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Author

Moran, Jacqueline Murdoch

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The Federal Reserve and the Decision to Let Lehman Brothers Fail

A Challenge to the Legal Explanation Put Forth by the Fed, and an Exploration into the Real Reasons for their Decision

By Jacqueline Murdoch Moran

In the most dramatic moment of the Great Recession, the Federal Reserve (the Fed) withheld an emergency bailout from Lehman Brothers, a peer investment bank among other firms infamously deemed “too big to fail.” In light of Lehman’s banefully consequential bankruptcy, the Fed’s decision remains a most controversial one. Yet Ben Bernanke, former Chairman of the Fed, and other key players maintain that they made the right decision. They submit the argument that there was no alternative to Lehman’s failure because the Fed lacked the legal authority to provide a bailout.

The Fed’s account of the Lehman decision is wrought with erroneous economic and legal arguments. To illustrate this, I inspect the language of Section 13(3) of the Federal Reserve Act to determine the Fed’s true legal bandwidth, and Lehman’s balance sheets to assess if the bank really was insolvent. The second dimension of this paper explores the real reasons the Fed chose to let Lehman fail. The Fed made a subjective decision to allow Lehman’s bankruptcy. They had their reasons why, but a legal constraint was not valid reason among them. Instead, it was a combination of legitimate financial constraints and political and social concerns.

The conclusion of this investigation goes beyond the fact that the Fed’s otherwise spectacular response to the crisis is tainted by what appears to be deceit; this study lends credence to the idea that, as both accountability and transparency are indispensable for the overall wellbeing of the American economy, there is work to be done.

Introduction

On September 14th, 2008, Ben Bernanke, Chairman of the Federal Reserve System (the Fed), hung up the phone with Tim Geithner, President of the Federal Reserve Bank of New York (FRBNY) and Henry Paulson, the Secretary of the Treasury. They had just been discussing Lehman Brothers, an investment bank powerhouse that was on the verge of bankruptcy. Lehman's imminent failure had a weight that could drag down the already fragile United States financial system. Bernanke, Geithner, and Paulson weren't just discussing Lehman Brothers; they were discussing the fate of the global economy. Throughout the years of the 2007-2009 financial crisis, this phone call would be one of many in which Bernanke, Geithner and Paulson devised plans for how to save failing financial institutions. But this phone call was different from the rest in one critical way: for Lehman Brothers, there would be no savior.

In the wake of the Great Depression, The Federal Reserve was established as the central bank of the United States. As the overseer of the financial system, the Fed monitors and maintains the health of the American economy. In times of crisis, the Fed is the institution tasked with restoring stability.¹ When the real estate market collapsed in 2007, and the financial crisis unfurled, the Fed leapt into action. Serving their purpose, Fed officials made every decision they could to contain the damage. They used their broad stroke of power to pour trillions of dollars into recapitalizing the economy and either bailed out or brokered deals for a string of failing firms. Four of the "Big 5" outright investment banks were salvaged in some way, Freddie Mac and Fannie Mae were nationalized, and American International Group received a record-setting bailout package of \$85 billion.² At the same time, the Fed pushed for the approval of Paulson's \$700 billion TARP proposal, dropped the Federal Funds Rate to zero, purchased huge swaths of bad bonds to resuscitate the financial system, set up credit swaps lines with foreign central banks, and expanded the scope, scale and maturity of their lending capabilities to an unprecedented extent.³

It seemed the Fed's capabilities knew no limits given the myriad array of actions they took to ease the blow of financial turmoil. Evidently, the Federal Reserve had no inherent reservations about exercising their authority to issue emergency loans or inject much needed liquidity in the financial market. But in the event of Lehman's credit crisis, the Fed drew the line. What separated Lehman from its peers? Why was this bank different?

Lehman's situation was less unique than the Fed's decision to let the bank fail. Unfortunately, that decision became a point of no return: Lehman's bankruptcy escalated the crisis, triggering the collapse of the global economic system. Today, we remember this period as the Great Recession, one of the largest financial disasters in modern economics, second only to the Great Depression. And yet, Bernanke, Geithner, and Paulson stand by their decision of withholding a bailout. To this day, they all maintain the same explanation: claiming that Lehman was an insolvent bank, they argue that the Fed lacked the legal authority to save Lehman Brothers.⁴ At a speech in Jackson Hole, Bernanke explained that "the company's available collateral fell short of the amount needed ... As the Federal Reserve cannot make an unsecured loan... the firm's failure was, unfortunately, unavoidable."⁵ He clarified later: "we did not have the legal authority" for a bailout.⁶ In an interview, Geithner similarly stated: "It was terrible partly because we didn't have enough [legal] degrees of

1 "What Are the Federal Reserve's Objectives in Conducting Monetary Policy?" (Board of Governors of the Federal Reserve System, 2019). Accessed April 4, 2020. www.federalreserve.gov/faqs/money_12848.htm.

2 Laurence M. Ball, *The Fed and Lehman Brothers*. (Johns Hopkins University: The National Bureau of Economic Research, 2016), 218.

3 Ben Bernanke, "Central Bank Independence, Transparency, and Accountability," (Japan: Institute for Monetary and Economic Studies International Conference, 2010), 13.

4 Laurence Ball, *The Fed and Lehman Brothers*, "Introduction."

5 Ben Bernanke, "Reflections on a Year of Crisis" (The Federal Reserve Bank of Kansas City's Annual Economic Symposium, Jackson Hole, Wyoming, 2009).

6 Ben Bernanke, "Closed Session" (FCIC archive, 2009). http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/FCIC%20Interview%20with%20Ben%20Bernanke,%20Federal%20Reserve.pdf

freedom to contain the damage to the economy.”⁷

The aim of this paper is to set the record straight. The Federal Reserve puts forth that under Section 13(3) of the Federal Reserve Act (FRA), they lacked the legal authority to bailout Lehman Brothers because it was an insolvent bank. But upon returning to the evidence, this explanation is inconsistent and incomplete. Despite claiming otherwise, the Federal Reserve possessed the legal authority to potentially save Lehman Brothers. The legality of the matter did not explicitly depend on Lehman’s insolvency as the Fed suggests it does. Furthermore, a look at Lehman’s balance sheet reveals that Lehman’s insolvency is also not as clear as the Fed indicates. Geithner said it best when he said, “in a financial crisis, insolvency can be in the eye of the beholder.”⁸ This was never more true than in Lehman’s case. It was near to impossible to accurately determine whether Lehman was facing an illiquidity or insolvency crisis. So, if it wasn’t the legal dimension that influenced the Fed’s decision, what factors did guide their decision? Again returning to the evidence, the Fed decided to withhold an emergency loan from Lehman because of a combination of political and social pressures, as well as grave financial concerns. My research will show that the Fed’s ex-post reasoning used to explain their decision to let Lehman fail does not match their ex-ante discussion about this decision. Because Section 13(3) of the FRA made it possible for the Fed to extend a loan to Lehman, it is very unlikely that legal constraints were the primary driver in the Fed’s decision. Instead, a number of other concerns – financial, political and social – lead them to let Lehman Brothers fail.

Summary

First, I will contextualize the research efforts of this paper in the appropriate historical setting. Part I describes the preconditions of the 2007-2009 financial crisis. The primary drivers in the market meltdown, and specifically in Lehman’s failure, include the emergence of the shadow banking system, the proliferation of securitization and derivative products, and a toxic housing market. Lastly, a summary of the key events in the 2007-2009 financial crisis traces the way in which various investment banks and other firms were impacted. The exploration into my thesis begins in the second section. Part II assesses the foundation of the Federal Reserve’s ex-post explanation for letting Lehman fail with a two-prong approach: first, it looks at Section 13(3) of the Federal Reserve Act, and second, it looks at Lehman’s balance sheets at the time of crisis. Part III transitions from a discussion around the issues with the Fed’s ex-post explanations to an analysis of the real reasons they let Lehman fail. To conduct my research in Parts II and III, I primarily depended on the historical materials in the Federal Reserve’s database and Stanford Law School’s well-stocked archive of data from the Financial Crisis Inquiry Commission (FCIC). I also rely on the US Securities and Exchange Commission (SEC) filings, Section 13(3) of the Federal Reserve Act, the official report of Lehman’s Chapter 11 Bankruptcy filing (referred to as the Valukas report,) and the pre-existing secondary literature that pertains to this topic. In Part IV, the conclusion extrapolates considerations from my research and applies the implications to the stakes we all have invested in this matter.

Part I: The Rise and Fall of the Investment Bank

By the year 2000, five banks were universally recognized as the “Big 5” outright investment banks on Wall Street: Goldman Sachs, Morgan Stanley, Merrill Lynch, Lehman Brothers, and Bear Stearns (in descending order according to assets).⁹ Eight years later, there would be none. Ironically, the reasons for these firms’ ascent would also become the reasons for their demise. Part I traces the arch of this development, starting with the origins of success in the late 1970s, and culminating with the financial crisis of 2007-2009. It sets the stage for Part II, in which the thesis of the paper is directly addressed for the first time.

7 Tim Geithner, “Crisis On Wall Street: The Week That Shook The World,” (interview by CNBC, 2018). <https://www.youtube.com/watch?v=0yuKLHG0dGs>.

8 Tim Geithner, *Stress Test* (New York: Crown Publishers), 206.

9 Emi Nakamura, “Lehman Brothers: Introduction” (Macroeconomic Policy from the Great Depression to Today, University of California, Berkeley, 2019).

*Preconditions of Crisis: 1970s-1990s*The Shadow Banking System:

The emergence of the shadow banking system amplified the space for risk that the recent neoliberal shift in economic ideals had introduced. Without being bound by rules or subject to regulatory oversight, the shadow banking system could engage in a broader range of business that was more lucrative, and also much more risky. This freedom manifested into the expansion of two rapidly ballooning markets: the commercial paper market and repo market. Furthermore, within the shadow banking system, investment banks like Lehman Brothers could use more leverage than their regulated counterparties, who were hampered by leverage limitations and other capital requirements designed to limit risk. Investment banks could ramp up their leverage ratios as a way of multiplying returns on investments. However, if investments turned sour, then losses would be multiplied by the same factor and could potentially wipe out a bank's entire equity base. Despite the high-stake risks incurred by excessive leveraging, markets were doing far too well for it to restrain investment banks' business decisions.¹⁰

These types of activities gave shadow banks an indisputable competitive advantage. This edge pressed traditional banks to deregulate too, so that they could partake in new markets and preserve the base of their business. Shadow banks emerged around the end of the 1970s, in the dawn of the neoliberal era. Throughout the 1980s, urged by the presiding neoliberal inclination for unregulated markets, Congress began dismantling legislation that was designed to limit risk, but at the time, appeared to be limiting financial success.¹¹ In 1999, the Glass-Steagall Act was repealed by the Gramm-Leach-Bliley Act, which eliminated the barrier between commercial banking activity (like mortgage and business lending) and investment banking activity (like bond underwriting). By the end of the 1990s, banks operated under the lowest levels of regulation since the era preceding the Great Depression.¹²

Securitization and Derivatives:

In the same moment that financial regulations were relaxed, advancements in technology expanded the capabilities of traders. Faster communication and the digitalization of business allowed financial systems to become more sophisticated. By the 1980s, Wall Street experienced a super-bloom of financial innovation. Securitization and derivative products created new channels for revenue, and became the hallmark feature of business in this period. Structured financial products, like collateralized debt obligations (CDOs), served the complex financing needs of the securitization movement. Structured finance also conditioned technically tedious accounting practices, like off balance sheet accounting. If shadow banking led to an amassment of risk, then these financial instruments and practices accelerated the spread of it. Additionally, these tools increased the interconnectedness of finance, which would later prove to be a source of heightened risk to the overall health of the financial system.¹³

The Mortgage Market:

In conjunction with these transformations, the mortgage market greatly expanded in the 1980s. Fannie Mae, Freddie Mac, and Ginnie Mae were government-sponsored enterprises (GSEs) that bought and sold mortgages. Changes to the law made between 1968 and 1970 gave these GSEs a new option: securitization. Quickly

10 Financial Crisis Inquiry Commission, *Setting the Stage: Shadow Banking*. (FCIC: The Report, 2011). Accessed March 30, 2020, Part II: Chapter 2. http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_chapter2.pdf.

11 Financial Crisis Inquiry Commission, *Setting the Stage: Shadow Banking*. (FCIC: The Report, 2011). Accessed March 30, 2020, Part II: Chapter 2. http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_chapter2.pdf.

12 Financial Crisis Inquiry Commission, *Setting the Stage: Shadow Banking*. (FCIC: The Report, 2011). Accessed March 30, 2020, Part II: Chapter 2. http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_chapter2.pdf.

13 Financial Crisis Inquiry Commission, *Setting the Stage: Securitization and Derivatives..* (FCIC: The Report, 2011). Accessed March 30, 2020, Part II: Chapter 3. http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_chapter2.pdf.

engaging in this lucrative opportunity, Fannie, Freddie, and Ginnie became important sources of liquidity in the American real estate market by buying mortgages from lenders and then either holding them in their portfolios or repackaging them as mortgage-backed securities (MBSs). Borrowing from these GSEs came with an implicit government guarantee of a timely payment of interest and principal on any loans. Because this guarantee made investing more attractive to individuals who otherwise may not be inclined to invest in the secondary mortgage market, these institutions expanded this market, increasing liquidity and stability.¹⁴ Ginnie issued its first MBS in 1970, and an explosion of growth followed; in 2008, Fannie and Freddie either owned or guaranteed over 50% of the nation's mortgages, worth \$12 trillion. Both Fannie and Freddie reaped the same benefits of deregulation, and each operated with extreme leverage. Typically, a leverage ratio above 2 indicates a relatively risky investment for potential investors, though the benchmark varies by sector. Investment banks ratcheted up their leverage ratios to around 30:1, while Freddie more than doubled that, maintaining a shocking ratio of 75:1.¹⁵ Leverage is a double edged sword: in times of prosperity, leverage amplifies one's success, but in times of turbulence, it amplifies losses to the same degree. Thus, extreme leverage ratios drove the unbelievably high returns during the mortgage market boom, and they created mass chaos when the market turned sour.

The complexity of trading multiplied exponentially with the proliferation of derivatives, (credit default swaps and collateralized debt obligations) and securities (mortgage-backed securities and even more complicated investment funds, like structured investment vehicles). The swell of mortgages was like the ammunition for these new financial weapons. As consumer demand snowballed and house prices rose, mortgage-originators became more and more lax with whom they provided loans to. The issuance of subprime loans surged. Wall Street fed off of the escalating real estate market, and the symbiotic relationship propelled the success of banks to new heights. The dynamic between shadow banks and the mortgage market proved to be good for profits, but it created major problems too. Furthermore, due to the highly interconnected nature of modern finance, everyone was exposed to these problems. Ultimately, these financial transformations contributed to the collapse of the housing market, which brought the financial system down too.¹⁶

Lehman Brothers: Run up to Crisis

The monstrosity of risk that had been accumulating in the financial system was about to rear its head. By 2000, a formidable asset bubble in the housing market was quickly ballooning into a financial grenade, and Lehman Brothers had their finger curled around the pin. Lehman's book was saturated with securities and derivatives connecting it to the real estate market and was operating with an extreme leverage ratio of 30.7 to 1.¹⁷ The final nail in Lehman's coffin was their plunge into loan origination. In 2003, Lehman took up business in that direction, acquiring various firms that provided subprime loans.¹⁸ By 2008, the bank held more MBSs than any other financial institution.¹⁹ Their heavy investment into MBSs, many of which were derived from the subprime mortgages, brought Lehman Brothers, once a titan of industry, to their knees. The bank would never recover.

The Housing Market Meltdown

Falling house prices are historically rare, but the huge run up in prices throughout the 2000s is also

14 John J. McConnell and Stephen A. Buser, "The Origins and Evolution of the Market for Mortgage-Backed Securities." (Annual Review of Financial Economics, 2011). Vol. 3:173-192, <https://www.annualreviews.org/doi/10.1146/annurev-financial-102710-144901>.

15 Financial Crisis Inquiry Commission, *Setting the Stage: Securitization and Derivatives..* (FCIC: The Report, 2011). Accessed March 30, 2020, Part II: Chapter 3. http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_chapter2.pdf.

16 Financial Crisis Inquiry Commission, *Setting the Stage: Securitization and Derivatives..* (FCIC: The Report, 2011). Accessed March 30, 2020, Part II: Chapter 3. http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_chapter2.pdf.

17 Emi Nakamura, "Lehman Brothers: Introduction" (Macroeconomic Policy from the Great Depression to Today, University of California, Berkeley, 2019).

18 "Lehman Brothers: The Rise and Fall of the US investment bank" (Corporate Finance Institute Education Inc, 2015). <https://corporatefinanceinstitute.com/resources/knowledge/finance/lehman-brothers/>.

19 "Lehman Brothers: The Rise and Fall of the US investment bank" (Corporate Finance Institute Education Inc, 2015). <https://corporatefinanceinstitute.com/resources/knowledge/finance/lehman-brothers/>.

unprecedented. All it took was a slowdown in home prices for the extreme amount of subprime mortgages to begin defaulting. The financial system was undercapitalized, overleveraged, and highly vulnerable to fundamental risks. Meanwhile, Lehman Brothers had increased their real estate holdings from \$52 billion in 2006 to \$111 billion by the end of fiscal 2007.²⁰ What was going on in the real estate market at this time? Tim Geithner reflected on the precipice of crisis in his memoir:

“Fear was building across the financial system, especially in the corners that touched housing. Securities backed by “nonconforming” mortgages – the ones that weren’t backed by Fannie or Freddie – were becoming pariah paper; no one knew how much they were worth anymore, so almost everyone was running away from them. They had dangerous implications for financial institutions that were using them as collateral for short-term loans or had calculated how much capital to hold based on optimistic assumptions about their value.”²¹

Credit markets began to seize in 2007. By January of 2008, markets started to see their worst nightmare turn to reality. In that month, foreclosures rose 57% since the year before at that time, or “year-over-year” (YOY).²² In February, home sales fell 24% YOY and resale home prices fell 8.2% YOY.²³ People did not have the money to pay their mortgages, delinquency rates spiked, and as demand disintegrated, house prices continued to crash. When the mortgages backing MBSs defaulted and became worthless, the securities became worthless too. Wall Street was suddenly in a terrifying free fall. The precariously poised financial system, which had been soaring higher and higher, got spooked and looked down; they saw a big gap between perceived values and fundamental values: an asset bubble. Investors realized that the collateralized debt obligations and MBSs that bond-dealers were trying to sell were basically worthless and stopped buying them. Credit flows screeched to a stop, and investment banks, like Lehman Brothers and the rest of the Big 5, suddenly found themselves in an existential crisis.²⁴

The Fed during Crisis: Spare the Rod, Spoil the Bank

In March of 2008, the bailouts began. The Federal Reserve had been tracking market movements since 2006. They first mentioned a “cooling housing market” in a Federal Open Market Committee (FOMC) announcement in May, although it was not contextualized as a major need for concern.²⁵ But by the summer of 2007, FOMC announcements started to characterize the financial markets as “volatile.”²⁶ The Fed began engaging in expansionary monetary policy, lowering the target federal funds rate (FFR) to encourage investment and keep business operations running. But this would not be enough. On March 7th, the Fed announced the creation of the Term Auction Facility program, which would facilitate the release of \$50 billion on March 10th and again on March 24th.²⁷ On March 11th, the Fed announced the purchase of \$200 billion worth of Treasury notes to bail out

20 Rosalind Z. Wiggins, Thomas Piontek, and Andrew Metrick, “The Lehman Brothers Bankruptcy.” (Yale School of Management: Yale Program on Financial Stability, 2014). Case Study 2014-3AV1, 6. <https://som.yale.edu/sites/default/files/files/001-2014-3A-V1-LehmanBrothers-A-REVA.pdf>.

21 Tim Geithner, *Stress Test*, 119.

22 “Foreclosure Rate Climbs More Slowly,” (Realtor Mag, 2008.) Accessed March 21, 2020. <https://www.nar.realtor/rmodaily.nsf/pages/News2008022602>

23 “Existing Home Sales Rise in February” (National Association of Realtors, 2008) Accessed March 21, 2020. <http://archive.realtor.org/article/existing-home-sales-rise-february>

24 “Lehman Brothers: The Rise and Fall of the US investment bank” (Corporate Finance Institute Education Inc, 2015). <https://corporatefinanceinstitute.com/resources/knowledge/finance/lehman-brothers/>.

25 “FOMC statement and Board approval of discount rate...” (Board of Governors of the Federal Reserve System, FOMC Statement, May 2006). Accessed April 28, 2020. <https://www.federalreserve.gov/newsevents/pressreleases/monetary20060510a.htm>.

26 “Press Release.” (Board of Governors of the Federal Reserve System, FOMC Statement, August 2007). Accessed April 28, 2020. <https://www.federalreserve.gov/newsevents/pressreleases/monetary20070807a.htm>.

27 “Federal Reserve will offer \$50 billion in 28-day credit through its Term Auction Facility Today.” (Board of Governors of the Federal Reserve System, Press Release, March 10, 2008). Accessed April 28, 2020. <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080310a.htm>.

bond dealers who were stuck with countless MBSs and CDOs and zero buyers.²⁸ But even this bold intervention could not stop what was about to happen.

Bear Stearns was the weakest of the Big 5 banks and the first to trip. The following string of events can be found in a SEC filing that was compiled for the Financial Crisis Inquiry Commission.²⁹ On March 13th, Bear's management team indicated that liquidity had fallen to \$2 billion. They made a telephone call to the Commission saying that "the firm's senior management has concluded that they are unable to operate normally on Friday." The next day, the Federal Reserve Board in Washington D.C. and New York and the US Treasury worked to assess Bear's financial position. Over that weekend, the NY Fed announced that it had created a Primary Dealer Credit Facility (PDCF): an overnight loan facility through which the Fed can provide emergency loans to "primary dealers in exchange for a specified range of eligible collateral." The Fed proceeded to bail out Bear Stearns in two steps. First, the Fed pumped \$12.9 billion into Bear by passing it through JPMorgan Chase. Then, President of the NY Fed, Tim Geithner, and Secretary of the Treasury, Hank Paulson, brokered the deal for JPMorgan Chase to take over Bear Stearns, now just the appendage of a commercial bank.

While the Fed continued lowering the federal funds rate over the next months, Paulson took a bold step by mid-summer. In July of 2008, he began talks of rescuing Fannie Mae and Freddie Mac.³⁰ Knowing that if they failed, they would bring everyone else down with them, Paulson pushed for nationalizing the GSEs, making their "implicit guarantee" explicit. The Fed and the Secretary of the Treasury experienced a heightened degree of public and political backlash at this point, as they seemed to be bailing out the very firms that had generated the crisis in the first place. But Bernanke and Paulson followed this logic: "[it] was not a time to focus on punishing the arsonists. It was the time to focus on putting out the fire."³¹ Interestingly, when the Lehman crisis hit, they found reason for exception to this rule.

The Fed on Lehman Brothers: Bailout or Bust?

The crisis peaked in September when Lehman became the next victim of the market's failure. The Lehman Brothers were not unique in the types of issues it faced, but they were unique in how big their issues were. Lehman was hugely dependent on the repo market to finance daily business transactions, usually putting up MBS as collateral on the short term loans. By September, Lehman could not get their repos to roll because its collateral had turned to poison. Trapped with a frightening volume of toxic assets, Lehman started taking on huge losses of up to \$5.6 billion in write-downs.³² Their excessive leverage pushed the knife in deeper. Lehman did not have a hand to play and was out of chips. If the Fed did not provide them with a private sector solution or supply emergency credit directly, the game would soon be over for Lehman.

On September 11th, an email circulated through the NY Fed expressing dire concerns over Lehman's "distressed sale situation, and [that] it [was] not completely clear who would or could buy the firm."³³ The Fed filtered through private options. JP Morgan was still absorbing Bear Stearns. Barclays was a potential buyer, but Paulson described in his memoir how "the British screwed us," when the London-based bank walked away from the deal just before it closed. Barclays felt uneasy about guaranteeing all of Lehman's financial

28 "FOMC statement: Federal Reserve and Other Central Banks Announce Specific Measures Designed to Address Liquidity Pressures in Funding Markets." (Board of Governors of the Federal Reserve System, Press Release, March 11, 2008). Accessed April 28, 2020, <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080311a.htm>.

29 "Timeline Regarding The Bear Stearns Companies Inc," (FCIC archive, 2008). Accessed March 27, 2020, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-04-03_SEC_Timeline_regarding_the_Bear_Stearns_Companies_Inc.pdf.

30 Timothy Geithner, *Stress Test*, 200-2015.

31 Timothy Geithner, *Stress Test*, 209.

32 "Lehman Brothers: The Rise and Fall of the US investment bank" (Corporate Finance Institute Education Inc, 2015). <https://corporatefinanceinstitute.com/resources/knowledge/finance/lehman-brothers/>.

33 Rita C Proctor, "Financial Markets Conference Call." (FCIC archive, Email September 11, 2008). Accessed April 12, 2020. https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-09-11_Federal_Reserve_Bank_Email_from_Rita_C_Proctor_to_Chairman_Re_AM_Financial_Markets_Conference_Call_9-11-08.pdf

obligations, especially without shareholder approval.^{34,35} Bank of America was still digesting the disgraced Countrywide, but in the end, they were the only feasible option.³⁶ According to a Wall Street Journal article published in December of 2008, just two months after Lehman succumbed to the crisis, Dick Fuld, the CEO of Lehman Brothers, had spent the weekend desperately calling the home of BofA CEO, Kenneth Lewis. But the calls went unanswered.³⁷ Realizing a private solution was off the table, the Fed brainstormed that would call for the implementation of its own lending facilities. However, despite expanding the lending capabilities of these facilities, on Sunday, September 14th, the Fed ultimately decided to withhold an emergency loan from Lehman Brothers. On September 15th, Lehman Brothers filed for bankruptcy.³⁸

Summary of Key Events around Bear's Bail Out and Lehman's Bust:

Date (2008)	Key Event
March 13	Bear's liquidity falls to \$2 billion.
March 14	Bear's position assessed by the Fed and Treasury.
March 15, 16	PDFC announced, Bear subsequently rescued in a two-step plan.
September 11	Email circulates Fed re: Lehman's distressed position.
September 12-13	Private options assessed, then deemed impossible.
September 14	The Fed expands lending capabilities of PDFC for potential Lehman bailout.
September 15	The Fed withholds bailout, Lehman files for bankruptcy.

The Fed on "The Day Wall Street Died"

The failure of Lehman Brothers was a turning point in the crisis. Geithner later characterized this moment as "the most destabilizing financial event since the bank runs of the Great Depression."³⁹ From the onset, the Fed took bold actions playing the savior in these first years of the Great Recession. But they knew it would be impossible to walk out of all this without any casualties. They decided to let Lehman take the bullet.

Subsequently, Ben Bernanke wrote in his memoirs: "I do not want the notion that Lehman's failure could have been avoided, and that its failure was consequently a policy choice, to become the received wisdom, for the simple reason that it is not true."⁴⁰ The objective of the next two sections is to uncover inconsistencies in this narrative. Lehman's failure could have been avoided in a legal manner. The Fed had the ability to bail out Lehman Brothers but opted not to because of financial concerns and political pressures.

34 "UK Didn't Block Barclays' Lehman Deal- regulator." (Reuters, Market News,2010). Accessed April 12, 2020. <https://www.reuters.com/article/barclays-lehman-idUSLDE62B25820100312>

35 Note: Lehman's situation was urgent, and Barclays would have had to agree to the deal before having the time to get shareholder approval. Waiving the usual shareholder approval of a deal like this would have been unprecedented, and became the stated reason for Barclays aborting the deal – that and their unwillingness to take on Lehman's obligations.

36 Rita C Proctor, "Financial Markets Conference Call." (FCIC archive, Email September 11, 2008). Accessed April 25, 2020. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-09-11_Federal_Reserve_Bank_Email_from_Rita_C_Proctor_to_Chairman_Re_AM_Financial_Markets_Conference_Call_9-11-08.pdf.

37 Susanne Craig, Jeffery McCracken, Aaron Fucchetti, Kate Kelly, "The Day that Wall Street Died." (Wall Street Journal, December, 2008). Accessed April 12, 2020. <https://www.wsj.com/articles/SB123051066413538349>

38 Laurence Ball, The Fed and Lehman Brothers, "Introduction."

39 Timothy Geithner, Stress Test, 212.

40 Ben Bernanke, The Courage to Act: A Memoir of a Crisis and Its Aftermath. (W. W. Norton & Company, 2015), 291.

Part II: The Legal Issue

Section 13(3): Historical Context

The 1913 Federal Reserve Act established “the Federal Reserve System as the central bank of the United States to provide the nation with a safer, more flexible, and more stable monetary and financial system.”⁴¹ This act has profound implications for the development of the broader American banking system and global economy at large. It is an elaborate piece of legislation that has far-reaching effects; but this paper focuses on one part: Section 13. Powers of Federal Reserve Banks, Subsection 3. Discounts for individuals, partnerships, and corporations, a.k.a. Section 13(3). Section 13(3) had been called an “obscure” provision of the Federal Reserve Act (FRA) because it had lain dormant for nearly 70 years leading up to the Great Recession.⁴² As the crisis loomed in 2008, Section 13(3) became relevant again. This law was of paramount importance in the discourse around mitigating the financial crisis.

Section 13(3) extends the boundaries of the Fed’s usual lending power in the face of “unusual and exigent circumstances,”⁴³ which call for special actions deemed necessary by the Fed. There was little debate around whether or not the Great Recession qualified as an “unusual and exigent circumstance.” Clearly justified, the Fed turned to this provision of the law in 2008 when the world thought it was facing financial Armageddon. However, the Fed’s implementation of Section 13(3) remains controversial, namely in regards to which institutions received or did not receive credit under this section and why this was the case.

The Fed usually faces statutory limitations on who it can lend to, the type of collateral it can accept as insurance on its loans, and how long it can lend for.⁴⁴ However, the unusual circumstances of the Great Recession allowed the Fed to invoke Section 13(3), which relaxed those limitations. Under Section 13(3), the Fed lent to a broader category of borrowers with looser requirements for collateral so that firms like Lehman could be aided in times of crisis. Lehman’s survival ultimately depended on the “indorsement” or “securitization” of their loan such that it met the satisfaction of the Fed under the broadened criteria of Section 13(3).⁴⁵ But, in the most dramatic moment of the financial crisis, the Fed refused to save Lehman, even with the added degrees of freedom that Section 13(3) permitted.

Ben Bernanke, Tim Geithner, and Hank Paulson conclusively determined that Lehman Brothers was insolvent. Their explanation puts forth that, because of Lehman’s insolvency, it did not have sufficient collateral to secure a loan that was legally “satisfactory.”⁴⁶ To this day, they defend their decision. According to Bernanke in his testimony to the Financial Crisis Inquiry Commission (2010):

“[T]he only way we could have saved Lehman would have been by breaking the law, and I’m not sure I’m willing to accept those consequences for the Federal Reserve and for our systems of laws. I just don’t think that would be appropriate.”⁴⁷

Years later, Paulson reiterated, “Lehman was an even bigger problem than Bear Stearns because they were insolvent. There was a big capital hole,” while Geithner rationalized, “we had stretched the Fed’s authority

41 Federal Reserve Board, “Federal Reserve Act, Section 13. Powers of the Federal Reserve Banks, 3. Discounts for Individuals, partnerships, and Corporations.” (Board of Governors of the Federal Reserve System, 2017). Accessed April 1, 2020, <https://www.federalreserve.gov/aboutthefed/fract.htm>.

42 Marc Labonte, “Federal Reserve: Emergency Lending,” (Congressional Research Service, March 2020), 6.

43 Federal Reserve Board, Section 13(3).

44 Marc Labonte, “Federal Reserve: Emergency Lending,” 16.

45 Federal Reserve Board, Section 13(3).

46 Financial Crisis Inquiry Committee, “Final Report of the Nation Commission on the Causes of the Financial and Economic Crisis in the United States.” (FCIC archive, 2011), “Conclusion.” http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_full.pdf

47 Ben Bernanke, “Testimony.” (Laurence Ball, The Fed and Lehman Brothers, FCIC archive, 2010), 2.

well beyond what most normal humans were comfortable with.”^{48, 49} These policy leaders have released a voluminous number of claims like these. There is no shortage of accounts, testimonies, interviews, Federal Reserve speeches, personal memoirs, or otherwise in which the Fed and the ex-Secretary of the Treasury defend their decision and cling to the explanation that they simply lacked the legal authority to substantiate a bailout for Lehman due to the bank’s insolvency. However, the coming analysis will show that (1) the language of Section 13(3) did not explicitly preclude Lehman from receiving emergency funding and (2) upon revisiting the balance sheets of Lehman Brothers, the bank’s solvency was nearly impossible to evaluate.

To explore the bounds and limitations of this statute, I looked at several primary sources. The first was the law itself. While it was a challenge to obtain a copy of Section 13(3) as it stood in 2008, by using the current version of the law and excerpts of the 2008 version found throughout the secondary literature, I was able to conduct my analysis.⁵⁰ Additionally, I reviewed a memo from the Financial Crisis Inquiry Commission (FCIC) archive containing legal analysis of the Commercial Paper Funding Facility, which “embodies advice ... as part of its consideration of the CPFF.”⁵¹ Though the CPFF was created in October 2008, this analysis is one of the only ex-ante sources that evaluates the legal language of Section 13(3). Finally, I assess the role of the Primary Dealer Credit Facility (PDCF) that could have been used to sustain Lehman Brothers.

Statute Evaluation

Section 13(3) allowed the Fed to lend to “individuals, partnerships, and corporations,” provided that the [lent] bills of exchange are, “indorsed or otherwise secured to the satisfaction of the Federal Reserve bank,” and that, “before discounting any such note, draft, or bill of exchange, the Federal Reserve Bank shall obtain evidence that such participant in any program or facility with broad-based eligibility is unable to secure adequate credit accommodations from other banking institutions.”⁵² Lehman Brothers categorically fell within this broad description. Just like Bear Stearns, AIG, and other major firms, Lehman was a “financial corporation” that had ample “evidence” proving its inability “to secure credit from other banking institutions.”⁵³ While Lehman met these two prerequisites needed to borrow from the Fed, their qualification for a loan came down to one final factor: Lehman’s ability to put up the appropriate collateral.⁵⁴ Section 13(3) never mentions “solvency” as an explicit prerequisite for an extension of credit. On the contrary, the language of the statute is thoughtfully and deliberately designed to leave the Fed with an abundance of freedom to make judgement calls they see fit.⁵⁵

Memo from the Fed’s Legal Division

The Legal Division of the Fed provided a legal interpretation of Section 13(3) in 2008 for its proper implementation. Scott Alvarez, a top lawyer on General Counsel at the Fed, circulated a memo to Fed officials, which was later submitted to the FCIC.⁵⁶

The legal analysis in the memo unambiguously concluded that Section 13(3) did not explicitly discriminate against any particular type of asset that can act as collateral. On the contrary, the acceptability

48 Henry Paulson, “Crisis On Wall Street: The Week That Shook The World,” (CNBC, September 11, 2018). <https://www.youtube.com/watch?v=DsZ28xn9ATo>.

49 Tim Geithner, “Crisis On Wall Street: The Week That Shook The World.”

50 Note: After the Great Recession, Section 13(3) was revised in the Dodd-Frank Act (2010). The current copy of the FRA is found on the Federal Reserve Bank’s website.

51 CPFF: commercial paper funding facility. “On October 7, 2008, the Board approved the establishment of a CPFF to provide liquidity to the commercial paper (CP) market in coordination with the Federal Reserve’s existing credit facilities. The CPFF was designed to encourage investors to engage in term lending in the CP market, resulting in lower CP rates and increased demand for CP. CPFF credit would be extended to eligible issuers through a through a special purpose vehicle established for that purpose (‘CPFF SPV’).” “Legal Division Memo for FCIC,” accessed April 19, 2020, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-03-09_Federal_Reserve_Bank_Letter_from_Legal_Division_to_Files_Re_Authority_of_the_Federal_Reserve_to_provide_extensions_of_credit_in_connection_with_a_commercial_paper_funding_facility_CPFF.pdf.

52 Federal Reserve Board, Section 13(3).

53 Federal Reserve Board, Section 13(3).

54 Ben Bernanke, collection of speeches. (FCIC archive, 2011), <http://fcic.law.stanford.edu/resource>.

55 Federal Reserve Act, Section 13(3).

56 Note: phrases were not underlined in the original memo; they were added in this analysis for added emphasis on pertinent information.

is up to the discretion of the Board: “The absence of any objective criteria in the statutory language for the sufficiency of collateral leaves the extent and value of the collateral within the discretion of the Reserve Bank.”⁵⁷ This liberal design is this the intended purpose of the law: “Congress amended Section 13(3) to permit Reserve Banks to discount notes for IPCs where the notes are either ‘indorsed or otherwise secured to the satisfaction of the Reserve Bank.’”⁵⁸ This design equips the Fed with the legal leeway to legally extend credit to Lehman Brothers. In the report, Alvarez also clarified that Section 13(3) permits the “extensions of credit based on indorsed CP [to meet] the requirements for discount under Section 13(3), even if the credit is not also collateralized.”⁵⁹ In other words, even if Lehman did not have any collateral whatsoever, another mechanism for securing a loan existed and could be accepted by the Fed. Using this legal interpretation of Section 13(3), a bailout fell within the realm of legal possibility. The Fed could have used the Primary Dealer Credit Facility to intervene in the tri-party repo market, like it did for Bear Stearns. This would not have been simple and there would have been costs attached, but it would have been legally possible. Despite the Fed’s claim that it was legally constrained, “the scope of the Reserve Bank’s discretion in deciding what will be ‘satisfactory’ to it in connection with Section 13(3) lending [was] extremely broad,” according to the legal analysis of the Fed’s own Legal Division.⁶⁰

The PDCF

The PDCF was created in March 2008 to save Bear Stearns.⁶¹ Bill Dudley of the FRBNY explained the PDCF in the March FOMC meeting:

“The PDCF should help to restore confidence among repo investors. It essentially creates a tri-party repo customer of last resort—us. When investors have concerns about the ability of a dealer to fund itself, they are reluctant to roll over their own repo transactions. . . . The PDCF should break that chain of worry by reassuring the clearing bank that the Fed will be there as a lender to fund the repo transactions.”⁶²

By design, the PDCF worked well to save Bear Stearns. As the crisis raged on and investment banks continued to fall victim to credit squeezes, the Fed decided to extend the use of the PDCF instead of letting it expire.⁶³ More importantly, the Fed decided to broaden the capabilities of the PDCF: “Previously, PDCF collateral had been limited to investment-grade debt securities.” But on September 14th, the Fed changed the provisions of the PDCF so that “the collateral eligible to be pledged at the Primary Dealer Credit Facility (PDCF) [was] broadened to closely match the types of collateral that can be pledged in the tri-party repo systems of the two major clearing banks,” (Press release, September 14th, 2008).⁶⁴ In his interview with the FCIC, Dudley explained this expansion: the “PDCF became essentially equivalent to take down the whole,

57 Scott Alvarez, “Authority of the Federal Reserve to provide extensions of credit in connection with a commercial paper funding facility (CPFF).” (FCIC archive, memo to file from Legal Division, 2009), 6. https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-03-09_Federal_Reserve_Bank_Letter_from_Legal_Division_to_Files_Re_Authority_of_the_Federal_Reserve_to_provide_extensions_of_credit_in_connection_with_a_commercial_paper_funding_facility_CPFF.pdf.

58 Alvarez, memo to file from Legal Division, 5.

59 Alvarez, memo to file from Legal Division, 4.

60 Alvarez, memo to file from Legal Division, 9.

61 “Federal Reserve announces establishment of Primary Dealer Credit Facility,” (Board of Governors of the Federal Reserve System, Press Release, 2008). Accessed 20, 2020. <https://www.newyorkfed.org/newsevents/news/markets/2008/rp080316.html>

62 Bill Dudley, “Meeting of the Federal Open Market Committee on March 18, 2008.” (Board of Governors of the Federal Reserve System, 2008), 4. <https://www.federalreserve.gov/monetarypolicy/files/FOMC20080318meeting.pdf>

63 Ben Bernanke, “Transcript of the Federal Open Market Committee Conference Call on July 24, 2008” (Board of Governors of the Federal Reserve System, 2008), 3. Accessed April 20, 2020. <https://www.federalreserve.gov/monetarypolicy/files/FOMC20080724confcall.pdf>

64 “Federal Reserve Board announces several initiatives to provide additional support to financial markets, including enhancements to its existing liquidity facilities,” (Board of Governors of the Federal Reserve System, Press Release, September, 2008). Accessed April 20, 2020 <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080914a.htm>

triparty repo system if necessary.”⁶⁵ Basically, the “PDCF was a complete backstop for tri-party repos,” so that now, any repos that could not be rolled over could be replaced by PDCF loans.⁶⁶

The Fed Expands the PDCF the Night Before the Lehman Collapse:

The Fed knew Lehman Brothers was a systemically large investment bank, and feared its bankruptcy would disrupt markets significantly. Considering this, the Fed expanded its lending capabilities through the PDCF on the night before Lehman’s collapse.⁶⁷ However, immediately after Lehman’s collapse, the Fed explained that they lacked the degrees of freedom to take action. This rationale borders on nonsensical. Under Section 13(3), the Fed had extremely broad legal autonomy, as exhibited by the legal interpretation of the statute and the actions of the Fed prior to their Lehman-decision. With the true legal boundaries of the Fed now empirically defined, we will next explore the second-prong of the Fed’s explanation: Lehman’s insolvency.

Lehman’s Balance Sheet

The state of Lehman’s balance sheets during the crisis has meaningful implications in the Fed’s justification for withholding an emergency capital injection. Professor Laurence Ball’s research highlights that Lehman’s solvency is important, not only because the Fed cites it as a main reason for their decision, but also because it impacts the type of “liquidity support” they needed and was relevant for the bank’s future viability.⁶⁸

Lehman was generally facing the same problem as Bear, AIG, and other powerhouse-firms. Bill Dudley described this problem in his interview with the FCIC: “If people couldn’t value the assets, then there were questions of insolvency with the firms.”⁶⁹ Lehman’s insolvency is often taken for granted. While many people accurately acknowledge that its balance sheet was less than transparent, there are some who simultaneously suggest that Lehman was insolvent. To make both of these arguments at the same time almost like arguing two conflicting ideas; determining Lehman’s solvency by way of assessing incomprehensible balance sheets is a nonsensical endeavor. Regardless of this, even those at the forefront of the financial crisis, such as Hank Paulson, speak of Lehman’s insolvency as though it were fact.⁷⁰ This resolute clarity on Lehman’s condition is just not possible. Even today it is difficult to assess Lehman’s business, but as the market-meltdown flared in 2008, any valuation attempted could have been a shot in the dark. Under normal circumstances, measuring the fundamental value of an asset can be subject to market distortions. The nature of the financial crisis and certain features of Lehman’s balance sheets compounded these challenges.⁷¹

Valuing Lehman Brothers as they teetered between bailout and bankruptcy in 2008 was very difficult, and not just for one reason. For a starting point, I looked at Lehman’s 2008 Q2 10-Q.⁷² My objective was to look at the balance sheet and review their assets and liabilities to ascertain the value of their equity. Lehman reported assets totaling \$639.4 billion. Total liabilities equaled \$613.1 billion and total stockholder equity equaled \$26.3 billion. The sum of Lehman’s liabilities and equity is equal to the bank’s total assets: $613.1 + 26.3 = 639.4$ (or \$639.4 billion, approximately). That exact equation (liabilities + equity = assets) is used to assess a bank’s solvency. Traditionally, a bank is considered insolvent if its liabilities outweigh its assets, or equivalently, if it has negative equity. By definition then, since Lehman’s equity equaled a positive \$26.3 billion, Lehman Brothers was a solvent bank. Lehman never reported a Q3 10-Q to the SEC, but its projected equity for that period was \$28 billion.

Dick Fuld also cited positive equity at around \$28.4 billion in his FCIC interview, although he was

65 Bill Dudley, “Financial Crisis Inquiry Committee Interview.” (FCIC archive). Audio, 31:00. https://fcic-static.law.stanford.edu/cdn_media/fcic-audio/2010-10-15%20FCIC%20staff%20audiotape%20of%20interview%20with%20Bill%20Dudley,%20Federal%20Reserve%20Bank%20of%20New%20York.mp3

66 Bill Dudley, FCIC Interview, Audio, 31:00.

67 Laurence Ball, *The Fed and Lehman Brothers*, 41.

68 Laurence Ball, *The Fed and Lehman Brothers*, 57.

69 Bill Dudley FCIC Interview, Audio, 23:48.

70 Henry Paulson, “Crisis On Wall Street: The Week That Shook The World.”

71 Raymond Hawkins, “Noise.” (Financial and Behavior Economics, The University of California, Berkeley, 2020).

72 United States Securities and Exchange Commission, “Lehman Brothers Holdings Inc. Form 10-Q” (SEC, 2008), 4-6.

accused of using overinflated values for Lehman's assets.^{73, 74} However, findings from Barclays' and Bank of America's due diligence assessment of Lehman, as well as an assessment from consortium members, suggest interesting possibilities for solvency calculations.^{75, 76} Barclays found that \$23-27 billion worth of assets had over-inflated values.⁷⁷ The consortium concluded that assets were overvalued by a total sum of \$27-30 billion.⁷⁸ Bank of America had similar findings.⁷⁹ The CEO of Merrill Lynch also gave an estimate of asset overvaluations to the FCIC; his numbers were \$15-25 billion.⁸⁰ Professor Ball analyzed Lehman's balance sheet in his own comprehensive research. He merged the ranges of mismeasurements together to get a broad projection for asset overvaluation of approximately \$15-30 billion. Professor Ball used Lehman's projected \$28 billion of equity (end of fiscal 2008 Q3) to show that if this amount were overvalued by \$15-30 billion, then the "real" equity value was approximately -\$2 billion to \$13 billion.⁸¹ This calculation shows that Lehman's range of equity was far more positive than it was negative, suggesting that it was very likely Lehman had positive equity, or in other words, was a solvent bank.

This demonstration shows that even when "overinflated asset values" are used to calculate Lehman's equity, the bank could have easily been solvent. Juxtaposing this is the Fed's insistence on Lehman's insolvency. In conclusion, this illustration does not try to argue that the Fed was right or wrong about Lehman's financial state, but rather that they did not have the ability to make such a severe claim. The range of numbers assembled are estimations based on perceived value. As the next two points will show, measuring the solvency of a bank is a subjective exercise that is bound to involve a certain level of judgement.

1. Valuation practices involve a degree of subjectivity that is exacerbated in crisis:

Obtaining the fundamental value of assets is a perennial challenge that touches all realms of finance, even under normal circumstances. During a financial crisis, market perceptions are mired with panic: these distorted perceptions can drive a perceived market value further away from its fundamental value. Additionally, Lehman's complex investments and structured accounting practices made it even harder to obtain an accurate measure of the bank's assets, and therefore, its value. To add one more dimension of complexity, more than one method can be used to evaluate a bank's solvency; each approach relies on somewhat different inputs. For example, a mark-to-market valuation focuses on adjusting the value of an asset to reflect its current market price, while a fundamental analysis is a method that focuses on an asset's intrinsic value. In theory, it should not matter which approach is used; each method should be able to lead to the same conclusion: either solvent or insolvent. However, because of the confounding effect of the financial crisis and Lehman's own chaotic state, when it came time to gauge Lehman's financial health, these different valuation methods could yield discordant conclusions. In other words, Lehman's insolvency is at the least unclear, and arguably impossible to ascertain. Professor Ball corroborates this point: "with mark-to-market valuation of assets, solvency is a close call: it appears that Lehman's true equity was near zero. With valuation based on fundamentals, Lehman was probably solvent."⁸²

Although there is substantial reason to believe that Lehman's solvency was inconclusive, in Bernanke's letter to the FCIC, he says:

"After extensive analysis, the Lehman Bankruptcy Examiner, Mr. Anton Valukas, determined that

73 Richard Fuld, "Written Statement of Richard S. Fuld, Jr. Before the Financial Inquiry Commission." (FCIC, 2010), 6.

74 Laurence Ball, *The Fed and Lehman Brothers*, 61.

75 Note: Barclays and BofA began due diligence in preparation for a potential take-over of Lehman.

76 Note: The Fed assembled "the consortium;" it was comprised of Lehman's close business associates.

77 Anton Valukas, "Lehman Brothers Holding Inc. Chapter 11 Proceedings Examiners Report, Volume 5, Section III.B: Avoidance Actions; Section III.C: Barclays Transaction." (Jenner and Block, 2011) 2114, fn 7788.

78 Anton Valukas, "Lehman Brothers Holding Inc. Chapter 11 Proceedings Examiners Report, Volume 4, Section III.A.5: Secured Lenders, Section II.A.6: Government." (Jenner and Block, 2011). 1286-1287, fn 4875-4877.

79 Kenneth Lewis, Interview before the Financial Crisis Inquiry Committee, (FCIC archive, 2011).

80 Laurence Ball, *The Fed and Lehman Brothers*, 66.

81 Laurence Ball, *The Fed and Lehman Brothers*, 62-68.

82 Laurence Ball, *The Fed and Lehman Brothers*, 61.

there is sufficient evidence to show that Lehman Brothers Holdings Inc. (“LBHI”) was insolvent as of September 8, 2008, and perhaps was insolvent as early as September 2, 2008.”⁸³

In regards to Bernanke’s claim, it is hard to say this much is true when it was an incomplete summary of facts. In actuality, this reasoning ignores other key information that affects the conclusion. Again leaning on Ball’s work:

“For most asset classes, the [Valukas] Report ‘finds insufficient evidence to support a finding that Lehman’s valuations were unreasonable during the second and third quarters of 2008,’ (p. 214).⁸⁴ [...] However, in two cases the [Valukas] Report finds ‘sufficient evidence to conclude that certain assets were not reasonably valued.’ [...] The [Valukas] Report emphasizes, however, that its review of Lehman’s assets is not comprehensive, and does not yield conclusions about total overvaluation or Lehman’s solvency.”⁸⁵

Ball argues that: “Bernanke cites p. 1573 of the Valukas Report, which summarizes the solvency analysis of Duff and Phelps. [But] Duff and Phelps’s “market-based” method is not a credible way to assess solvency.”⁸⁶ This, of course, is only Ball’s argument, but it is important to now circle back to the argument of this section of the paper: on its most basic level, when conducting a valuation, different inputs can yield different outputs. The exchange of views between the FCIC, Bernanke, the Valukas Report, and Ball’s subsequent commentary highlights the high-level of interpretation that goes into company valuations. A myriad of sources, all experts in their fields, nevertheless came to conflicting conclusions. This spectrum of results speaks to the uncertainty and subjectivity in Lehman’s perceived insolvency. The many challenges of assessing Lehman’s solvency, as validated by an inability to conclusively measure its equity, should persuade us to accept any estimate with trepidation. Given this uncertainty, the Fed’s insistence that Lehman was insolvent is an oversimplification.

2. Complex, risk-prone assets trigger confusion between illiquidity and insolvency:

Lehman was heavily invested in non-agency securities backed largely with subprime loans connected to the real estate market. When the FCIC questioned Lewis Ranieri, the man who revolutionized non-agency securitization, they asked, “This stuff is so complicated, how is anybody going to know?”⁸⁷ The bulk of Lehman’s assets came from these confusing investment tools, like non-agency MBS (MBS that were not guaranteed by government-sponsored Enterprises like Freddie and Fannie), derivative products, commercial real estate and full mortgages,⁸⁸ and they made it more challenging to assess the firm’s worth.

Once the crisis hit, these assets were extremely undesirable because their value was largely derived from the housing market. This lack of demand is what hurt Lehman so badly. Without their usual supply of credit, they were forced to prepare for bankruptcy. However, Lehman’s illiquidity crisis and subsequent, rapid-fire bankruptcy did not necessarily mean they were insolvent. A solvent bank can experience a liquidity crisis. Thus, this crisis did not necessarily signify that Lehman Brothers Holdings Inc. (the parent company) and its numerous subsidiaries were all entirely insolvent. The only certainty was that, as their sources of liquidity evaporated, Lehman wound up beached. Lehman’s inability to operate come Monday did not necessarily indicate a solvency crisis; it may have been a pure liquidity crisis. This misconception around the distinction between illiquidity and insolvency seemed a deciding factor in the Fed’s decision on how they handled Lehman.

83 Ben Bernanke, follow up email to Testimony before the FCIC. (FCIC archive, 2010), 13. https://fcic-static.law.stanford.edu/cdn_media/fcic-testimony/TBTF/Chairman%20Bernanke%20Follow%20Up.pdf

84 Note: The Report reaches this conclusion for Lehman’s residential a commercial mortgages, mortgage-backed securities, collateralized debt obligations, and derivatives.

85 Laurence Ball, The Fed and Lehman Brothers, 69-70.

86 Laurence Ball, The Fed and Lehman Brothers, 65.

87 Financial Crisis Inquiry Commission, Setting the Stage: Subprime Lending, “Mortgage Securitization.” (FCIC: The Report, 2011). Accessed March 30, 2020, Part II: Chapter 5. http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_chapter2.pdf.68

88 United States Securities and Exchange Commission, “Lehman Brothers Holdings Inc. Form 10-Q” (SEC, 2008), 4-6.

The following is a deeper analysis of the ambiguity around Lehman's balance sheets and how it led to confusion between insolvency and illiquidity.

Further Analysis of Lehman's Form 10-Q, submitted to the SEC:

The bulk of assets on Lehman's Q2 10Q fell into three buckets: ⁸⁹

- \$269 billion in "Financial instruments and other inventory positions owned" (securities, derivatives, private equity, commercial real estate, whole mortgages loans),
- \$295 billion in "Collateralized agreements:" "securities purchased under agreements to resell" and "securities borrowed" ("agreement to resell" refers to "reverse repos," according to the Valukas report, Appendix 17;⁹⁰ both of these subcategories refer to an investment bank practice by which Lehman could lend cash to another investment bank in exchange for securities, and simultaneously enter a deal to return those securities in exchange for their cash back. The expected return of cash is included in Lehman's assets, while the return of securities is not listed at all)
- \$42 billion in "Receivables" (refers to cash owed to Lehman through various contracts)

The \$269 billion in financial instruments are among the most difficult to assess for two enmeshed reasons: (1) these assets were inherently dubious and more risky, and (2) they were backed by spurious assets that were themselves mispriced and risky. When the housing market collapsed, these were the assets that incurred the most damage. Because of this, Lehman could not get its usual investors to continue supplying credit. As demand dissipated and value continued to plummet, investors' fear was validated, kick-starting a vicious, downward-spiraling cycle. The panic created by this liquidity crisis exacerbated the challenges around evaluating Lehman's balance sheet.

Even the masters of financial economics seemed to be confused between illiquidity and insolvency. Thomas Baxter, General Counsel of the FRBNY, argued to the FCIC that even Lehman's board of directors must have known they were insolvent because they were preparing for a Chapter 11 Bankruptcy.⁹¹ But this conclusion depends on erroneous logic that shows a basic confusion over illiquidity and insolvency. Lehman was preparing for bankruptcy because it was sharply aware of its illiquidity issues that arose from their toxic securities and derivatives. The lack of demand for these repellent assets crushed their market value, making Lehman's assets appear to be worth less than they probably were fundamentally. This issue wasn't just hurting Lehman. In fact, Geithner speculated that if every firm had been "forced to mark all its assets to their depressed market prices during a selling frenzy," then "just about every financial firm would've been insolvent."⁹² But of course, not all firms really were insolvent. Even if it appeared that way in the midst of the crisis, most firms, potentially including Lehman Brothers, were just struggling to find a supply of liquidity. Clarity around the illiquidity vs. insolvency issue is of paramount importance, as the Fed uses Lehman's insolvency as the basis for their inability to legally extend any credit. If, on the other hand, Lehman was only struggling with a liquidity crunch, the Fed's entire argument could be unraveled. Not only does this analysis illustrate the impossibility of the type of certainty found in the Fed's argument, it further shows that there seemed to be major misconceptions around even the most basic financial concepts.

Part II illustrated the extent of the Fed's legal autonomy and the limitations that thwarted their ability to decipher between illiquidity and insolvency. In reality, the Fed could have legally bailed out Lehman with credit supplied through the PDCF, and they even considered doing so before ultimately rejecting a bailout option. We can now move on in an analysis of the real reasons they chose to let Lehman fail.

89 United States Securities and Exchange Commission, "Lehman Brothers Holdings Inc. Form 10-Q" (SEC, 2008), 4-6.

90 Laurence Ball, *The Fed and Lehman*, 59.

91 Thomas Baxter, follow up email to Testimony before the FCIC. (FCIC archive, 2010), 3. https://fcic-static.law.stanford.edu/cdn_media/fcic-testimony/TBTF/Thomas%20Baxter%20Follow%20Up.pdf

92 Timothy Geithner, *Stress Test*, 206.

Part III: The Real Reasons

To explore the real reasons that prompted the Fed to abort plans for a Lehman bailout, I again rely on historical materials provided by the Fed and the collection of documents in the Financial Crisis Inquiry Commission (FCIC) archive. My general insights were shaped by reading the transcripts of Federal Open Market Committee (FOMC) meetings and conference calls. More specific arguments stem from various emails and memos that circulated amongst the Fed, the Treasury Department, and other important leaders in business.

The Fed's ex-ante Deliberation

The Fed worked around the clock in the months leading up to Lehman's failure. Their unrelenting effort to contain the crisis revolved around potential solutions for Lehman, discerning the pros and cons of its demise, as well as the trajectories of other peer financial institutions. Rarely ever did the discussion circle back to the Fed's inability to act based on Section 13(3). In fact, throughout the volumes of documents I came across in my research endeavors, only a handful mentioned Section 13(3). Moreover, the few emails that did mention Section 13(3) didn't discuss the statute as a legal limitation. On the contrary, one email laid out two different ways the Fed could lend to Lehman by utilizing the authority granted by Section 13(3). FRBNY's Lucinda Brickler forwarded an email in the July before Lehman's collapse that included the following:

“You will likely find the third part interesting--which analyzes the current state of Lehman's triparty collateral. Although this document refers to a conditional non-recourse loan to the bank, a 13(3) loan directly to the dealer seems to be a better idea. We are talking through collateral, margin, legal agreement, operating issues, etc., today to put together a plan in the event it becomes necessary to consider this.”⁹³

The Fed and Treasury Department, together with the collection of Lehman's potential buyers and investors, convened repeatedly to exact an end to the crisis. As I compared the pieces of correspondence that circulated during this ex-ante period of deliberation, the real forces that dominated the discussion became clear. I noticed five persistent concerns that ultimately swayed the Fed to withhold a bailout from Lehman. Once the optimal solution of a private option was deemed impossible to arrange, the Fed contemplated the only feasible option left: a bailout from the Federal Reserve Bank. Ultimately, however, there were too many grave concerns surrounding this option. These concerns, which will now be discussed, are the real reasons why the Fed did not save Lehman Brothers.

Before summarizing these five factors, it is important to emphasize how thoroughly the Fed tried to save Lehman. Many potential plans were proposed regarding how the Fed could save Lehman, none of which were hindered by conversations regarding legal capabilities. This point illustrates how little attention the Fed paid to their “lack of legal authority,” though now, they cite it as the main issue. In his letter to the FCIC, Ben Bernanke wrote, “there was no doubt in our minds that it [Lehman's failure] would be a calamity, . . . and that, you know, we should do everything we could to save it. We could not. We did not have the legal authority to save it.”⁹⁴ In emphasizing this yet again, Bernanke maintains that the Fed was powerless to save Lehman. But this is simply not the case. From the moment the real estate market crashed, up until the final hours before Lehman's demise, the ex-ante discussion shows a variety of potential legal actions that absolutely could have been taken. What follows is a summary of the five legitimate reasons why the Fed chose to let Lehman fail – all of which persistently color the Lehman-deliberation ex-ante. The Fed's legal limitations are not among them.

⁹³ Lucinda Brickler, “FRBNY's latest thinking about how the Fed might provide liquidity to Lehman through PDCF (or an expanded PDCF).” (FCIC archive, email July 11, 2008), 1. https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-07-11_Federal_Reserve_Bank_Email_from_Kieran_Fallon_to_Rich_Ashton_and_Mark_VanDerWeide_Re_Tri-party_variant.pdf

⁹⁴ Ben Bernanke, “Closed Session,” (FCIC archive, 2009), 26. https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/FCIC%20Interview%20with%20Ben%20Bernanke,%20Federal%20Reserve.pdf

1. Bagehot's Dictum

In economics, "Bagehot's Dictum" refers to economist and political analyst, Walter Bagehot's written rule in his book, *Lombard Street*: "In a crisis, lend freely, but at a penalty rate against good collateral to institutions that are illiquid but not insolvent."⁹⁵ In a sense, Section 13(3) of the FRA is a manifestation of Bagehot's Dictum. The theory Bagehot puts forth has been followed by several central banks for generations, because in principal and in practice, the rule makes sense.⁹⁶ As we have seen, good banks may fall victim to liquidity crises and present strong cases for justifiable bailouts that are ultimately to the benefit of the larger financial system. By the same token, bad banks that are indeed insolvent and would only propagate risk in the economy would not warrant a justifiable bailout loan from the Central Bank. Bagehot's rule is a strong and beneficial economic principle based on this type of distinction.

In the Lehman decision, the Fed's challenge was not determining whether or not it made sense to implement Bagehot's rule, but rather whether Lehman was illiquid or insolvent. Was it a good bank or a bad bank? Throughout their ex-ante discussion, the Fed grappled with this conundrum, wary of Bagehot's Dictum and concerned about the dangers of mismanagement. Recall, in addition to regulating and supervising banks, the duties of the Federal Reserve include maintaining economic stability and mitigating risk in the financial system of the United States. When contemplating the decision to bailout Lehman, the Fed had to take long term effects into consideration as well as the more pressing short term consequences. One realistic explanation for their decision can be gathered from their ex-ante discussion: they did not want to be responsible for saving a bad bank, one that would only generate more toxicity in the system years down the line. As such, despite Bagehot's general advice to lend broadly, the Fed chose to err on the side of caution and deem Lehman insolvent. Part II already discussed the unreliability of a judgment declaring Lehman insolvent, based on the severe limitations that fetter any conclusion reliant on asset valuations at the time of crisis. Nevertheless, Lehman's potential insolvency coupled with the Fed's dutiful consideration of Bagehot's Dictum was a noteworthy feature of their ex-ante discussion and a persistent concern that influenced the Fed's thinking.⁹⁷

2. An Abundance of Existing Aid

The Fed had already taken extensive creative measures to increase the flow of credit in the financial system.⁹⁸ In an interview that took place in 2018, Tim Geithner reiterated how the Fed's initiative, "included the creation of Term Auction Facility, the invocation of Section 13(3) to establish the Term Securities Leading Facility,⁹⁹ and the approval of the Primary Dealer Credit Facility," and how during the, "time between administrations, we [the Fed] had thrown a tremendous financial force at this – recapitalized 75% of the financial system – trillions and trillions of behind the financial system and it wasn't enough. It was collapsing, the system was still frozen."¹⁰⁰ Given the enormous amount of existing aid that the Fed had already provided, and the terrible state of Lehman's books, any solution seemed too generous. How much more could the Fed do before they pushed the limits of

95 Walter Bagehot, *Lombard Street: A Description of the Money Market*. (1873)

Note: Insolvency occurs when a bank's assets are worth less than its liabilities. On the other hand, illiquidity issues arise when a bank's creditors (or lenders) panic and withhold credit. Bagehot's rule distinguishes the two specifically because even an illiquid bank can have assets that could be used for collateral.

96 Brian Madigan, "Bagehot's Dictum in Practice: Formulating and Implementing Policies to Combat Financial Crisis." (Board of Governors of the Federal Reserve System, Speech, 2009). <https://www.federalreserve.gov/newsevents/speech/madigan20090821a.htm>

97 Series of written testimony, closed sessions and follow-up correspondences from various members of the Fed discussing concerns over insolvency. (FCIC archive, 2011). <http://fcic.law.stanford.edu/resource>.

98 Emi Nakamura, Pierre Yared, and Jack Lysohir, *Lehman Brothers: Too Big to Fail?* (Columbia Business School, 2016), 5.

99 Note: The TSLF allowed lending out treasury securities in exchange for other collateral, like Fannie and Freddie MBS and private-label MBS, in addition to the tradition exchange of other types of Treasuries.

100 Timothy Geithner, "Crisis On Wall Street: The Week That Shook The World."

reason?

It would be wrong to say the Fed stood by as they watched Lehman crash to its demise. On top of everything it did for the economy at large, the Fed persevered in trying to save Lehman up until the last moments. Among the many correspondences exchanged regarding the Lehman issue (all found in the FCIC archive), Scott Alvarez, (the same man who analyzed the legality of the Fed's actions within the band of Section 13(3)), sent one email in June, 2008 that outlined a plan for Lehman referred to as the "Lehman Good Bank/Bad Bank" idea.¹⁰¹ But despite efforts like these, the Fed could not find an option that sat comfortably on their conscience. While they could have done something to save Lehman, any option seemed to tip the scale of justice too far in the favor of the reckless bank. Could they really justify an enormous bailout to yet another crooked firm? In the end, the answer was no. The Fed had already done so much, and saving Lehman would amount to too little. To the Fed, Lehman was worth letting go in order to spare something bigger. Already, the actions the Fed took to calm the thrashes of crisis had become the chopping block upon which people and politicians would lay the central bank's head.

3. Political and Social Pressures

Talks of the Fed bailing out Lehman Brothers generated major political and social friction. The Fed took dramatic action in 2008 to mitigate the crisis. The financial intervention and aid that ensued before the Lehman issue was unprecedented in its size and scope. For this reason, the Fed officials were successful in containing the crisis in a significant way, but they also were successful in garnering major backlash. Politicians had their own agenda and their own set of standards; meanwhile, the Fed was operating with zero restraints and little concern for what those standards were. This didn't sit well with Congress. One senator claimed the Fed's behavior was a display of "socialism,"¹⁰² which was by no means a compliment. Politicians were uncomfortable with the lack of power-restraints on the Fed, and they pressured Bernanke and others to think seriously before taking any other dramatic action, such as bailing out a pitifully undercapitalized firm like Lehman.

When it came to bailing out Lehman Brothers, Bernanke, Geithner, and particularly Paulson, were under political rapid fire. Paulson had been deemed "Mr. Bailout" after his influence over the nationalization of Fannie and Freddie, and his proposal for TARP, which apparently left congress shell-shocked. "This proposal is stunning and unprecedented in its scope – and lack of detail I might add ... I can only conclude that it is not just our economy that is at risk, but our Constitution as well," noted Senate Banking Committee Chairman Chris Dodd in response to Paulson's proposal.¹⁰³ After already having taken so many liberties in an effort to resuscitate the economy, the Fed officials and Paulson were hard pressed to find an easy justification they could use to assuage politicians' concerns in bailing out Lehman Brothers too.

As for the perspective of the people, the Fed was in a no win scenario. To Americans, it looked like the Fed was bailing out the "crooked Wall Streeters" who were too busy risking the life-savings of average families to notice that they were destroying the very foundation of the American economy. On the other hand, if the Fed did not bail out these firms, the economy would get exponentially worse on a global level, and the American people who felt any amount of injustice would also feel the sharp stab of a financial depression. Geithner has since put forth that, "the truly moral thing to do during a raging financial inferno is to put it out."¹⁰⁴ Although this sort of rhetoric guided the Fed most of the time, when it came to rescue Lehman, the public outcry against corruption grew too loud. Adding insult to injury, Paulson, who was himself the ex-CEO of Goldman Sachs (the largest investment bank in 2008), also had a brother working in a high-ranked position at Lehman Brothers.

101 Scott Alvarez, "Lehman Good Bank/Bad Bank idea discussed last night." (FCIC archive, email to Kieran Fallon, 2008). http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-07-15_Federal_Reserve_Bank_Email_from_Scott_Alvarez_to_Kieran_Fallon_Re_Lehman_Good_Bank_Bad_Bank_idea_discussed_last_night.pdf

102 Emi Nakamura, "Lehman Brothers: Introduction" (Macroeconomic Policy from the Great Depression to Today, University of California, Berkeley, 2019).

103 Timothy Geithner, Stress Test, 208.

104 Timothy Geithner, Stress Test.

President George Bush had a cousin at Lehman in a similar role.¹⁰⁵ The personal associations with these major investment banks made a bailout look motivated by self-interest. In the media and among the general public, a Lehman bailout started to resemble a family bailout. It looked terribly corrupt, and “Mr. Bailout” didn’t want anything to do with it.

The Fed really did try to come up with solutions for Lehman Brothers, and they were successful insofar as creating those solutions (i.e. the Fed did create the PDCF which it could have used to bailout Lehman, legally no less). However, the staunch political and public backlash produced deeply-rooted reservations in the Federal Reserve, contributing to the underlying pressure that stopped the Fed from saving Lehman.

4. Two Bad Banks, One Lifeline, and a Tough Call

The Fed had a lot of balls up in the air, and Lehman Brothers was but one of them. In his letter to the FCIC, Bernanke said: “If you look at the firms that came under pressure in that period. . . only one . . . was not at serious risk of failure. [...] So out of maybe the 13 -- 13 of the most important financial institutions in the United States, 12 were at risk of failure within a period of a week or two.”¹⁰⁶ The lack of firms that could provide a private solution forced the Fed to decide who really needed saving. In reality, Bank of America was the only buyer at the time of Lehman’s imminent bankruptcy, meaning the Fed had one lifeline to throw at an investment bank. The question was, which bank would it be? Lehman Brothers was not the only investment bank in trouble. Merrill Lynch was in the same sinking boat, and the Fed knew that if a private buyer went to Lehman, then Merrill would be left without a rescuer. In the Fed’s analysis ex-ante, they appeared to worry more about Merrill than Lehman, not just because Merrill was bigger, but for financial reasons.

In Bill Dudley’s assessment¹⁰⁷ during an FOMC meeting, “in contrast to Bear Stearns’s experience in mid-March, Lehman’s short-term financing counterparties have generally proved to be patient. . . The financing backstop provided by the Primary Dealer Credit Facility has been cited by many counterparties as a critical element that has encouraged them to keep their financing lines to Lehman in place.”¹⁰⁸ Meanwhile, projections for Merrill looked more grim. The following is the report Mr. Dudley provided to the FOMC in that same meeting:

“Regional banks have also come under considerable strain recently. Deterioration in their construction lending, commercial real estate, and residential mortgage books has caused many banks to raise their loan-loss provisions sharply. Potential acquirers of troubled regional banks have been discouraged by the accounting requirement that these banks must mark down the assets of the bank that they’re acquiring to the current market value at the time of the acquisition.

The financial guarantors have also been under stress. Both Standard & Poor’s and Moody’s recently downgraded Ambac and MBIA. The Moody’s downgrade of MBIA was particularly sharp—five notches to A2 from AAA. These downgrades of the monoline guarantors have a number of important implications. First, the firms that have purchased protection from Ambac and MBIA will have to take significant write-downs.”¹⁰⁹

Merrill Lynch had among the highest exposure to these “monoline guarantors,”¹¹⁰ which considering the decision sitting before the Fed, became significantly important information. The Fed’s portrayal of Lehman

105 Emi Nakamura, Pierre Yared, and Jack Lysohir, *Lehman Brothers: Too Big to Fail?* (Columbia Business School, 2016), 11.

106 Ben Bernanke, “Closed Session.” (FCIC archive, 2010), 24.

107 Note: Again, underlining was not included in the original transcript; it was added for emphasis on key details.

108 Bill Dudley, “Meeting of the Federal Open Market Committee on June 24-25, 2008.” (The Board of Governors of the Federal Reserve System, 2008), 4-5. <https://www.federalreserve.gov/monetarypolicy/files/FOMC20080625meeting.pdf>

109 Bill Dudley, “Meeting of the Federal Open Market Committee on June 24-25, 2008.” (The Board of Governors of the Federal Reserve System, 2008), 4-5. <https://www.federalreserve.gov/monetarypolicy/files/FOMC20080625meeting.pdf>

110 Bill Dudley, “Meeting of the Federal Open Market Committee on June 24-25, 2008,” 4-5.

in contrast to Merrill in this particular meeting hints at their general perception of the two investment banks at the time, although their analysis went far beyond this. While this discussion took place in June, and the Fed's decision occurred in September, it appears that from the early onset, the Fed felt more concerned about rescuing Merrill.

Based on the underlying sentiment and portrayals of Lehman and Merrill in this June projection, one could conclude that if the Fed had to make a choice on the spot about which bank to broker a private deal for, they would likely choose Merrill. As it turned out, that's exactly what they decided to do. The Fed let Lehman go under, instead handing the lifeline to Merrill Lynch. On September 15th, Lehman declared bankruptcy and Merrill sold itself to Bank of America. In the Fed's judgment, they were simply acting with prudence and minimizing the losses.

5. Moral Hazard

The Federal Reserve could have legally provided credit to Lehman through its Primary Dealer Credit Facility. But just because it could have, does not mean it was the right thing to do. The transcripts of FOMC meetings in the months leading up to Lehman's bankruptcy reveal that moral hazard was a major concern, and likely a key reason the Fed made their choice. Moral hazard introduces a dysfunctional dynamic between the Federal Reserve, who is the lender of last resort and thus can provide emergency bailouts, and the banks, who are in charge of their own risk management. If banks knew they would always be bailed out by the Fed, they would have very little incentive to limit risk. In a sense, the fact that the Fed exists as a lender of last resort increases the chance that banks will enter a situation in which they need a lender of last resort.¹¹¹

At the same time, it was very important for the Fed to mitigate the financial crisis by creating and implementing lending facilities, like the PDCF. Lending through these channels had already eased the crisis around Bear Stearns, and for the same general reason, Bernanke argued in a FOMC meeting for the extension of their existence: "given the state of the markets and given that I think we still face some systemic risks, I am quite inclined at this point to ask the Board to extend the PDCF and the FOMC to extend the TSLF over year-end, which is a difficult period—subject, of course, to the continued finding of unusual and exigent circumstances [language from Section 13(3) confirming the legality of Bernanke's suggested extension]."¹¹² In April, Fed official Mr. Mishkin echoed Bernanke's suggestion with praise for the actions [meaning the creation and use of lending facilities like the PDCF] of the Fed: "we had a major institution get into trouble, but because of our actions, it didn't blow up the world. There is an issue, of course, of potential cost and moral hazard going forward, but I think it has had the effect of calming down the markets in a very substantial way."¹¹³

Although their efforts had been working, there came a time when the issue of moral hazard became too pronounced. The Fed always tries to consider long time-horizons, but the high stakes of the crisis (which were compounded by the distressed political system) forced the Fed to weigh the present moment with more importance. Fed official Mr. Kohn brought that point up in a meeting before the Lehman decision was made: "Crises are always difficult. You get into a crisis, and the near-term costs are much more palpable than the long-term costs that might be there. So it is always hard to say "no." From this, it follows that, up to this point, the Fed hadn't been saying no. They had already either bailed out or facilitated a deal for Bear Stearns, Citi, and Countrywide. In addition, they oversaw the government takeover of Freddie Mac and Fannie Mae, on top of already providing them a line of emergency credit. What signal would they send if they saved yet another massive financial player? The Fed did not want the barely justifiable rescue of Lehman to become another chip on their shoulder and the de facto expectation for how they'd deal with systemically important firms in the future.

111 Emi Nakamura, "Theory of Bank Bailouts." (Macroeconomic Policy from the Great Recession to Today, University of California, Berkeley, 2019).

112 Ben Bernanke, "Meeting of the Federal Open Market Committee on April 29-30, 2008" (The Board of Governors of the Federal Reserve System, 2008) <https://www.federalreserve.gov/monetarypolicy/files/FOMC20080430meeting.pdf>

113 Frederic Mishkin, "Meeting of the Federal Open Market Committee on April 29-30, 2008" (The Board of Governors of the Federal Reserve System, 2008) <https://www.federalreserve.gov/monetarypolicy/files/FOMC20080430meeting.pdf>

AIG was also in a perilous state, and was probably the biggest concern for the Fed come September.¹¹⁴ On Sunday, September 14th, the day before Lehman failed, FRBNY's Alejandro LaTorre emailed Geithner with a list of pros and cons for letting AIG fail, as well as other analytics.¹¹⁵ In a subsequent follow-up email to Geithner, LaTorre attached a document with "The Key Differences between Impact of AIG and Lehman Failure," and explained why "AIG's failure is more systemic in nature due to size, franchise, and, the wholesale and retail dimensions of its business."¹¹⁶ The Fed had already done a lot in the way of bailing out banks and supplying credit to problematic firms, yet they knew they'd have to do something for AIG, or the consequences would be irreconcilable. By July, Mr. Mishkin changed his tune: "I do worry about the issue of creating the kind of moral hazard from an idiosyncratic viewpoint, ... So we have to think very seriously about the temporary nature of many of these measures." The risk of moral hazard pushed the Fed to cut the bailouts off somewhere. Knowing that an AIG bailout was more pressing, the Fed drew the line right before Lehman's feet.

The Edge of Reason

Overall, trying to solve the Lehman issue in the midst of the broader financial crisis pushed Fed officials to their edge. They began to sense the boundary of how far they would go, not because of any legal limitations, but because of political and social pressures, apprehension over moral hazard, and concerns for the well-being of the financial system. Would bailing out Lehman do more good or harm? Ex-ante, that much was up for debate: it was a matter of forecasts and expectations. All the Fed knew going into the decision was that a wind-down of Lehman would prove far more complicated than Bear Stearns,¹¹⁷ there were great risks involved, and that Lehman's rescue would probably be insufficient to end the financial crisis. It would also further deplete the Fed's arsenal of resources. Going into the decision, there were just too many reasons to let Lehman fall.

In the end, the Federal Reserve succumbed to the pressures that thwarted a bailout for Lehman. While they knew that Lehman's failure would have cascading ramifications, there was an even longer list of reasons to accept this outcome, which superseded the former. The Fed could have legally lent to Lehman through the PDCF, like it did for Bear Stearns, and thus evaded the darkest depths of crisis for at least a little while longer. However, even though a bailout would have been legally justified, the Fed viewed it as a reckless decision, one that would not be financially or politically justified. To this end, the Fed made what they thought was the optimal decision.

Part IV: Conclusion

On Transparency and Accountability ...

Bernanke once wisely pointed out that "economists are criticized for not being able to predict the future, but, because the data are incomplete and subject to revision, we cannot even be sure what happened in the recent past. Noisy data make effective policy making all the more difficult."¹¹⁸ The 2008 financial crisis made effective policy action an insurmountable challenge for the Federal Reserve. In Lehman's case, trying to determine if a

114 Timothy Geithner, Stress Test, 206-212.

115 Alejandro LaTorre, "Pros and Cons of AIG lending." (FCIC archive, 2008). http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-09-14%20FRBNY%20Alejandro%20LaTorre%20e-mail%20message%20to%20Timothy%20Geithner.pdf

116 Alejandro LaTorre, "Systemic Impact of AIG Bankruptcy" (FCIC archive, Attachment to FRBNY Internal Email from Alejandro LaTorre to Geithner) Accessed April 25, 2020. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-09-16%20Systemic%20Impact%20of%20AIG%20Bankruptcy%20attachment%20to%20FRBNY%20internal%20email%20from%20Alejandro%20LaTorre%20to%20Geithner.pdf

117 Rita C Proctor, "Financial Markets Conference Call." (FCIC archive, Email September 11, 2008). Accessed April 12, 2020. https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-09-11_Federal_Reserve_Bank_Email_from_Rita_C_Proctor_to_Chairman_Re_AM_Financial_Markets_Conference_Call_9-11-08.pdf

118 Ben Bernanke, The Courage to Act: A Memoir of a Crisis and Its Aftermath, (W. W. Norton & Company, 2015) online excerpt. https://www.goodreads.com/author/quotes/260253.Ben_S_Bernanke

bailout would have done more to help or harm the system was like trying to decide if a joke was funny without ever hearing the punchline. The Great Recession presented a vast array of obstacles and dilemmas to the Fed, forcing them into a position where they chose to minimize losses over all other options. Lehman Brothers took the bullet.

In 2008, the Fed was not trying to quell just one fire; they were in the midst of a raging financial inferno. Knowing there would be casualties regardless of any degree of legal freedom or financial might, the Fed made a judgement call: a subjective decision to let Lehman fail. The Fed had their reasons for this decision, but a legal constraint was not a valid reason among them. Despite their insistence on the contrary, the Fed possessed the legal authority to bailout Lehman Brothers under Section 13(3) through the expanded lending capabilities of the Primary Dealer Credit Facility. To suggest otherwise is nothing short of dubious.

The Fed also argues that Lehman Brothers was an insolvent bank. However, they confuse the concept of insolvency with illiquidity. While Lehman was certainly illiquid, their solvency was much more ambiguous. The muddy waters of crisis mired the measurements of Lehman's assets to the point of illegibility. Again, to pose Lehman's insolvency as a fact is misleading by nature.

In reality, the Fed's decision to let Lehman fail was guided by a combination of legitimate financial concerns and constraints. They were also influenced by some inadmissible political and social pressures. These were the real reasons they did not bail out Lehman Brothers. The Fed's explanations for their Lehman decision are thus spurious.

This conclusion brings forth interesting if not unsettling implications about the transparency and accountability of the Federal Reserve. As the Fed moved from the chapter of crisis to policy reform, Bernanke spoke on behalf of the Federal Reserve, advocating that, "it is crucial that we maintain the ability of central banks to make monetary policy independently of short-term political influence. In exchange for this independence, central banks must meet their responsibilities for transparency and accountability."¹¹⁹ Unfortunately, the Fed fell short of this responsibility. In his final remarks as Chairman of the Federal Reserve, Bernanke commemorated his pledge to transparency: "Fostering transparency and accountability at the Federal Reserve was one of my principal objectives when I became Chairman in February 2006."¹²⁰ During the aftermath of the Lehman crisis, this objective seemed to be eclipsed by other pressures. Comparing the Fed's ex-post explanations with the ex-ante evidence reveals an alarming discrepancy. The Financial Crisis Inquiry Commission pushed the Fed and others related to the matter on this issue, trying to understand the string of events and the Fed's response. Their efforts lay in vain.

The Fed delivered a spectacularly successful response to the catastrophic housing market meltdown and subsequent recession. But their triumphs are tainted by the unpalatability of what appears to be deceit. The underlying issue is not the Fed's decision to let Lehman fail. The problem lies within the Fed's inability to present a valid narrative of their actions. Their explanations are wrought with erroneous economic and legal arguments. When pressed to explain, the Fed puts its hands in the air and resigns its voice. If we are to entrust the wellbeing of our economy to the Federal Reserve, then as Bernanke says, transparency and accountability are indispensable. Given these stakes, there is work to be done.

119 Ben Bernanke, "Central Bank Independence, Transparency, and Accountability," Institute for Monetary and Economic Studies International Conference, Japan (2010), 13.

120 Ben Bernanke, "The Federal Reserve: Looking Back, Looking Forward," Annual Meeting of the American Economic Association, Pennsylvania (2014), 1.

Bibliography

- Alvarez, Scott. "Authority of the Federal Reserve to provide extensions of credit in connection with a commercial paper funding facility (CPFF)." FCIC archive, memo to file from Legal Division, 2009, 6. https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-03-09_Federal_Reserve_Bank_Letter_from_Legal_Division_to_Files_Re_Authority_of_the_Federal_Reserve_to_provide_extensions_of_credit_in_connection_with_a_commercial_paper_funding_facility_CPFF.pdf.
- Alvarez, Scott. "Lehman Good Bank/Bad Bank idea discussed last night." FCIC archive, email to Kieran Fallon, 2008. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-07-15_Federal_Reserve_Bank_Email_from_Scott_Alvarez_to_Kieran_Fallon_Re_Lehman_Good_Bank_Bad_Bank_idea_discussed_last_night.pdf
- Bagehot, Walter. *Lombard Street: A Description of the Money Market*. Great Britain, 1873.
- Ball, Laurence M., *The Fed and Lehman Brothers*. Johns Hopkins University for The National Bureau of Economic Research Monetary Economics Program, 2016.
- Baxter, Thomas. "Follow-up email to Testimony before the FCIC." FCIC archive, 2010. https://fcic-static.law.stanford.edu/cdn_media/fcic-testimony/TBTF/Thomas%20Baxter%20Follow%20Up.pdf
- Bernanke, Ben. "Central Bank Independence, Transparency, and Accountability." Institute for Monetary and Economic Studies International Conference, Japan, 2010.
- Bernanke, Ben. "Closed Session before the FCIC." FCIC archive, 2009. https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/FCIC%20Interview%20with%20Ben%20Bernanke,%20Federal%20Reserve.pdf
- Bernanke, Ben. "Follow-up email to Testimony before the FCIC." FCIC archive, 2010. https://fcic-static.law.stanford.edu/cdn_media/fcic-testimony/TBTF/Chairman%20Bernanke%20Follow%20Up.pdf
- Bernanke, Ben. "Meeting of the Federal Open Market Committee on April 29-30, 2008." The Board of Governors of the Federal Reserve System, 2008. <https://www.federalreserve.gov/monetarypolicy/files/FOMC20080430meeting.pdf>
- Bernanke, Ben. "Reflections on a Year of Crisis." The Federal Reserve Bank of Kansas City's Annual Economic Symposium, Jackson Hole, Wyoming, 2009. <https://www.federalreserve.gov/newsevents/speech/bernanke20090821a.htm>
- Bernanke, Ben. "Statement of Ben S. Bernanke before the Financial Crisis Inquiry Commission." FCIC archive, 2010. https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2010-09-02%20Bernanke%20Testimony%20to%20the%20FCIC.pdf
- Bernanke, Ben. *The Courage to Act: A Memoir of a Crisis and Its Aftermath*. W. W. Norton & Company, 2015.
- Bernanke, Ben. "The Federal Reserve: Looking Back, Looking Forward." Annual Meeting of the American Economic Association, Pennsylvania, 2014. <https://www.federalreserve.gov/newsevents/speech/bernanke20140103a.htm>
- Bernanke, Ben. "Transcript of the Federal Open Market Committee Conference Call on July 24, 2008." Board of Governors of the Federal Reserve System, 2008. <https://www.federalreserve.gov/monetarypolicy/files/>

FOMC20080724confcall.pdf

- Board of Governors of the Federal Reserve System. “Federal Reserve announces establishment of Primary Dealer Credit Facility.” Federal Reserve System, Press Release, 2008. <https://www.newyorkfed.org/newsevents/news/markets/2008/rp080316.html>
- Board of Governors of the Federal Reserve System. “Federal Reserve Board announces several initiatives to provide additional support to financial markets, including enhancements to its existing liquidity facilities.” Federal Reserve System, Press Release, September, 2008. <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080914a.htm>
- Board of Governors of the Federal Reserve System. “Federal Reserve will offer \$50 billion in 28-day credit through its Term Auction Facility Today.” Federal Reserve System, Press Release, March 10, 2008. <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080310a.htm>.
- Board of Governors of the Federal Reserve System. “FOMC statement and Board approval of discount rate...” Federal Reserve System, FOMC Statement, May, 2006. <https://www.federalreserve.gov/newsevents/pressreleases/monetary20060510a.htm>.
- Board of Governors of the Federal Reserve System. “FOMC statement: Federal Reserve and Other Central Banks Announce Specific Measures Designed to Address Liquidity Pressures in Funding Markets.” Federal Reserve System, Press Release, March 11, 2008. <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080311a.htm>.
- Board of Governors of the Federal Reserve System. “Press Release.” The Federal Reserve System, FOMC Statement, August, 2007. <https://www.federalreserve.gov/newsevents/pressreleases/monetary20070807a.htm>.
- Board of Governors of the Federal Reserve System. “What Are the Federal Reserve’s Objectives in Conducting Monetary Policy?” The Federal Reserve System, 2019. www.federalreserve.gov/faqs/money_12848.htm.
- Brickler, Lucinda. “FRBNY’s latest thinking about how the Fed might provide liquidity to Lehman through PDCF (or an expanded PDCF).” FCIC archive, Email, July 11, 2008. https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-07-11_Federal_Reserve_Bank_Email_from_Kieran_Fallon_to_Rich_Ashton_and_Mark_VanDerWeide_Re_Tri-party_variant.pdf
- Craig, Susanne, Jeffery McCracken, Aaron Fucchetti, Kate Kelly. “The Day that Wall Street Died.” Wall Street Journal, December, 2008. Accessed April 12, 2020. <https://www.wsj.com/articles/SB123051066413538349>
- Dudley, Bill. “Financial Crisis Inquiry Committee Interview.” FCIC archive, Audio. https://fcic-static.law.stanford.edu/cdn_media/fcic-audio/2010-10-15%20FCIC%20staff%20audiotape%20of%20interview%20with%20Bill%20Dudley,%20Federal%20Reserve%20Bank%20of%20New%20York.mp3
- Dudley, Bill. “Meeting of the Federal Open Market Committee on March 18, 2008.” Board of Governors of the Federal Reserve System, 2008. <https://www.federalreserve.gov/monetarypolicy/files/FOMC20080318meeting.pdf>
- Dudley, Bill. “Meeting of the Federal Open Market Committee on June 24-25, 2008.” The Board of Governors of the Federal Reserve System, 2008. <https://www.federalreserve.gov/monetarypolicy/files/FOMC20080625meeting.pdf>

“Existing Home Sales Rise in February.” Archive of National Association of Realtors, 2008. Accessed March 21, 2020. <http://archive.realtor.org/article/existing-home-sales-rise-february>

Federal Open Market Committee. Additional speeches, transcripts, statements, blue books, green books, beige books, and other meeting materials. The Federal Reserve System, Transcripts and other Historical Materials, 2001-2009. https://www.federalreserve.gov/monetarypolicy/fomc_historical_year.htm

Federal Reserve Board. “Federal Reserve Act, Section 13. Powers of the Federal Reserve Banks, 3. Discounts for Individuals, partnerships, and Corporations.” Federal Reserve System, 2017. <https://www.federalreserve.gov/aboutthefed/fract.htm>.

Financial Crisis Inquiry Commission. Additional statements, emails, memos, transcripts, and other materials. FCIC archive, 2011. <http://fcic.law.stanford.edu/resource>

Financial Crisis Inquiry Committee. “Final Report of the Nation Commission on the Causes of the Financial and Economic Crisis in the United States.” FCIC archive, Final Report, 2011. http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_full.pdf

Financial Crisis Inquiry Commission. Setting the Stage: Securitization and Derivatives. FCIC archive, The Report: Part II: Chapter 3, 2011. http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_chapter2.pdf.

Financial Crisis Inquiry Commission. Setting the Stage: Shadow Banking. FCIC archive, The Report: Part II: Chapter 2, 2011. http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_chapter2.pdf.

Financial Crisis Inquiry Commission. Setting the Stage: Subprime Lending, “Mortgage Securitization.” FCIC archive, The Report: Part II: Chapter 5, 2011. http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_chapter2.pdf.68

“Foreclosure Rate Climbs More Slowly.” Realtor Mag, 2008. Accessed March 21, 2020. <https://www.nar.realtor/rmodaily.nsf/pages/News2008022602>

Fuld, Richard. “Written Statement of Richard S. Fuld, Jr. Before the Financial Inquiry Commission.” FCIC archive, 2010. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2010-09-01%20Richard%20Fuld%20Written%20Testimony.pdf

Geithner, Tim. “Crisis On Wall Street: The Week That Shook The World.” CNBC, 2018. <https://www.youtube.com/watch?v=0yuKLHG0dGs>.

Geithner, Tim. Stress Test. New York: Crown Publishers, 2014.

Hawkins, Raymond. “Noise.” Class Lecture, Financial and Behavior Economics, The University of California, Berkeley, 2020.

Labonte, Marc. “Federal Reserve: Emergency Lending.” Congressional Research Service, March 2020), 6.

LaTorre, Alejandro. “Pros and Cons of AIG lending.” FCIC archive, Email, 2008. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-09-14%20FRBNY%20Alejandro%20LaTorre%20e-mail%20message%20to%20Timothy%20Geithner.pdf

- LaTorre, Alejandro. "Systemic Impact of AIG Bankruptcy." FCIC archive, Attachment to FRBNY Internal Email from Alejandro LaTorre to Geithner, 2008.
- Legal Division of the Board of Governors of the Federal Reserve System. "Authority of the Federal Reserve to provide extensions of credit in connection with a commercial paper funding facility (CPFF)." FCIC archive, 2009. https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-03-09_Federal_Reserve_Bank_Letter_from_Legal_Division_to_Files_Re_Authority_of_the_Federal_Reserve_to_provide_extensions_of_credit_in_connection_with_a_commercial_paper_funding_facility_CPFF.pdf
- "Lehman Brothers: The Rise and Fall of the US investment bank." Corporate Finance Institute Education Inc, 2015. Accessed April 3, 2020. <https://corporatefinanceinstitute.com/resources/knowledge/finance/lehman-brothers/>.
- Lewis, Kenneth. "Interviews conducted by the Financial Crisis Inquiry Committee." FCIC archive, 2011. <http://fcic.law.stanford.edu/resource/interviews#L>
- Madigan, Brian. "Bagehot's Dictum in Practice: Formulating and Implementing Policies to Combat Financial Crisis." Federal Reserve System, Speech, 2009. <https://www.federalreserve.gov/newsevents/speech/madigan20090821a.htm>
- McConnell, John J. and Stephen A. Buser. "The Origins and Evolution of the Market for Mortgage-Backed Securities." Annual Review of Financial Economics, Vol. 3:173-192, 2011. <https://www.annualreviews.org/doi/10.1146/annurev-financial-102710-144901>.
- Mishkin, Frederic. "Meeting of the Federal Open Market Committee on April 29-30, 2008." The Federal Reserve System, 2008. <https://www.federalreserve.gov/monetarypolicy/files/FOMC20080430meeting.pdf>
- Nakamura, Emi. "Lehman Brothers: Introduction." Class Lecture, Macroeconomic Policy from the Great Depression to Today, University of California, Berkeley, 2019.
- Nakamura, Emi. "Theory of Bank Bailouts." Class Lecture, Macroeconomic Policy from the Great Recession to Today, University of California, Berkeley, 2019.
- Nakamura, Emi, Pierre Yared, and Jack Lysohir. Lehman Brothers: Too Big to Fail? Columbia Business School, 2016.
- Paulson, Henry. "Crisis On Wall Street: The Week That Shook The World." CNBC, 2018. <https://www.youtube.com/watch?v=DsZ28xn9ATo>.
- Proctor, Rita C. "Financial Markets Conference Call." FCIC archive, Email, September 11, 2008. https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-09-11_Federal_Reserve_Bank_Email_from_Rita_C_Proctor_to_Chairman_Re_AM_Financial_Markets_Conference_Call_9-11-08.pdf
- "Timeline Regarding The Bear Stearns Companies Inc." FCIC archive, 2008. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-04-03_SEC_Timeline_regarding_the_Bear_Stearns_Companies_Inc.pdf.
- "UK Didn't Block Barclays' Lehman Deal- regulator." Reuters, Market News, 2010. Accessed April 12, 2020. <https://www.reuters.com/article/barclays-lehman-idUSLDE62B25820100312>
- United States Securities and Exchange Commission. "Lehman Brothers Holdings Inc. Form10-Q." 2008.

https://www.sec.gov/Archives/edgar/data/806085/000110465908045115/a08-18147_110q.htm

Valukas, Anton. "Lehman Brothers Holding Inc. Chapter 11 Proceedings Examiners Report, Volume 4, Section III.A.5: Secured Lenders, Section II.A.6:Government." Jenner and Block, 2011.

Valukas, Anton. "Lehman Brothers Holding Inc. Chapter 11 Proceedings Examiners Report, Volume 5, Section III.B: Avoidance Actions; Section III.C: Barclays Transaction." Jenner and Block, 2011.

Wiggins, Rosalind Z., Thomas Piontek, and Andrew Metrick. "The Lehman Brothers Bankruptcy." Yale School of Management, Yale Program on Financial Stability, Case Study 2014-3AV1, 2014. <https://som.yale.edu/sites/default/files/files/001-2014-3A-V1-LehmanBrothers-A-REVA.pdf>