What caused the collapse of Lehman Brothers?

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July 6, 2012

* The views expressed in this paper are the author’s alone. I am extremely grateful to Dr. John H. Nugent, Associate Professor, School of Management, Texas Woman’s University, for constructively reviewing this paper and providing valuable comments. But of course, the usual disclaimers apply and any mistake is the author’s only and does not engage anyone but the author!
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On September 15, 2008, the fourth largest investment bank in the U.S., Lehman Brothers (holding over $600 billion in assets) filed for Chapter 11 bankruptcy protection, the largest bankruptcy filing in the history of U.S. This had raised series of questions and concerns by many renowned experts and players in the international banking community. Lehman increasingly turned to Repo 105 to manage its balance sheet and reduce its reported net leverage, after burdening itself with a huge volume of illiquid assets that it could not readily sell. Lehman’s acquisition of illiquid assets was also the subject for investigation relating to the liquidity and valuation issues.

While Lehman’s risk decisions were within the business judgment rule and did not give rise to colorable claims, those decisions were described in retrospect by many experts as poor judgment. Going forward, there is the need for regulators of financial institutions to eliminate the gaps in their financial regulatory framework that allow large, complex, interconnected firms like Lehman to operate without robust consolidated supervision.

Keywords: Bank, Risk, Liquidity, Leverage, Derivatives, Regulation, Crisis
1.0 Introduction

Many businesses fail not only because of lack of profits but also because of cash-flow problems. In 2008, the operations of the fourth largest investment bank in the U.S., Lehman Brothers came to a halt; with the company’s share price dropping from $86.18 in 2007 to less than $4 in September 2008 (Valukas, 2010). Lehman Brothers had over 25,000 staff around the world. On January 16, 2009, the United States Bankruptcy Court for the Southern District of New York directed the U.S. Trustee to nominate an Examiner to “investigate the acts, conduct, assets, liabilities, and financial condition of the debtor (Lehman), the operation of the debtor’s business and the desirability of the continuance of such business” (Valukas, 2010). With $639 billion in assets and $619 billion in debt, Lehman's bankruptcy filing was the largest in history, as its assets far surpassed those of previous bankrupt giants such as WorldCom and Enron (Investopedia, 2009).

The collapse of the U.S. housing market ultimately brought Lehman Brothers to its knees, as its headlong rush into the subprime mortgage market proved to be a disastrous step. In 2005 and 2006, Lehman was the largest producer of securities based on subprime mortgages. By 2007, more than a dozen lawsuits had been initiated against Lehman on the ground that it had improperly made borrowers take on loans they could not afford. Lehman's collapse also made it the largest victim of the U.S. subprime mortgage-induced financial crisis that moved through global financial markets in 2008. Lehman's collapse was a decisive event that greatly intensified the 2008 crisis and contributed to the erosion of close to $10 trillion in market capitalization from global equity markets in October 2008, the biggest monthly decline on record at the time (Investopedia, 2009).

Lehman’s top three counterparties as of May 2008 were Deutsche Bank, J.P. Morgan, and UBS. But many perceived these counterparties, particularly J. P. Morgan as risky for
Lehman, due to the culture clash and risk tolerance differentiation that prevented the merger between J. P. Morgan and Chase Manhattan Bank from ever achieving the synergies the financial world was expecting (LaRoche, n.d.). Lehman was a party to three most common types of transactions, namely: credit default swaps, interest rate swaps, and foreign exchange derivatives but investor confidence continued to erode as Lehman's stock lost roughly half its value and pushed the S&P 500 down 3.4% on September 9, 2008. In 2008, Lehman faced an unprecedented loss due to the continuing subprime mortgage crisis. Lehman's loss was apparently a result of having held on to large positions in subprime and other lower-rated mortgage tranches when securitizing the underlying mortgages. The paper discusses the business decisions that Lehman made well before the collapse, and the risk management issues that arose by those business decisions. The paper also analyzes the causes of action that arose from Lehman’s financial condition and failure and the implication of the collapse on the international banking system. It concludes that Lehman’s collapse could have been avoided if stringent measures were taken to ensure effective risk management in the acquisition of illiquid assets and transaction of derivative instruments.

2.0 Discussion of the facts and issues

In the years leading to its bankruptcy in 2008, Lehman’s exposure to the mortgage market was risky as it borrowed significant amounts to fund its investments. A significant portion of this leveraging was put in housing-related assets, making it vulnerable to a downturn in that market. Analyses carried by many experts focused largely on Lehman’s valuation of the following asset categories: commercial real estate, residential whole loans, residential mortgage-backed securities, collateralized debt obligations, other derivatives, corporate debt and corporate equity. This section discusses Lehman’s business decisions that led to the collapse.
2.1 Lehman’s business decisions and operations prior to the collapse

Prior to the demise of Lehman, a lot of investment decisions were made, which analysts described as unnecessary and risky. Investigation conducted with respect to Lehman’s commercial real estate found “insufficient evidence to conclude that Lehman’s valuations of its commercial portfolio were unreasonable as of the second and third quarters of 2008; nevertheless, the findings indicated that real estate assets were not reasonably valued during these quarters and Lehman’s valuations of its Archstone bridge equity investment were unreasonable as of the first, second and third quarters of 2008 (Valukas, 2010). Residential Whole Loans (RWLs) also accounted greatly for Lehman’s collapse. RWLs are residential mortgages that can be traded and pooled during the first phase in the securitization process, the result of which is the creation of Residential Mortgage-Backed Securities (RMBS). According to Valukas (2010), Lehman reported that it owned RWLs with an aggregate market value of approximately $8.3 billion, as consolidated across subsidiaries as of May 31, 2008. With this disclosure, the investigation identified lack of robustness in Lehman’s product control process for residential whole loans; and concluded that there was some risk of misstatement in this asset class.

With the aim of taking advantage of speculative opportunities as well as managing its exposure to market and credit risks resulting from trading activities, Lehman entered into derivative transactions on behalf of its clients and itself (Valukas, 2010). According to Valukas (2010), Lehman held over 900,000 derivatives positions worldwide as of May and August, 2008 with a net value of approximately $21 billion as of May 31, 2008; making up a relatively small percentage of Lehman’s total assets (approximately 3.3%). The various types and values of Lehman’s derivatives positions from November 30, 2006 to May 31, 2008 are depicted in
Appendix I. The net value of Lehman’s derivatives positions between November 2006 and May 2008 is shown in Appendix II. Valukas (2010) argues that the term derivative is usually a contract between two or more parties, which is often referred to as a “financial contract.” Lehman experienced a decline of $17.0 billion in Collateralized Debt Obligations (CDOs) in fiscal year 2008, compared with the $16.2 billion and $25.0 billion generated in fiscal years 2006 and 2007 respectively (Valukas, 2010). Although this decline in 2008 is not as severe as is generally consistent with the decline in the global CDO market, many argue that it contributed significantly to the collapse of Lehman. See chart 1 below.

**Chart 1: Global CDOs issued from 2004 to 2008**

![Global CDO Issuances by Quarter 1Q04 - 4Q08 (US$million)](chart.png)

Source: Valukas, 2010
Notwithstanding the billions of dollars worth of CDOs that Lehman originated from 2006 to 2007, Lehman accounted for only 3% of the total value of new CDO issuances; and their CDO portfolio was subjected to the disruptions in the credit markets and deteriorating value of mortgages and mortgage-linked securities that occurred in 2007 and 2008 (Valukas, 2010). As the market deteriorated, Lehman was unable to sell subordinate pieces of securitizations, and many of Lehman’s CDO positions were such pieces. For example, of the $431 billion of CDOs originated in 2006-2007, more than half had experienced events of default by November 2008, with increasing numbers of defaults over time (Valukas, 2010).

Krugman (2010, cited in Swedberg, 2010) found that "in the years before the crisis ... regulators failed to expand the rules [for banks] to cover the growing 'shadow' banking system, consisting of institutions like Lehman Brothers that performed bank-like functions even though they didn't offer conventional bank deposits." The financial storm that broke out after Lehman's fall on September 15 made some of Lehman’s executives realize very quickly that something else had to be done than just attend to individual cases. In reacting to the action taken by Bernanke to restore confidence, Joseph Stiglitz described Bernanke’s conduct as "an act of extraordinary arrogance," and said:

"Bernanke sold the program as necessary to restore confidence. But it didn't address the underlying reasons for the loss of confidence. The banks had made too many bad loans. There were big holes in their balance sheets. No one knew what was truth and what was fiction. The bailout package was like a massive transfusion to a patient suffering from internal bleeding -and nothing was done about the source of the problem" (cited in Swedberg, 2010).
Lehman succeeded in raising about $6 billion in capital in June 2008, and took steps to improve its liquidity position in July 2008, but efforts in raising additional capital in the weeks leading up to its failure proved inadequate (Bernanke, 2010). Lehman's high degree of leverage - the ratio of total assets to shareholders equity - was 31 in 2007, and its huge portfolio of mortgage securities made it increasingly vulnerable to deteriorating market conditions (Investopedia, 2009). Lehman's bankruptcy was many times more complex than Enron's failure in 2001 as it was deeply plumbed into the global financial system. According to Bernanke, "virtually every large financial institution in the world was in momentous danger of going bankrupt" (Bernanke, 2009, cited in Swedberg, 2010). The following section analyzes some of the causes of Lehman’s collapse, with a particular emphasis on the implications of the bankruptcy on the international banking system.

3.0 Analysis of the facts and issues

The collapse of Lehman has made headline news in various newspapers and journals. Several authors and industry practitioners have undertaken a lot of research just to ascertain “what caused the failure of Lehman Brothers”. This section analyzes the facts and issues relating to the collapse of Lehman Brothers. What made Lehman Brothers go bankrupt and how could its bankruptcy have such an enormous impact on the financial system? How could this single event turn an economic crisis of some severity into a full-blown financial panic? These and many other questions are the focus of this section.

3.1 Causes of action arising from Lehman’s financial condition and failure

In recent years, there have been series of publications about what caused the failure of Lehman Brothers. While some blamed Lehman’s Chief Executive, Dick Fuld for his overconfidence in trying to salvage something for shareholders and failure to recognize that
Lehman faced a crucial crisis, others stressed that the basis for the collapse was far beyond the control of the Chief Executive. One reason why Lehman would later go bankrupt has to do with the fact that anyone who was perceived as a threat by Fuld was quickly eliminated including a number of critics who early on realized that Lehman was headed for serious trouble (McDonald & Robinson, 2009; Tibman, 2009, cited in Swedberg, 2010). As in most investment banks, the employees of Lehman were paid extraordinarily high salaries and bonuses, which together ate up more than half of what the company earned in pretax profit (Dash, 2010a, cited in Swedberg, 2010).

The Bank of America was blamed for ending takeover talks with Lehman in favour of buying its larger rival Merrill Lynch for $50 billion; and Barclays was also blamed for refusing to buy Lehman without US government’s backing in the form of emergency funding (D’Arcy, 2009). But D’Arcy (2009) noted that Lehman failed because of three things: leverage, liquidity and losses. According to D’Arcy (2009), the best way to enhance your returns during the good times is to 'gear up' by borrowing money to invest in assets which are rising in value. In 2004, Lehman’s leverage was running at 20 and rose past the twenties and thirties before peaking at an incredible 44 in 2007, i.e. Lehman was leveraged 44 to 1 when asset prices began heading south (D’Arcy, 2009).

Several authors have described the demise of Lehman as a consequence of the abolishment of the Glass-Steagall Act of 1933. The Glass-Steagall Act was enacted to separate the activities of commercial and investment banking (Tabarrok, n.d.). The U.S. has historically maintained a separation between commercial banking and investment banking until the late 1980s. But following the repeal of the Glass-Stegall Act, Lehman started to compete with large commercial banks that retained large amounts of funds, pursuing a path of high risk. Prior to the passage of the Banking Act of 1933, banking regulation was greatly tightened in the United
States which led to more than 9,000 banks failing during the great depression years of 1930-1933 (LaRoche, n.d.).

Many experts have blamed these failures on the alleged unethical actions arising from the amalgamation of commercial and investment banking. In their paper, Altınkılıç, et al. (2007) found that investment banks’ governance has responded to the deregulation of commercial bank entry into investment banking by virtue of the repeal of the Glass-Steagall Act. Competing with commercial banks was a huge task for Lehman; hence the easiest way to compete was to utilize high amounts of leverage, thereby taking on more risk. For an investment bank, the processing and absorption of risk is a typical intermediation function similar to a commercial bank engaged in lending (Boot, 2008).

A dangerous state for any bank is to lose liquidity. Like all banks, Lehman was an upturned pyramid balanced on a splinter of cash. Although it had a massive asset base, Lehman didn't have enough by way of liquidity. Believing that Lehman did not have enough liquidity at hand, other banks refused to trade with it, so they moved to protect their own interests by pulling Lehman's lines of credit (D’Arcy, 2009). Many blamed Lehman’s failure on insufficient liquidity to meet current obligations as well as inability to retain the confidence of lenders and counterparties (Valukas, 2010). Lehman’s available liquidity is central to the question of why Lehman failed. Liquidity provides a firm with the ability to convert assets into cash without intricacy, thereby ensuring that short-term obligations are satisfied and investment decisions are maintained. “The firm also said that it had boosted its liquidity pool to an estimated $45 billion, decreased gross assets by $147 billion, reduced its exposure to residential and commercial mortgages by 20%, and cut down leverage from a factor of 32 to about 25” (Investopedia, 2009). But Valukas (2010) noted that there was a crisis of confidence as the confidence of Lehman’s
lenders reduced on two consecutive quarters with huge reported losses, $2.8 billion in second quarter 2008 and $3.9 billion in third quarter of 2008.

Lehman’s accounting system was a flop. The “Repo 105 transactions” employed by the firm was described by its own accounting personnel as an “accounting gimmick”, as it was a lazy way of managing the firm’s balance sheet (Valukas, 2010). This action of accounting improprieties created a misleading portrayal of Lehman’s true financial health. Surprisingly, Lehman’s external auditor, Ernst & Young took virtually no action to investigate the “Repo 105” allegations; and did not take any step to “question or challenge the non-disclosure by Lehman of its use of $50 billion of temporary, off-balance sheet transactions” (Valukas, 2010). This unprofessional conduct by Lehman’s auditor justifies Stern Stewart’s (2002) finding that accounting is no longer counting what counts and those in charge have not been wise enough or strong enough to resist their ploys and to make the auditors’ definition of earnings into a reliable measure of value. Many experts attribute majority of companies’ failures and financial crises to accounting fraud, disclosure fraud, and accounting manipulation, that were kept under cover; and auditors failed to sound any warning bells (in the form of “going concern”) to shareholders and the society.

Financial statement fraud also played a major role in the collapse of Lehman, as some senior officers overlooked and certified misleading financial statements. This is not surprising because the 1999 study of 200 financial statement frauds from 1987 to 1997 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) revealed that “senior management” is the most likely group to commit financial statement fraud (KuTenk 2000, 2009). The examination carried out on Lehman’s bankruptcy identified claims against Lehman’s external auditor, Ernst & Young for their failure to question and challenge improper or inadequate disclosures in Lehman’s financial statements (Valukas, 2010). According to the
Public Company Accounting Oversight Board, “an external auditor has a responsibility to plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether caused by error or fraud” (CAQ, 2010). Lartey (2012) suggests that auditors need to demonstrate a high level of independence and objectivity when reviewing financial statements. This independence and objectivity was totally lost in the case of Lehman’s external audit.

According to Cooper (2005), in the six years preceding Enron's collapse, ASIC's American counterpart, the SEC, estimated that investors lost US$100 billion owing to faulty, misleading or fraudulent audits. It was confirmed that those associated with the Enron fiasco, including its auditor, Arthur Andersen, had been shredding thousands of pages of incriminating papers (Scott+Scott LLP, 2008). Deceptive accounting and improper adjustment to financial statements are also common financial reporting frauds that auditors appear to often cover up. For example, WorldCom, whose accounts were audited by the “so-called” professional auditors, experienced a more catastrophic loss of 17,000 jobs, having inflated profits by nearly US$4 billion through deceptive accounting and improper adjustments to the financial statements (Cooper, 2005). It is evident from the collapse of Lehman Brothers that many auditors appear to be complicit in financial statement frauds. In the case of Dynegy in which $300 million bank loan was disguised to look like cash flow, through a series of complicated trades, the complicated nature of the trades would have required substantial detective work on the part of the auditor (Ziff Davis Media Inc, 2004).

While many analysts have blamed Lehman’s collapse on “complicit” external auditors, others have expressed different views. It is argued that external auditors often are not effective in detecting fraud given fraud’s strategic nature (ACFE 2008; KPMG 2003, cited in Carcello & Hermanson, 2008). Again, Johnson (2010) argues that there is no guarantee that all material
Failure of Lehman Brothers

misstatements, whether caused by error or fraud, will be detected by auditors because auditors do not examine every transaction and event. In the case of Rite Aid in which earnings were inflated by $1.6 billion through the improper recording of supplier rebates, expenses and calculation of the life of assets, it was difficult for the auditors to uncover the scheme (Ziff Davis Media Inc, 2004). In fraudulent deals, fraudsters typically use “controlled chaos” to perpetrate their crimes successfully, often concealing it from the auditors. For example, in the case of Crazy Eddie Company’s frauds, the auditors were rushed and didn’t have time to complete many of their procedures (Kranacher, 2010).

Lehman was heavily exposed to the US real-estate market, having been the largest underwriter of property loans in 2007, by which Lehman had over $60 billion invested in commercial real estate (CRE) and was very big in subprime mortgages - loans to risky homebuyers (D’Arcy, 2009). Lehman had huge exposure to innovative yet arcane investments such as collateralized debt obligations (CDOs) and credit default swaps (CDS). These caused a lot of damage to the firm. Collateralized Debt Obligations (CDOs) are derivative instruments through which a financial institution combines assets of various types (for example “prime” mortgages with “subprime” ones). The packaged debt is then sold to a special purpose vehicle, generally registered offshore in a low tax jurisdiction. The new entity then issues its own equity or bonds to resell the debt to other investors, carving it up into different tranches with different risk ratings using complex mathematical models (Wilks, 2008). Lartey (2012) argues that overreliance on agency ratings of CDOs was a direct outcome of the difficulty in evaluating such complex financial products.

According to Lang & Jagtiani (2010), most of the initial losses in securities markets came from collateralized debt obligations (CDOs) and other structured securities that were tied to the residential mortgage market. Thus, relative to their capital position, large financial institutions
had highly concentrated exposures to this structured but complex securities market. Fitch (2006, cited in Lang & Jagtiani, 2010) found that the number of subprime downgrades during July-October 2006 was the largest in its history. Credit Default Swaps (CDS) are mainly credit derivatives where the underlying asset is a loan, mortgage or any other form of credit. The risks inherent in CDS and other types of over-the-counter (OTC) derivatives played crucial role in the financial crisis (European Commission, 2009). As property prices crashed and repossessions and arrears sky-rocketed, Lehman was caught in a perfect storm and announced a $2.5 billion write-down due to its exposure to commercial real estate (D’Arcy, 2009). While many authors blamed Lehman’s bankruptcy on their 900,000 derivatives positions, the investigators did not find sufficient evidence to prove that Lehman’s valuation of its derivatives portfolio in 2008 was unreasonable (Valukas, 2010). The following section analyzes the implications that Lehman’s bankruptcy has on the international banking system and addresses ways and manner to avoid such crisis.

3.2 Implications of Lehman’s Collapse to the international banking industry

Many analysts have linked Lehman’s collapse to risky real estate lending. The U.S. subprime crisis was one of the major crises that had serious implication on the global banking system, and still poses a lot of threats to many banks, especially those with investment banking activities. Through securitization, the risks of sub-prime lending were transferred from mortgage lenders to third-party investors (IFSL Research, 2008). Lehman's bankruptcy had caused some depreciation in the price of commercial real estate. For example, the liquidation of Lehman’s $4.3 billion in mortgage securities sparked a selloff in the commercial mortgage-backed securities (CMBS) market.
Lehman’s collapse gave rise to the drop in the Primary Reserve Fund, the first time since 1994 that a money-market fund had dropped below the $1-per-share level. Lehman's bankruptcy led to more than $46 billion of its market value being wiped out. Its collapse also served as the catalyst for the purchase of Merrill Lynch by Bank of America in an emergency deal that was also announced on September 15 (Investopedia, 2009). The demise of Lehman resulted in the loss of 70% of $48 billion of receivables from derivatives that could otherwise have been relaxed (Valukas, 2010) and as much as $75 billion in value was destroyed (McCracken, 2008, cited in Valukas, 2010).

Many countries, firms and types of actors were directly linked to Lehman and its bankruptcy as well. For example, in England, about 5,600 retail investors had bought Lehman-backed structured products for $160 million (Ross, 2009, cited in Swedberg, 2010); whilst in Hong Kong, 43,000 individuals, many of them senior citizens, had bought so-called minibonds to a value of $1.8 billion, issued by Lehman (Pittman, 2009, cited in Swedberg, 2010). Renowned cities and counties in the United States lost more than $2 billion (Carreyrou, 2010; cf. Crittenden, 2009, cited in Swedberg, 2010). One state-owned bank in Germany, Sachsen Bank, lost around half a billion Euros (Kirchfeld & Simmons, 2008, cited in Swedberg, 2010). Pension funds, such as the New York State Teachers' retirement plan had also incurred losses due to the collapse of Lehman (Bryan-Low, 2009, cited in Swedberg, 2010). A large number of hedge funds in London also had some $12 billion in assets frozen when Lehman declared bankruptcy (Spector, 2009, cited in Swedberg, 2010).

3.3 Could it have been prevented?

Although the international banking industry had witnessed several bankruptcies over the past two decades, many analysts believe that Lehman's demise had gargantuan consequences on
the economy at large, as it was that anaphylactic shock to the financial system that led to the
global economic downturn (The Independent, 2009). Lehman’s collapse could have been
avoided if proactive measures were taken by senior management to ensure effective risk
management in their operations. Just before the collapse of Lehman Brothers, executives at
Neuberger Berman sent e-mail memos to Lehman’s senior management suggesting that Lehman
Brothers' top people forgo multi-million dollar bonuses to send a strong message to both
employees and investors that management was not shirking accountability for recent
performance. In their paper, Lartey (2012) argues that the 2007-2008 financial crisis could have
been avoided if the financial institutions adopted effective risk management practices in their
derivative trading. Prior to the collapse, Lehman had invested so much in risky derivatives. The
original idea of derivatives was to help actors in the real economy insure against risk but many
derivatives trades have crossed the line of price stabilization and risk management into
at the time, the application of fundamental principles of modern risk management would have
protected large and complex financial firms from being as vulnerable as they proved to be to
shocks in the mortgage market.”

There were lots of controversies surrounding the executives pay during the collapse. On
October 17, 2008, CNBC reported that several Lehman executives have been subpoenaed in a
case relating to securities fraud. Lehman Brothers’ executive pay was reported to have increased
significantly before filing for bankruptcy. Majority of analysts were highly critical of Lehman's
executives, indicating that they should have done more or done better. Valukas (2010) blamed
Lehman executives for exacerbating the firm's problems, resulting in financial fallout to creditors
and shareholders. According to Valukas (2010), the conduct of Lehman’s executives "ranged
from serious but non-culpable errors of business judgment to actionable balance sheet
Lehman Brothers failed to be rescued by a buyer or a government bailout. It has been suggested by many experts that public sources be used to capitalize banks and other major financial institutions. Rather than waiting to bailout banks in times of financial distress, many governments have adopted new strategies such as investing directly into the capital of their banks. For example, on October 8, 2010, the British government announced that they would invest 400 billion pounds directly into the capital of their banks; a faster way of strengthening the banks than by buying up their toxic assets (Swedberg, 2010). The Financial Times commented that:

“What finance ministers now accept is that liquidity concerns reflect genuine solvency and capital fears. More important still, they also now recognize -even in the US -that the only way to address this is to use taxpayer cash to recapitalize banks in a systemic manner, instead of demanding that central banks should solve the problem with ever- more liquidity tricks.” (Tett, 2008b, cited in Swedberg, 2010).

4.0 Conclusion

The international banking industry has undergone tremendous transformation across all economies and markets over the past few years. Recent regulations and competition in the banking industry have compelled many investment banks to pursue growth in sectors that traditionally fell within the domain of other financial institutions such as commercial banks. This
exposes the banks to take on more risks, often leading to crisis. With regards to Lehman’s reaction to the subprime lending crisis and other economic events, some earlier decisions taken by Lehman’s management were questionable, although they fell within business judgment rule. Most of the valuation procedures employed by Lehman were unreasonable for purposes of a bankruptcy solvency analysis. The failure by Lehman to disclose the use of its Repo 105 accounting practice provided ample evidence of the loop-holes in their accounting system. Again, there was a serious indictment for the inability of its external auditor, Ernst & Young to meet professional standard in connection with the lack of disclosure of accounting and financial statement frauds. The demands for collateral by Lehman’s Lenders (J.P.Morgan and CitiBank) had direct impact on Lehman’s liquidity pool.

While majority of Lehman’s failures were from within the company’s own operations, many questions arose as to whether the interaction between Lehman and the Government agencies that regulated and monitored Lehman contributed to the collapse. Many analysts believed that Lehman's bankruptcy had set off a panic that would end up by threatening not only the U.S. financial system but also the entire global financial system. Subsequent to the demise of Lehman, many concerns have been raised as to what led to the failure of the one-time leading investment bank in the U.S. The fact is that, these questions are currently hard to answer, among other reasons because there is very little exact knowledge about what happened once Lehman went bankrupt.

5.0 Recommendations

Lehman’s failure provides very important lessons. First, regulators of financial institutions should eliminate the gaps in their financial regulatory framework that allows large, complex, interconnected firms like Lehman to operate without robust consolidated supervision.
In September 2008, no government agency had sufficient authority to compel Lehman to operate in a safe and sound manner and in a way that did not pose dangers to the broader financial system. There is also the need for a new resolution regime, analogous to that already established for failing banks, in order to avoid having to choose in the future between bailing out a failing, systemically critical firm or allowing its disorderly bankruptcy. Such a regime, according to many experts in the global banking industry, would both protect the economy and improve market discipline by ensuring that the failing firm's shareholders and creditors take losses and its management is replaced.
References


Retrieved June 2, 2012 from


Retrieved from SMC Blackboard Learning Resource.

Retrieved January 20, 2012 from


Appendices

Appendix I: Fair Value of Derivatives and Other Contractual Agreements - Assets and Liabilities (All values are in $ million)

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<td>Assets</td>
<td>Liabilities</td>
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<td>Over-the-Counter</td>
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<td>Interest rate, currency and</td>
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<td>credit default swaps and</td>
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<td>options</td>
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<td>contracts and options</td>
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<td>Other fixed income contracts</td>
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<td>(including TBAs and forwards)</td>
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<td>Equity contracts</td>
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<td>warrants and options)</td>
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<td>Equity contracts</td>
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<td>Total</td>
<td>$ 22,696</td>
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<td>$ 44,595</td>
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Source: Valukas, 2010
### Appendix II: Net Fair Value of Derivatives and Other Contractual Agreements (All values are in $ million)

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</tr>
</thead>
<tbody>
<tr>
<td><strong>Over-the-Counter</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate, currency and credit default swaps and options</td>
<td>$ 2,943</td>
<td>$ 11,113</td>
<td>$ 15,915</td>
</tr>
<tr>
<td>Foreign exchange forward contracts and options</td>
<td>$ (353)</td>
<td>$ (409)</td>
<td>$ 113</td>
</tr>
<tr>
<td>Other fixed income securities contracts (including TBAs and forwards)</td>
<td>$ 1,704</td>
<td>$ 2,426</td>
<td>$ 4,649</td>
</tr>
<tr>
<td>Equity contracts (including equity swaps, warrants and options)</td>
<td>$ (5)</td>
<td>$ (922)</td>
<td>$ (369)</td>
</tr>
<tr>
<td><strong>Exchange traded</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity contracts (including equity swaps, warrants and options)</td>
<td>$ 390</td>
<td>$ 766</td>
<td>$ 798</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 4,679</td>
<td>$ 12,974</td>
<td>$ 21,106</td>
</tr>
</tbody>
</table>

Source: Valukas, 2010