When the Crisis Began

Leverage steadily increased in the financial sector before the crisis began around mid-2007 and created vulnerabilities that increased the severity of the crisis, according to studies we reviewed.⁹ As mentioned earlier, leverage can take many different forms, and no single measure of leverage exists. In that regard, the studies we reviewed generally identified a range of sources that aided in the buildup of leverage before the crisis. One such source was the reliance on short-term funding by financial institutions, which made them vulnerable to a decline in the availability of such credit. Another source of leverage was special purpose entities (SPE), which some banks created to buy and hold mortgage-related and other assets that the banks did not want to hold on their balance sheets. SPEs often borrowed by issuing shorter-term instruments, exposing them to the risk

⁸GAO, *Risk-Based Capital: New Basel II Rules Reduced Certain Competitive Concerns, but Bank Regulators Should Address Remaining Uncertainties*, [GAO-08-953](#) (Washington, D.C.: Sept. 12, 2008).

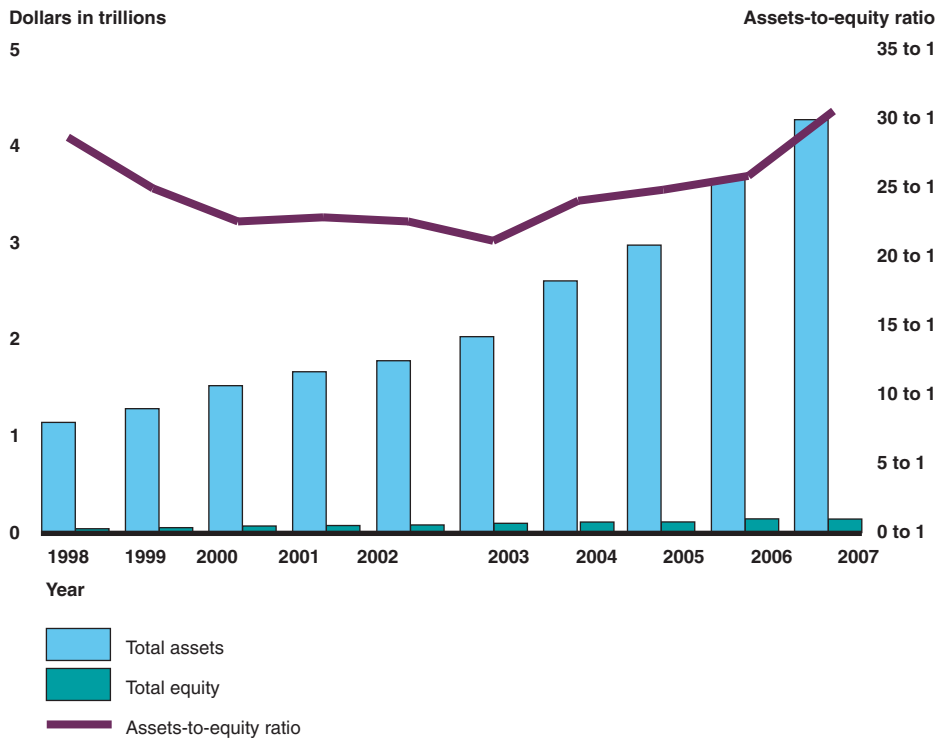
⁹See, for example, Financial Services Authority, *The Turner Review: A Regulatory Response to the Global Banking Crisis* (London: March 2009); Willem H. Buiter, "Lessons from the North Atlantic Financial Crisis," paper prepared for presentation at the conference "The Role of Money Markets," jointly organized by Columbia Business School and the Federal Reserve Bank of New York on May 29-30, 2008 (May 2008); Martin Neil Baily, Robert E. Litan, and Matthew S. Johnson, "The Origins of the Financial Crisis," *Fixing Finance Series-Paper 3*, (Washington, D.C.: The Brookings Institution, November 2008); and Ben Cohen and Eli Remolona, "The Unfolding Turmoil of 2007–2008: Lessons and Responses," *Proceedings of a Conference*, Sydney, Australia, Reserve Bank of Australia, Sydney.

of not being able to renew their debt. Other sources of leverage included collateralized debt obligations (CDOs) and credit default swaps, a type of OTC derivative.¹⁰ For securities firms, hedge funds, and other financial intermediaries that operate mainly through the capital markets, their balance sheet leverage, or ratio of total assets to equity, tends to be procyclical.¹¹ Historically, such institutions tended to increase their leverage when asset prices rose and decrease their leverage when asset prices fell. Consistent with this trend, the ratio of assets to equity for five large broker-dealer holding companies, in aggregate, increased from an average ratio of around 22 to 1 in 2002 to around 30 to 1 in 2007 (see fig. 1).

¹⁰In a basic collateralized-debt obligation (CDO), a group of debt securities are pooled, and securities are then issued in different tranches (or slices) that vary in risk and return. Through pooling and slicing, CDOs can give investors an embedded leveraged exposure. For a discussion of embedded leverage in CDOs, see The Joint Forum, Credit Risk Transfer, Basel Committee on Banking Supervision (Basel, Switzerland: October 2004).

¹¹We use the term “securities firms” generally to refer to the holding companies of broker-dealers.

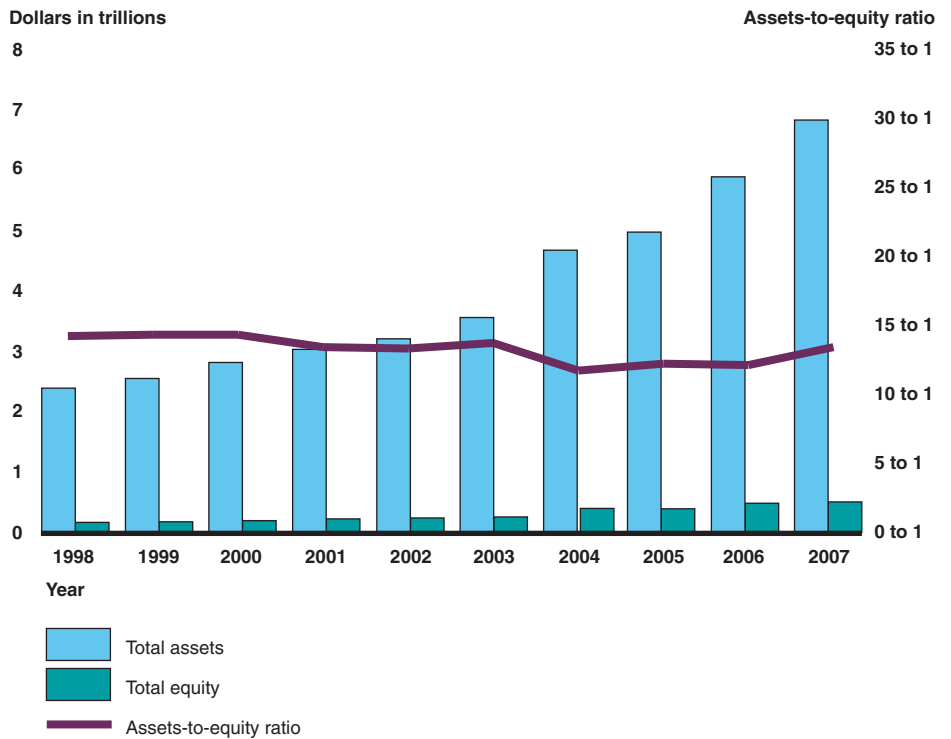
Figure 1: Total Assets, Total Equity, and Leverage (Asset-to-Equity) Ratio in Aggregate for Five Large U.S. Broker-Dealer Holding Companies, 1998 to 2007



Source: GAO analysis of annual report data for Bear Stearns, Goldman Sachs, Lehman Brothers, Merrill Lynch, and Morgan Stanley.

In contrast, the ratio of assets to equity for five large bank holding companies, in aggregate, was relatively flat during this period (see fig. 2). As discussed in the background, the ratio of assets to equity as a measure of leverage treats all assets as equally risky and does not capture off-balance sheet risks.

Figure 2: Total Assets, Total Equity, and Assets-to-Equity Ratio in Aggregate for Five Large U.S. Bank Holding Companies, 1998 to 2007



Source: GAO analysis of annual report and Federal Reserve Y-9C data for Bank of America, Citigroup, JPMorgan Chase, Wachovia, and Wells Fargo.

As their mortgage-related and other losses grew after the onset of the crisis, banks, securities firms, hedge funds, and other financial institutions have attempted to deleverage and reduce their risk. Deleveraging can cover a range of strategies, including raising new equity, reducing dividend payouts, diversifying sources of funds, selling assets, and reducing lending. After the crisis began, U.S. banks and securities firms initially deleveraged by raising more than \$200 billion in new capital from private sources and sovereign wealth funds.¹² However, raising capital began to be increasingly difficult in the subsequent period, and financial institutions have deleveraged by selling assets, including financial instruments and noncore businesses. For example, in the fourth quarter of 2008, broker-dealers

¹²Sovereign wealth funds generally are pools of government funds invested in assets in other countries.

reduced assets by nearly \$785 billion and banks reduced bank credit by nearly \$84 billion.

Some Studies Suggested That Deleveraging by Financial Institutions by Selling Financial Assets and Restricting New Lending Could Have Contributed to the Crisis

Some studies we reviewed highlighted the possibility that deleveraging through asset sales by financial institutions could trigger downward spirals in asset prices and contribute to a financial crisis.¹³ In times of market stress, a sharp decline in an asset's price can become self-sustaining and lead to a financial market crisis. Following a sharp decline in an asset's price, investors normally will buy the asset after they deem its price has dropped enough and help stabilize the market, but in times of crisis, investors are unable or unwilling to buy the asset. As the asset's price declines, more investors sell and push the price lower. For leveraged institutions holding the asset, the impact of their losses on capital will be magnified. To lower their leverage or risk, the institutions may sell more of their assets, which can cause the asset's price to drop even more and induce another round of selling. In other words, when market liquidity is low, namely in times of market stress, asset sales establish lower market prices and result in financial institutions marking down their positions—potentially creating a reinforcing cycle of deleveraging. In the extreme, this downward asset spiral could cause the asset's price to be set below its fundamental value, or at a “fire sale” price. In addition, a decline in a financial asset's price could trigger sales when the asset is used as collateral for a loan. In such a case, the borrower could be required to post additional collateral for its loan, but if the borrower could not do so, the lender could take ownership of the collateral and then sell it, which could cause the asset's price to decline further.

Importantly, other theories that do not involve asset spirals caused by deleveraging through asset sales provide possible explanations for the sharp price declines in mortgage-related securities and other financial instruments. Moreover, as the crisis is complex, no single theory likely is to explain in full what occurred or necessarily rule out other explanations. First, given the default characteristics of the mortgages underlying their related securities and falling housing prices, low market prices may result

¹³See, for example, Markus K. Brunnermeier, “Deciphering the 2007-08 Liquidity and Credit Crunch,” *Journal of Economic Perspectives* 23, no. 1 (2009), pp. 77-100; Greenlaw et al. (2008); and Anil K., Kashyap, Raghuram G. Rajan, and Jeremy C. Stein, “Rethinking Capital Regulation,” paper prepared for Federal Reserve Bank of Kansas City symposium on “Maintaining Stability in a Changing Financial System,” Jackson Hole, Wyoming, August 21-23, 2008 (September 2008).

from asset prices reverting to more reasonable values after a period of overvaluation. Second, the low prices of mortgage-related securities and other financial instruments may have resulted from the uncertainty surrounding their true value. This theory holds that investors may lack the information needed to distinguish between the good and bad securities and, as a result, discount the prices of the good securities.¹⁴ These two theories and the deleveraging hypothesis may provide some insight into how the financial crisis has unfolded and are not mutually exclusive. Nonetheless, at this juncture, it is difficult to determine whether a return to fundamentals, uncertainty, or forced asset sales played a larger causal role.

In addition, some studies we reviewed suggested that deleveraging by restricting new lending could contribute to the crisis by slowing economic growth. In short, the concern is that banks, because of their leverage, will need to cut back their lending by a multiple of their credit losses to restore their balance sheets or capital-to-asset ratios. The contraction in bank lending can lead to a decline in consumption and investment spending, which reduces business and household incomes and negatively affects the real economy. Moreover, rapidly declining asset prices can inhibit the ability of borrowers to raise money in the securities markets.

Regulators and Market Participants Had Mixed Views about the Effects of Deleveraging in the Recent Crisis

Officials from federal financial regulators, two securities firms, a bank, and a credit rating agency whom we interviewed had mixed views about the effects of deleveraging by financial institutions in the recent crisis. Nearly all of the officials told us that large banks and securities firms generally have sought to reduce their risk exposures since late 2007, partly in response to liquidity pressures. The institutions have used a number of strategies to deleverage, including raising new capital; curtailing certain lines of business; and selling assets, including trading assets, loans, and noncore businesses. Regulatory officials said that hedge funds and other asset managers also deleveraged by selling assets to meet redemptions or margin calls. According to officials at a securities firm, raising capital and selling financial assets was easier in the beginning of the recent crisis, but both became harder to do as the crisis continued. Regulatory and credit rating agency officials also said that financial institutions have faced

¹⁴The seminal paper on this issue is Akerlof, George A., "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism," *Quarterly Journal of Economics*, 84(3), pp. 488-500, 1970.

challenges in selling mortgages and other loans that they planned to securitize, because the securitization markets essentially had shut down during the crisis.

The regulators and market participants we interviewed had mixed views on whether sales of financial assets contributed to a downward price spiral. Officials from one bank and the Federal Reserve staff we interviewed said that due to the lack of market liquidity for some instruments and the unwillingness of many market participants to sell them, declines in prices that may be attributed to market-driven asset spirals generally resulted from the use of models to price assets in the absence of any sales. Federal Reserve staff also said that it is hard to attribute specific factors as a cause of an observed asset spiral because of the difficulty in disentangling the interacting factors that can cause financial asset prices to move down. In contrast, officials from two securities firms and a credit rating agency, and staff from SEC and OCC told us that asset spirals occurred in certain mortgage and other debt markets. Officials from one securities firm said that financial institutions, such as hedge funds, generally sought to sell first those financial assets that were hardest to finance, which eventually caused these markets to become illiquid. The absence of observable prices for such assets then caused their prices to deteriorate even more. According to the securities firm officials, firms that needed to sell assets to cover losses or meet margin calls helped to drive such asset sales.

FDIC and OCC staff and officials from a credit rating agency told us that some banks tightened their lending standards for certain types of loans, namely those with less-favorable risk-adjusted returns. Such loans include certain types of residential and commercial mortgages, leverage loans, and loans made to hedge funds. According to credit rating officials, banks essentially have set a target of slower growth for higher-risk loans that have performed poorly and deteriorated their loan portfolios. In addition, OCC and credit rating officials said that the largest banks rely heavily on their ability to securitize loans to help them make such loans. To that end, they said that the securitization markets need to open up and provide funding.

Regulators Limit Financial Institutions' Use of Leverage Primarily Through Regulatory Capital Requirements

Federal financial regulators (Federal Reserve, FDIC, OCC, and OTS) generally have imposed capital and other requirements on their regulated institutions as a way to limit excessive use of leverage and ensure the stability of the financial system and markets. Federal banking and thrift regulators have imposed minimum risk-based capital and non-risk-based leverage ratios on their regulated institutions. Risk-based capital ratios are broadly intended to require banks to hold more capital for higher-risk assets. Leverage ratios provide a cushion against risks not explicitly covered in the risk-based capital requirements, such as operational weaknesses and model risk. In addition, the regulators supervise the capital adequacy of their regulated institutions through ongoing monitoring, including on-site examinations and off-site tools. Bank holding companies are subject to capital and leverage ratio requirements similar to those for banks.¹⁵ Thrift holding companies are not subject to such requirements; rather, capital levels of thrift holding companies are individually evaluated based on each company's risk profile. SEC primarily uses its net capital rule to limit the use of leverage by broker-dealers. According to SEC officials, firms that had participated in SEC's now defunct Consolidated Supervised Entities program calculated their risk-based capital ratios at the holding company level in a manner generally consistent with the method banks used.¹⁶

Other financial institutions, such as hedge funds, use leverage but, unlike banks and broker-dealers, typically are not subject to regulatory capital requirements; instead, market discipline plays a primary role in limiting leverage. Finally, the Federal Reserve regulates the use of securities as collateral to finance security purchases, but federal financial regulators told us that such credit did not play a significant role in the buildup of leverage leading to the recent crisis.

¹⁵Bank holding companies are permitted to include certain debt instruments in regulatory capital that are impermissible for insured banks and, as discussed below, are not subject to statutory Prompt Corrective Action.

¹⁶Under its Consolidated Supervised Entities (CSE) program, the Securities and Exchange Commission (SEC) supervised broker-dealer holding companies—Bear Stearns, Lehman Brothers, Merrill Lynch, Goldman Sachs, and Morgan Stanley—on a consolidated basis. Following the sale of Bear Stearns to JPMorgan Chase, the Lehman Brothers bankruptcy filing, and the sale of Merrill Lynch to Bank of America, the remaining CSEs opted to become bank holding companies subject to Federal Reserve oversight. SEC terminated the CSE program in September 2008 but continues to oversee these firms' registered broker-dealer subsidiaries.

Regulators Are Considering Reforms to Address Limitations the Crisis Revealed in Regulatory Framework for Restricting Leverage

The financial crisis has revealed limitations in existing regulatory approaches that serve to restrict leverage. Although regulators have proposed changes to improve the risk coverage of the regulatory capital framework, limit cyclical leverage trends and better address sources of systemic risk, they have not yet fully evaluated the extent to which these proposals would address these limitations. First, regulatory capital measures did not always fully capture certain risks, particularly those associated with some mortgage-related securities held on and off balance sheets. As a result, a number of financial institutions did not hold capital commensurate with their risks and some lacked adequate capital or liquidity to withstand the market stresses of the crisis. Federal financial regulators have acknowledged the need to improve the risk coverage of the regulatory capital reform and are considering reforms to better align capital requirements with risk, but have not formally assessed the extent to which these reforms may address risk-evaluation concerns the crisis highlighted with respect to Basel II approaches. Such an assessment is critical to ensure that Basel II changes that would increase reliance on complex risk models and banks' own risk estimates do not exacerbate regulatory limitations revealed by the crisis.

Second, the recent crisis illustrated how the existing regulatory framework, along with other factors, might have contributed to cyclical leverage trends that potentially exacerbated the recent crisis. For example, according to regulators, minimum regulatory capital requirements may not provide adequate incentives for banks to build loss-absorbing capital buffers in benign markets when it would be less expensive to do so. When market conditions deteriorated, minimum capital requirements became binding for many institutions that lacked adequate buffers to absorb losses and faced sudden pressures to deleverage. Regulators are considering several options to counteract potentially harmful cyclical leverage trends, but implementation of these proposals presents challenges.

Finally, the financial crisis has illustrated the potential for financial market disruptions, not just firm failures, to be a source of systemic risk. With multiple regulators primarily responsible for individual markets or institutions, none of the financial regulators has clear responsibility to assess the potential effects of the buildup of systemwide leverage or the collective activities of the industry for the financial system. As a result, regulators may be limited in their ability to prevent or mitigate future financial crises.

To ensure that there is a systemwide approach to addressing leverage-related issues across the financial system, we have asked Congress to consider, as it moves toward the creation of a systemic risk regulator, the merits of tasking this entity with the responsibility for measuring and monitoring systemwide leverage and evaluating options to limit procyclical leverage trends. Furthermore, we made a recommendation to the financial regulators to assess the extent to which Basel II reforms may address risk evaluation and regulatory oversight concerns associated with advanced modeling approaches used for capital purposes. In their comments on our report, the Federal Reserve, FDIC, OCC, and SEC generally agreed with our recommendations.

Mr. Chairman, Ranking Member Biggert, and Members of the Subcommittee, this completes my prepared statement. I am prepared to respond to any questions you or other Members of the Subcommittee may have at this time.

Contacts

For further information on this testimony, please contact Orice Williams Brown on (202) 512-8678 or williamsso@gao.gov. Contact points for our Congressional Relations and Public Affairs offices may be found on the last page of this statement.

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's Web site (www.gao.gov). Each weekday afternoon, GAO posts on its Web site newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to www.gao.gov and select "E-mail Updates."

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's Web site, <http://www.gao.gov/ordering.htm>.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Web site: www.gao.gov/fraudnet/fraudnet.htm

E-mail: fraudnet@gao.gov

Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Ralph Dawn, Managing Director, dawnr@gao.gov, (202) 512-4400
U.S. Government Accountability Office, 441 G Street NW, Room 7125
Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548

