Professional Risk Managers' International Association

Lehman Brothers

July 2021

Summary

The financial crisis of 2007/2008 began in the United States due to the collapse of the housing market. Subprime mortgages fueled the housing market crash, which led to an economic downturn called the Great Recession, and threatened to destroy the international financial system.[1]

A massive, international investment company, Lehman Brothers invested aggressively in mortgage-backed securities which included subprime mortgages. From 2005 to 2007 the firm reported record profits, and it became the fourth-largest investment bank in the United States. However, the housing market made a sharp downturn in 2007 as housing prices fell and homeowners' mortgages outpaced what their homes were worth. Lehman Brothers failed to mitigate its high degree of leverage and throughout 2007 it continued to pursue investments, making it vulnerable to deteriorating market conditions.

After failed pleas to private banks and the US government for a bailout, Lehman Brothers declared bankruptcy on September 15, 2008[2]. Its corporate bankruptcy was the largest in US history, with assets totaling $639 billion, and liabilities totaling $613 billion.

Main Content

Lehman Brothers was founded in 1844 by Jewish German immigrants Henry, Emanuel, and Mayer Lehman. Originally a Montgomery, Alabama dry goods store, over time it evolved to a commodities brokerage, and then an investment banking house. It remained a family run business for decades, but in 1994, ten years after it had been purchased by American Express, Lehman Brothers became a publicly traded company.[3]

In 1999, the Glass-Steagall Act, which had prevented affiliations between commercial banks and investment banks, was repealed, in effect deregulating the financial industry. Lehman Brothers CEO Richard Fuld took advantage of this repeal by entering activities such as securitization, derivatives, real estate, asset management, and proprietary trading, which involved using the firm's money to make a profit from trading.[4]

From 2005 to 2007 the firm reported record profits.[5] In 2007, Fortune Magazine ranked Lehman Brothers the number one "Most Admired Securities Firm."[6] By 2008, the firm grew to become the fourth-largest investment bank in the United States, with 25,000 employees worldwide. Such success ended abruptly.

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[1] Duignan, B. (2019, October 7). *Financial crisis of 2007–08*. Encyclopedia Britannica. https://www.britannica.com/event/financial-crisis-of-2007-2008

[2] Chicago Tribune (26 January 2016). *JPMorgan to pay $1.42billion to Lehman Brothers*. https://www.chicagotribune.com/business/ct-jpmorgan-lehman-brothers-settlement-20160126-story.html

[3] *Introduction*. (n.d.). Baker Library | Bloomberg Center | Harvard Business School. https://www.library.hbs.edu/hc/lehman/exhibition/introduction

[4] History.com Editors. (2018, January 19). *Lehman brothers declares bankruptcy*. HISTORY. https://www.history.com/this-day-in-history/lehman-brothers-collapses

[5] Lioudis, N. (2021, January 30). *The collapse of Lehman brothers: A case study*. Investopedia. https://www.investopedia.com/articles/economics/09/lehman-brothers-collapse.asp

[6] *Leadership transitions*. (n.d.). Baker Library | Bloomberg Center | Harvard Business School. https://www.library.hbs.edu/hc/lehman/exhibition/leadership-transitions

An explanation for the rapid decline and fall of Lehman Brothers is offered by a Yale School of Management report:

Beginning in 2006, Lehman began to invest aggressively in real-estate-related assets and soon had significant exposures to housing and subprime mortgages, just as these markets began to sour. Lehman employed a cadre of accountants and risk professionals to continually monitor its balance sheet, key ratios, and risks. It undertook desperate and some questionable actions to stay alive. Nevertheless, Lehman ultimately failed because of an inability to finance itself.[7]

After failed pleas to private banks and the US government for a bailout, Lehman Brothers declared bankruptcy on September 15, 2008. Its corporate bankruptcy was the largest in US history, with assets totaling $639 billion, and liabilities totaling $613 billion. (Wiggins, Piontek, Metrick, 2014)

Background

The financial crisis that erupted in 2007 and 2008 had been building for several years. In May 2000, the Fed began lowering the federal funds interest rate from 6.5 percent. The rate bottomed out at 1 percent in June 2003. The lowered rates were designed to boost the economy by providing businesses and consumers bargain rates for money.

Many consumers acquired property because of the low mortgage rates, and home prices began to rise. Among these consumers were subprime borrowers, or those with no credit history or poor credit.

The banks then sold those loans on to Wall Street banks, and packaged them into mortgage-backed securities and collateralized debt obligations (CDOs), which were presented as low risk investments.

By 2004, home ownership in the US reached a saturation point of 69.2 percent. The Fed began to raise interest rates to 5.25 percent.

Home prices began to decrease and soon some borrowers found their homes worth less than they had paid for them, making them responsible for the difference if they sold their houses. Those with adjustable-rate mortgages found their interest rates continuing to rise. These factors resulted in increasing abandonment of mortgages and foreclosure by financial institutions.

Numerous subprime lenders went out of business throughout 2007. Bear Stearns collapsed in March 2008. In September 2008 home lenders Fannie Mae and Freddie Mac were seized by the government. Lehman Brothers foundered and requested government help, but was denied, and fell into bankruptcy.[8]

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[7] Wiggins, R. Z., Piontek, T., & Metrick, A. (2014, October 1). *The Lehman brothers bankruptcy a: Overview.* EliScholar – A Digital Platform for Scholarly Publishing at Yale. https://elischolar.library.yale.edu/journal-of-financial-crises/vol1/iss1/2/

[8] Singh, M. (2021, January 11). *The 2007-08 financial crisis in review.* Investopedia. https://www.investopedia.com/articles/economics/09/financial-crisis-review.asp

Drivers of Failure

Lehman Brothers was one of numerous other financial companies that branched into mortgage securitization. This process involves a borrower taking out a loan from a lender. The lender then sells the mortgage to intermediaries like investment banks, who package the mortgages into mortgage-backed securities (MBSs). MBSs, divided into levels of risk called tranches, were combined with other types of securities into collateralized debt obligations (CDO).[9] These tranches included subprime loans.[10] In an influential journal article William K. Sjostrom, Jr. discusses tranches. "The basic idea is to convert a pool of financial assets with a single rating into various debt securities with ratings at, above, and below the pool's rating."[11]

Standard and Poor's, Moody's, or Fitch provided ratings for both MBSs and CDOs. Investors worldwide such as pension funds, mutual funds, hedge funds, insurance companies, and other investment banks then bought MBSs and CDOs. ("Bankruptcy," n.d.)

Investors can utilize credit default swaps to hedge their risks with MBSs and CDOs. Swaps are issued by insurers or brokers to cover losses if borrowers default on their loans. In the early 2000s, a mortgage boom was driven by the Federal Reserve's low interest rates and legislation like the American Dream Downpayment Assistance Act. Many of these were subprime mortgages, which were applied AAA ratings even though the borrower supplied little documentation. A number of investment banks like Lehman Brothers pursued MBSs and CDOs for a high return. A report by Harvard Business School notes:

Firms like Lehman Brothers pursued an aggressive strategy of borrowing from the capital market at low rates and investing in mortgage-backed securities (MBS) and other speculative securities (including commercial MBSs, high yield debt, and leveraged loans) with the expectation of receiving a higher rate of return. When the MBSs and speculative fixed income securities began to plummet in value, the firm owed more than its assets were worth. ("Bankruptcy," n.d.)

At first, Lehman Brothers' business practices provided record profits. The capital markets unit skyrocketed 56 percent over 2004-2006. In 2007, the firm announced a net income of $4.2 billion on $19.3 in revenue. Lehman's stock price climbed to a record $86.18 per share in February 2007, giving it a market capitalization of nearly $60 billion. But the US housing market was already failing as subprime mortgage defaults reached a seven-year high. The stock market reacted to news of rising mortgage defaults on March 13, 2007 by recording its largest one-day drop over the past five years.

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[9] *Bankruptcy.* (n.d.). Baker Library | Bloomberg Center | Harvard Business School. https://www.library.hbs.edu/hc/lehman/exhibition/bankruptcy

[10] Gethard, G. (2020, March 30). *Falling giant: A case study of AIG.* Investopedia. https://www.investopedia.com/articles/economics/09/american-investment-group-aig-bailout.asp

[11] Sjostrom, William K., *The AIG Bailout (November 1, 2009).* Washington and Lee Law Review, Vol. 66, p. 943, 2009, Available at SSRN: https://ssrn.com/abstract=1346552

It wasn't until June 2008 when Lehman recorded a $2.8 billion loss due to write-downs on residential and commercial mortgage securities. While reporting a growth to $45 billion in liquidity, it still had exposure to mortgage related commercial and residential loans and securities.[12]

Nevertheless, Lehman downplayed their risk by saying that their home delinquencies would have little impact on total earnings. (Lioudis, 2021)

But after two Bear Stearns hedge funds with major stakes in MBSs failed in August 2007, investors worried about Lehman Brothers' viability and their stock fell sharply. The company reacted by eliminating 1,200 jobs and shutting down its BNC Mortgage unit, (Lioudis, 2021) which was its main subprime platform as well as its Korean mortgage business. (Wiggins et al., 2014)

Lehman Brothers continued to pursue aggressive growth. ("Bankruptcy," n.d.) In 2007, Lehman Brothers underwrote more mortgage-backed securities than all of its competitors and amassed an $85 billion portfolio that equaled four times its shareholders' equity. Fourth quarter 2007 figures showed that the firm's stock rebounded. It elected not to trim its huge mortgage portfolio in a move that led to its ultimate demise. (Lioudis, 2021)

Lehman Brothers' high degree of leverage and its huge mortgage securities portfolios made it vulnerable to plunging market conditions. The firm's shares dropped almost 48 percent on March 17, 2008 as investors worried that it would follow Bear Stearns' near-collapse. An issue of preferred stock yielded $4 billion by April, to provide some confidence in the company. (Lioudis, 2021)

Yet on June 7, 2008 Lehman announced a $2.8 billion second-quarter loss. It countered that news by raising another $6 billion from investors, boosting its liquidity pool to about $45 billion, decreasing its gross assets by $147 billion, reducing its residential and commercial mortgage exposure by 20 percent, and reducing its leverage. These moves, however, were too little, too late. (Lioudis, 2021)

By fall 2008, the firm had become overleveraged in high yield securities, loans, subprime mortgages and commercial mortgages. They faced bankruptcy. CEO Richard Fuld pursued rescue by the Korea Development Bank, Bank of America, or Barclays, but these efforts failed. The Federal Reserve Bank of New York refused to bail the firm out despite having done so for Bear Stearns in March 2008. (Lioudis, 2021)

Despite these dire circumstances, Lehman Brothers CEO Richard Fuld continued the state that the firm was solvent[13]. During the weekend of September 13 and 14, 2008, government officials met with investment banks to facilitate a private-sector bail out plan for Lehman Brothers, but were unable to do so since these banks were facing similar problems. In addition, mortgage securities experts who analyzed the firm's portfolio found it to be overvalued by billions of dollars. The commercial real estate holdings themselves were around

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[12] Schapiro, Mary L. (20 April 2010). *Testimony Concerning the Lehman Brothers Examiner's Report, Before the House Financial Services Committee*. U.S. Securities and Exchange Commission, *ttp://www.sec.gov/news/testimony/2010/ts042010mls.htm*

[13] National Commission on the Causes of the Financial and Economic Crisis in the United States (25 February 2011). *The Financial Crisis Inquiry Report: Final Report*. Pg 325. ISBN 978-0-16-087983-8 https://www.govinfo.gov/app/details/GPO-FCIC/summary

35 percent overvalued. The Fed refused to bailout Lehman Brothers, citing the fact that by law they could only provide a loan if the bank had good collateral assets, which it did not. (National Commission on the Causes of the Financial and Economic Crisis in the United States, 2011)

On September 15, 2008, Lehman Brothers declared bankruptcy, having lost more than 90 percent of its stock values since February 2007. About 25,000 employees worldwide lost their jobs. The next day, despite refusing to do so for Lehman Brothers, the Fed bailed out AIG, deeming it "too big to fail" without drastic global implications.

A few weeks later, Congress passed the Troubled Asset Relief Program (TARP), which sought to stabilize the financial system with an allocation of $700 billion.[14]

Following this, Barclays purchased the firm's large US fixed-income operations, but refused to take on its real estate assets. Nomura purchased Lehman Brothers' European and Asian satellites.

Analysis of Failures

A report by Harvard Business School reflected that, "By the twenty-first century, with rising government deregulation of the financial sector, firms like Lehman Brothers became increasingly leveraged in speculative, short-term investments—failing to strike a balance between risk and return." ("Global impact of the collapse," n.d.) Lehman Brothers depended on these short-term investments to raise billions of dollars every day, and when it could not secure that funding, they failed. (Wiggins et al., 2014)

After Bear Stearns faced a near collapse in March 2008, rumors circulated that Lehman Brothers would be next. Such rumors increased the firm's cost for credit. A Yale School of Management report comments that, "Some lenders withdrew from the firm, refusing to roll over its repos, others demanded bigger haircuts (discounts), and still others refused to accept all but a narrow type of collateral, refusing Lehman's real-estate-related assets and rendering them even more ineffective." (Wiggins et al., 2014)

Afterward

In order to address the conditions which led to the 2007/2008 financial collapse, the Dodd-Frank Wall Street Reform and Consumer Protection Act was signed into law by President Obama on July 21, 2010. The act was designed to protect consumers from the risks of investments like those taken by Wall Street.[15] Dodd-Frank established regulatory groups within the government such as the Financial Stability Oversight Council (FSOC) whose job it was to label certain financial firms as systemically important to the economic wellbeing of the country. These firms and banks with excess of $50 billion in assets were subjected to increased regulation and a special resolution process in order to prevent them from exposing the country to systemic risk.[16]

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[14] *Global impact of the collapse.* (n.d.). Baker Library | Bloomberg Center | Harvard Business School. https://www.library.hbs.edu/hc/lehman/exhibition/global-impact-of-the-collapse

[15] Amadeo, K. (2020, October 30). *What is the Dodd-Frank Wall Street reform act?* The Balance. https://www.thebalance.com/dodd-frank-wall-street-reform-act-3305688

[16] Webel, B. (2017, April 17). *The Dodd-Frank Wall Street Reform and Consumer Protection Act: Background and Summary.* Congressional Research Service. https://crsreports.congress.gov/product/pdf/R/R41350/10

In 2018, Congress rolled back some provisions of the Dodd-Frank Act with the Economic Growth, Regulatory Relief, and Consumer Protection Act. This act eased regulations on small banks with assets between $100 billion and $250 billion, which freed them from running stress tests to prove they could withstand a financial catastrophe. It also allowed consumers to freeze their credit for free. (Amadeo, 2020)

Lessons Learned

Do not reward a business culture of risk. Lehman Brothers contributed to creating a corporate culture of risk by providing large bonuses to employees who achieved high returns without establishing consequences when the firm did poorly. ("Leadership transitions," n.d.)

Do not fail to take write downs in the face of overvalued assets. When the housing market declined Lehman Brothers violated generally accepted accounting principles in continuing to overvalue their assets. This overvaluing hid how close the firm was to insolvency. (National Commission on the Causes of the Financial and Economic Crisis in the United States, 2011)

Relying on short-term debt financing is dangerous. In spite of a prohibition of leveraging a firm's assets-to-,equity ratio, Lehman Brothers' ratio more than doubled their ratio. This meant that a small percentage drop in assets' value sent the company spiraling into bankruptcy. (National Commission on the Causes of the Financial and Economic Crisis in the United States, 2011)

Regulations may prevent future economic meltdowns. A lack of state and federal government caused problems. The Dodd-Frank Act was designed to close the regulation gap. Deregulation of the financial sector had occurred throughout the Clinton and George W. Bush presidencies, and arguably sowed the seeds for Lehman Brothers' calamity.[17]

Greed leads to disaster. Greed was the ultimate cause of Lehman Brothers' failure. This core trait in human beings should be acknowledged and guarded against. Holding top management accountable for their decisions may help to ensure compliance.

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[17] Kelleher, D. (2019, June 12). *Trump's assault on financial reform*. The American Prospect. https://prospect.org/economy/trump-s-assault-financial-reform/

Timeline of events

1844 — Lehman Brothers is founded as an Alabama dry goods store

1994 — Lehman Brothers goes public

2006 — Lehman Brothers begins aggressive investment in real-estate industry, including subprime mortgages.

2007-2008 — Worldwide financial crisis

March 2008 — Bear Stearns suffers near collapse; Fed loans them money

September 6, 2008 — The US takes over mortgage lenders Fannie Mae and Freddie Mac to save them from collapse

September 13-14, 2008 — US government officials met with investment banks to facilitate a private-sector bailout plan for Lehman Brothers; efforts fail

September 15, 2008 — Lehman Brothers files for bankruptcy

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Webel, B. (2017, April 17). *The Dodd-Frank Wall Street Reform and Consumer Protection Act: Background and Summary.* Congressional Research Service. https://crsreports.congress.gov/product/pdf/R/R41350/10

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