

Research Paper

What Caused the Failure of Lehman Brothers? Could it have been prevented? How? Recommendations for going forward

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ABSTRACT

The year 2008 was marked by massive failures and collapse of investment institutions globally-revealing flaws in the banking system that required a complete overhaul. In the same year, one of the largest investment firms in the world, the Lehman Brothers, filed for Section 11 bankruptcy thereby throwing both the US and the global financial systems into turmoil. The collapse of Lehman Brothers Holdings Inc. (LEH) had a crippling effect on the global economy with the financial crisis escalating to other parts of the world. In the aftermath of this event, financial institutions froze lending activities thereby creating liquidity problems in the shadow banking financial system. The collapse of this institution could have been avoided were it not for regulatory and corporate governance failures. This paper has analysed what caused the failure of the Lehman Brothers, whether the failure could have been prevented and how this could have been achieved, and finally recommendations for going forward.

Key words: Lehman Brothers, Corporate Failure, Bankruptcy, Corporate Governance.

INTRODUCTION

During the past two decades, globalization¹, deregulation and financial innovation (favoured by advances in information and communication technology) have spurred changes in the way banks meet their customers' needs (Ohoukoh, 2012). In the United States of America (USA), the repeal of the Glass-Steagall Act² of 1934 prompted a new era for banking structure and scope.

¹ The tendency of investment funds and businesses to move beyond domestic and national markets to other markets around the globe, thereby increasing the interconnectedness of different markets (Hu et al., 2012)

² In 1933, in the wake of the 1929 stock market crash and during a nationwide commercial bank failure and the Great Depression, two members of Congress put their names on what is known today as the Glass-Steagall Act (GSA). This act separated investment and commercial banking activities (see, Casserley, Härle&Macdonald, n.d; Grumet, 2009).

Commercial banks have then embarked on investment banking businesses, and investment banks have merged with commercial banks creating a new perspective in universal banking (Casserley, Härle & Macdonald, n.d; Grumet, 2009). Universal banks are specialised in the originate-to-distribute strategy, which consists mainly in converting consumer loans into Asset Backed Securities (ABS) and Collateralized Debt Obligations (CDO) (Ohoukoh, 2012). Through financial engineering, they create innovated financial instruments such as synthetic CDOs and Credit Default Swaps (CDS) (Ohoukoh, 2012). The financial innovation has been very successful with little or no regulation. However the sudden occurrence of the sub-prime crisis amid a business cycle characterized by the worst inflation adjusted income gains for households has severely

distressed the banking industry and the whole economy, especially in the USA (Ohoukoh, 2012).

The year 2008 was marked by massive failures and collapse of investment institutions - revealing flaws in the banking system that required a complete overhaul (Tebogo, 2012). One of the largest investment firms in the world, the Lehman Brothers Holdings Incorporated (Lehman) filed for Section 11 bankruptcy henceforth throwing both the US and the global financial systems into turmoil (Valukas, 2010). The collapse of Lehman Brothers Holdings Inc. (LEH) had a crippling effect on the global economy with the financial crisis escalating to other parts of the world. In the aftermath of this event, financial institutions froze lending activities thereby creating liquidity problems in the shadow banking financial system (Tebogo, 2012).

The Lehman Brothers' bankruptcy in mid-September of the year 2008 is one of the worst in the history of the United States of America and it ushered in the second phase of the economic recession experienced in the latter parts of the previous decade (Baba & Packer, 2009). At the time of filing for bankruptcy, the Lehman Brothers' worth was estimated at \$639 billion while on the other hand, was \$613 billion in debt (Valukas, 2010). In addition to this, barely two weeks after the Lehman Brothers had filed for bankruptcy³ in the US, the financial markets in the country nearly collapsed when the Washington Mutual failed, a double tragedy for the American economy (Tebogo, 2012). Due to their extensive global imprint on the debt, equity and derivatives⁴ markets, the Lehman Brothers had subsidiaries all over

the world. Consequently, these global subsidiaries and companies affiliated to the Lehman Brothers also filed for financial insolvency⁵ hence catalysing the traumatic as well as catastrophic effects of the global economic recession on financial markets worldwide (Bris, 2010).

This paper therefore investigates what caused the failure of the Lehman Brothers; whether the failure could have been prevented; how this could have been achieved; and finally recommendations for going forward. The rest of the paper is structured as follows: Section two - Synopsis of some global corporate failures; Section three-Brief history of Lehman Brothers; Section four - Analysis of facts and issues; and Section five-Conclusion

SYNOPSIS OF SOME GLOBAL CORPORATE FAILURES Swissair

The former national airline of Switzerland, Swissair, used to be so financially stable that it was known as the "Flying Bank." Founded in 1931, Swissair epitomized international transportation until the late 1990s, when the airline's board decided to follow an aggressive borrowing and acquisition policy called the Hunter Strategy. Then, the terrorist attacks of September 11, 2001 put a void in the company's plans. Swissair found itself hamstrung with debt. Unlike some other airlines, however, Swissair couldn't handle the financial hit. Mismanagement and bad ideas-trundling large sums of cash to purchase fuel at foreign airports, for example, left the airline gasping for oxygen. In 2002, Switzerland was embarrassed to lose its national icon for good (Drea, 2009).

Parmalat

On December 24, 2003, the Italian government declared Parmalat, the leading Italian dairy firm, bankrupt. The seemingly sudden crisis that erupted at Parmalat began to reveal a cascading series of missing

³ Bankruptcy is a legal status of a person or other entity that cannot repay the debts it owes to creditors. In most jurisdictions, bankruptcy is imposed by a court order, often initiated by the debtor (Valukas, 2010).

⁴ Some of the more common derivatives include futures, forwards, swaps, options, and variations of these such as caps, floors, collars, and credit default swaps. Most derivatives are traded over-the-counter (off-exchange) or on an exchange.

⁵ Inability of a debtor to pay their debt. In many sources, the definition also includes the phrase "or the state of having liabilities that exceed assets"(Bris, 2010).

funds, complex off-shore⁶ transactions and artificial entities, fraudulent accounting, lack of internal controls⁷, and alleged corruption at the highest levels of management. In recent years, as details become increasingly known to regulators, investors, and the general public, many analysts are beginning to call Parmalat Europe's version of the United States' Enron disaster (Melis, 2005).

Commodore Computers

Between 1983 and 1986, Apple; IBM; and Atari computer were quaking in their boots because Commodore Computers had dominated the market. One of its products called Commodore 64 (C64) was selling 2 million units a year and controlled nearly 50% of the total market. As the company tried to innovate by releasing the Commodore plus/4, a faster, smarter version with a colour screen, they alienated their original customer base. The new model was incompatible with the cherished C64. Commodore Computers tried to discontinue the old line in the US by 1990 and announced it would stop shipping them in 1995. The tactic didn't work. Customers all over Europe continued to snap up the C64 until it became impossible for the company to manufacture them at a reasonable price without selling new, more expensive models. As they say, "you can't kill the C64." The company went bankrupt in the spring 1994 (Drea, 2009).

One-Tel

One-Tel was a major corporate collapse in Australia in 2001. At the time of its collapse, it was the fourth largest telecommunications company in Australia with more than two million customers and operations in eight countries. Analyses of quantitative and qualitative data from

diverse sources suggest that One-Tel's collapse is a classic case of failed expectations, strategic mistakes, wrong pricing policy, and unbridled growth (Monem, n.d).

Satyam Computer Services

On January 7, 2009, B. Ramalinga Raju - founder and chairman of Satyam Computer Services, one of India's largest and most respected software and IT services companies admitted that he had committed India's biggest corporate fraud, having manipulated the company's income statements, cash flows, and balance sheet for more than 7 years. The \$1.47 billion fraud on the Satyam's balance sheet included overstated revenues and profits, acts that were perpetrated by the founder and his brother, the company's CEO, to attract more business and avoid any possible hostile takeover. "It was like riding a tiger, not knowing how to get off without being eaten," Mr. Raju wrote in his confession statement ("India's Enron," 2009). Prior to this turn of events, Satyam had been widely recognized for exemplary corporate governance, and Raju hailed as a role model for successful business and entrepreneurship (Rajagopalan & Zhang, 2009).

Washington Mutual Bank

Washington Mutual Bank was America's largest Savings and Loan association, the sixth largest bank in the U.S., and the largest bank failure in history. After a 10-day run on the bank in late September 2008, with total withdrawals in excess of \$16 billion USD—almost 10% of the deposits. Federal Deposit Insurance Corporation (FDIC)⁸ seized Washington Mutual Bank's assets. JPMorgan Chase bought Washington Mutual Bank's subsidiaries the next day for what many suspect at pennies on the dollar. The holding

⁶ Located or based in a foreign country and not subject to tax laws (Melis, 2005).

⁷ A process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance (see, Committee of Sponsoring Organizations (COSO), 1992)

⁸ The Federal Deposit Insurance Corporation (FDIC) is a United States government corporation operating as an independent agency created by the Banking Act of 1933.

company is currently in Chapter 11⁹ (Drea, 2009).

WorldCom

On June 25, 2002, WorldCom, the Nation's second largest long distance telecommunications company, announced that it had overstated earnings in 2001 and the first quarter of 2002 by more than \$3.8 billion. The announcement stunned financial analysts and, coming on top of accounting problems at other corporations, had a noticeable effect on the financial markets. The accounting manoeuvre responsible for the overstatement-classifying payments for using other companies' communications networks as capital expenditures-was characterized by the press as scandalous, and it was immediately asked why Arthur Andersen, the company's outside auditor at the time, had not detected it. WorldCom filed for bankruptcy protection on July 21st. On August 8th, the company announced that it had also manipulated its reserve accounts in recent years, affecting an additional \$3.8 billion (Lyke, 2002).

Pan Am Airline

Founded in 1927, Pan Am Airline was a part of American culture for the better part of the 20th century. It led the industry in international flights and luxury travel. It was also the first airline to make widespread use of jumbo jets, and the first to use an air staff of stewardesses as a PR focal point. Little girls grew up wanting to be Pan Am stewardesses, and boys grew up wanting to pilot one of the fleet. Unfortunately, as an American icon, Pan Am was also a target for terrorism. A few horrific incidents, coupled with the increased global competition that came with deregulation, caused the airline to collapse in 1991 (Drea, 2009).

Enron

Enron is an American company doing business in the energy industry which was founded in 1985. It was conferred as

“America's Most Innovative Company” for six consecutive years by the Fortune magazine¹⁰ because of its significant growth in the market. That fame, however, changed when the Enron Scandal was brought into the limelight in 2001, making it the largest bankruptcy of all time, amounting to a whopping \$63.4 billion. Enron filed for bankruptcy protection in the Southern District of New York during late 2001 and selected Weil, Gotshal & Manges as its bankruptcy counsel (Arnold, & de Lange, 2003).

It is therefore apparent from the above summary of few global corporate failures that there is at least one particular cause for each failure. It is against this backdrop that this paper aims at finding out what was the cause in the case of Lehman Brothers. The next section presents a brief history of the Lehman Brothers.

BRIEF HISTORY OF LEHMAN BROTHERS

Lehman Brothers Holdings Incorporated (Lehman) was a global financial services firm. Before declaring bankruptcy in 2008, Lehman was the fourth largest investment bank in the US behind Goldman Sachs, Morgan Stanley, and Merrill Lynch (Gakpo, 2012). Lehman's core business included investment banking, equity and fixed-income sales and stock trading, research, investment management, private equity, and private banking (McCracken, 2009).

The history of Lehman Brothers traces its roots back to 1844, when the 23-year old Henry Lehman, a young emigrant from Bavaria, Germany, settled in Montgomery, Alabama to open a dry goods store. In 1850, The Lehman Brothers was founded with the arrival of two other brothers Emanuel and Mayer Lehman. It started as a merchandise business, but soon capitalizing on cotton's high market value,

⁹ Chapter 11 is a chapter of Title 11 of the United States Bankruptcy Code, which permits reorganization under the bankruptcy laws of the United States.

¹⁰ Fortune is an American business magazine published globally by Time Inc. and founded by Henry Luce in 1929. The magazine competes with Forbes and Bloomberg Business week in the national business magazine category and distinguishes itself with long, in-depth feature articles (see, Carmody, 1994).

the brothers focused on commodities trading and brokerage operations.¹¹ In 1858, a first branch office was opened in New York, creating the opportunity to have a larger presence in the commodities trading business and in the financial community. In 1887, the membership of Lehman Brothers in New York Stock Exchange marked the evolution of it from a commodities business to a merchant-banking firm (Latifi, n.d; Tebogo, 2012).

In 1899, the initial public offering of International Pump Company was underwritten by Lehman Brothers. In 1906, Philip Lehman (the son of Emanuel) and Henry Goldman (a dominant partner of Goldman Sachs) partnered to underwrite the issue of securities of some famous retail companies for the following two decades such as: Sears, Roebuck & Co., F.W. Woolworth, May Department Stores, Gimbel Brothers, B.F Goodrich and Endicott Johnson Corp. After Philip Lehman retirement, in 1925 his son, Robert Lehman led the firm until 1969, when he died. This period is remarked as a period of significant expansion and growth for the firm, which became active in financing of airlines and motion pictures companies, and in supporting the retail industry (Latifi, n.d).

In 1960, especially through commercial papers¹² issuance, the firm significantly expanded its capital markets trading capabilities, designated as an official dealer for US Treasuries. Through 1960-1970, by opening offices in Europe and Asia, Lehman Brothers increased significantly their global presence. In 1969, Robert Lehman, the last leader of member family died, bringing hard time to the firm. In 1973, Pete Peterson became Chairman

and CEO and the firm acquired Abraham & Co. in 1975, while two years later, merged with distinguished investment bank, Kuhn, Loeb & Co. which further enhanced the firm's international stature. Under Peterson, the firm experienced five consecutive years of record profits with a return on equity among the highest in the investment bank industry (Latifi, n.d; Tebogo, 2012).

Notwithstanding the success of the firm, internal increasing tensions, pressures and struggles, brought the sale of the firm to American Express¹³ in 1984, for \$360 million and Lehman Brothers merged with Shearson under the name Shearson Lehman/American express. In 1986, Lehman seats on the London Stock Exchange and two years later in 1988 on the Tokyo Stock Exchange. In 1988, a newly merged firm was born: the so-called Shearson Lehman Hutton Inc. with Dina Merrill being the director. After spinning-off from American Express, she continued to serve as a director of Lehman Brothers Holding Inc. In 1993, American Express divested Shearson and sold its retail brokerage and asset management to the Primerica. In 1994, through a public stock offering Lehman Brothers holding Inc. became independent and soon began trading common stocks on the New York and Pacific Stock Exchanges, under the ticket symbol "LEH" (Latifi, n.d; Tebogo, 2012; Cassim et. al., 2009)

Richard Fuld, Lehman's President and CEO, joined the firm in 1969. Lehman did well under Fuld thereby recording \$700 billion and \$25 billion in assets and liabilities and in capital respectively. Lehman financed business operations by borrowing from tens of billions of dollars to hundreds of billion dollars on a daily basis in the short-term repo¹⁴ market. The firm

¹¹ Buying and selling of financial securities between a buyer and a seller. Brokerage firms serve a clientele of investors who trade public stocks and other securities, usually through the firm's agent stockbrokers (see, O'Sullivan & Sheffrin, 2003)

¹² An unsecured, short-term debt instrument issued by a corporation, typically for the financing of accounts receivable, inventories and meeting short-term liabilities. Maturities on commercial paper rarely range any longer than 270 days (Latifi, n.d).

¹³ American Express Company, also known as Amex, is an American multinational financial services corporation headquartered in Three, Manhattan, New York City, New York, United States (Grossman, 1987).

¹⁴ Repo is a generic name for both *repurchase agreements* and *sell/buy-backs* (Tibman, 2009).

was characterised by long term assets and very short term liabilities (McDonald & Robinson, 2009; Tibman, 2009; Swedberg, 2010).

Lehman's purported revenue was nearly \$60 billion on January 29, 2008; as compared to earnings in excess of \$4 billion for the period ending November 30, 2007 (Bruno, 2008). During the same period, January 2008, Lehman's stock traded as high as \$65.73 per share and a market capitalization of over \$30 billion. Lehman's stock closed on 12 September, 2008 under \$4, a decline of nearly 95% compared purported earning values for January 2008 (Robinson, 2009). Series of intensive meetings were therefore held over the weekend of September 12 to 14, 2008, among key Stakeholders¹⁵ (Bernanke, 2009). During this critical meeting, the US Government's position was clear as lacking legal authority to make direct capital investment in Lehman, whose assets were insufficient to support a loan large enough to avoid demise (Fuld, 2008; Kindleberger, 2011; Taylor, 2008; Turner, 2009; Thomas, 2009).

On 15 September, 2008, Lehman sought Chapter 11 protection, the largest bankruptcy proceeding ever filed in the US (Bruno, 2008; Dash, 2008; White, 2008). Lehman's collapse was colossal, and triggered 75 separate and distinct bankruptcy proceedings (Robinson, 2009). The Dow Jones index plunged 504 points on that fateful September 15. On September 16, American International Group (AIG) was on the verge of collapse; the Government intervened with a financial bailout package that ultimately cost over \$182 billion (Mollenkamp, 2008). On September 16, 2008, the Primary Fund, a \$62 billion money market fund, share price fell to less than \$1 per share. On October 3, 2008, Congress passed a \$700 billion Troubled Asset Relief Program (TARP) rescue

¹⁵ A party that has an interest in an enterprise or project. The primary stakeholders in a typical corporation are its investors, employees, customers and suppliers (Bernanke, 2009).

package (Afonso, 2009; Swedberg, 2010; Lawrence, 2009). The next section therefore presents the analysis of the facts and issues of the failure.

ANALYSIS OF 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" (Gakpo, 2012). This section analyses the facts and issues relating to what caused the failure of Lehman Brothers? Could it have been prevented? How? The way-forward.

4.1. What caused the failure of Lehman Brothers?

For every corporate failure, there is a possible cause; hence LEH is not an exception. Some of the probable causes are:

- **Breach of classic rule of banking**

The Lehman Brothers failed because they breached the classic rule of banking (Allen & Moessner, 2011; Tebogo, 2012). Traditionally, the norm was that the building societies as well as financial institutions that specialize in the real estate industry use the deposits they obtain from their investors to lend to home purchasers in the form of what is commonly referred to as mortgages (Cassim et. al., 2009). However, there must be utmost care to ensure that both the property to be purchased and the borrower are assessed. The property is assessed by the lending institution to ascertain that the value quoted by the developer is not inflated and unnecessarily exaggerated whilst the borrower is assessed to ensure that they are credit worthy (Bris, 2010; Tebogo, 2012). To accurately ascertain a borrower's credit worthiness, a lending institution must critically assess the borrower's nature of employment, credit history, wages commanded and the nature of financial commitment. This assessment henceforth determines whether the borrower will be able to service the mortgage or not. The LEH broke this classic banking rule in two major ways. Firstly, the firm did not closely scrutinize its borrowers and thus

ended up lending its money to people with bad credit records. In financial jargon, this people are often known as subprime borrowers¹⁶ (Bris, 2010; Tebogo, 2012). This implied that the likelihood of LEH's borrowers defaulting on their mortgages was higher than that of them meeting their monthly mortgage premiums. Secondly, instead of lending out funds that had been secured from deposits made by their other customers, LEH opted to borrow on a short-term basis directly from the repo market. This implied that the LEH was borrowing at high interest rates but on short-term basis but lending to its borrowers on a long-term basis and at relatively low interest rates. This strategy worked well for LEH until the interest rates started soaring in the early years of the economic recession (Connerty, 2010).

- **“ninja or liar loans”**

The LEH also specialized in what is commonly referred to as “ninja (no income, no job, no assets) or liar loans.” Basically, ‘ninja loans’ can be described as the loans offered to borrowers without any form of collateral,¹⁷ this implies that this loans target the borrowers who have no jobs, no income and no assets to use as security. ‘Liar loans’ on the other hand refer to low-documentation or non-documentation mortgages (Bris, 2010; Tebogo, 2012). Both the liar and ninja loans played a crucial role in the failure experienced by the LEH (PwC, 2009; Tebogo, 2012). This is because such loans are renowned for being the breeding ground of unethical behaviour in the financial circles. In this regard, it is now clear that one of the reasons why intervention measures directed at rescuing the LEH failed was mainly due to the financial as well as accounting fraud that was deeply entrenched in the structure of the firm (PwC, 2009; Tebogo, 2012). These

¹⁶ People who may have difficulty maintaining the repayment schedule (Tebogo, 2012)

¹⁷ A borrower's pledge of specific property to a lender, to secure repayment of a loan (Bris, 2010)

loans were banned in the UK due to the pivotal role they played in the global economic recession that ensued in the year's preceding 2007 (Bris, 2010; Tebogo, 2012).

- **Leverage**

LEH's leverage strategies put it in a precarious position, making its failure inevitable.

Despite the fact that LEH was already deep in the high risk financial business by specializing in subprime, ninja and liar mortgages, the firm's executive still found it prudent to borrow directly from the repo market to sustain its day to day financial operations. Generally, the recommended leverage that an investment institution is supposed to have is 10:1; this implies that for every \$1million that the institution has either in terms of capital or asset base, the firm is supposed to lend its borrowers a maximum of \$10million (Superintendent of Documents, 2010). By the time LEH was collapsing, its leverage stood at 44:1. This implied that the company's assets as well as capital base stood at a paltry \$18billion compared to the staggering \$800billion that was the net worth of the firm's loans to borrowers (Tebogo, 2012).

- **Repo market**

Another probable reason why the LEH collapsed is the fact that by borrowing directly from the repo market. Lehman used Repo 105 to remove some \$50 billion from its books. By this time, Lehman's dependence on the short-term repo market had also increased dramatically and was nearly 26% of its liabilities or twice that of peer banks (Bernanke, 2009; Valukas, 2010). The firm exposed itself to securitization.¹⁸ This practice is directed at passing liabilities and losses from the lending institution to investment institutions in a move that is commonly referred to as

¹⁸ Securitization can be defined as the practice under which lenders package up mortgage loans and sell them on to investment banks in the form of mortgage-backed securities; and in the process getting the loans off the lenders' balance sheets (Superintendent of Documents, 2009)

“slicing” and “dicing” in the financial circles (Superintendent of Documents, 2010). Apart from specializing in subprime loans, the LEH specialized in securitization mortgages, as well. This implies that the firm used credit derivatives to spread its financial risk. Basically, credit derivatives were designed in such manner that tens of thousands of mortgages were placed in pools to spread out the risks and then divided into slices, known as tranches, based on quality. The setback in this arrangement is the fact that these securitization mortgages were still backed by the subprime loans (Connerty, 2010). Thus, whenever a failure in the subprime mortgages is experienced in the financial system as was the case in 2007 and 2008, then the investment institutions such as the LEH and Bear Stearns that heavily relied on securitization mortgages had no option but to experience liquidity problems that eventually resulted in their failures (Tebeogo, 2012).

- **Less regulation**

Deficient and dysfunctional financial market regulation in the US and international regulatory arbitrage¹⁹ towards the US financial market largely contributed to the financial market crises (Winkler, 2010). Unlike the commercial banking sector that is strictly regulated and monitored by the treasury, the investment banking sector is less regulated. This implies that it was thus difficult for investment institutions like the LEH to avoid system risks associated with the shadow banking²⁰ financial system (Duffie, 2010; Tebeogo, 2012). A lack of stringent regulatory measures also pointed to the lack of incentive on the government’s part to intervene whenever shadow financial institutions such as the LEH faced liquidity

problems. In fact prior to the collapse of the LEH, commercial banks were and are still regulated by the Federal Reserve whilst the investment banks are not (Wallison, 2009). Thus, it is clear that commercial banks have to adhere to the 10:1 leverage whilst the investment banks have no limit as far as leverage is concerned. In addition to this, this lack of regulatory measures might partly explain why the government could understand the complicated nature of the relationship between the LEH and other financial institutions both in the US and abroad (Mishkin, 2010). This misunderstanding of the shadow banking financial system can be said to be the sole motivation by the federal government in not initiating rescue measures targeted at mitigating the failure and collapse of the LEH.

- **Lehman’s business strategy**

Lehman followed a very aggressive business strategy that consisted in using its own capital to expand its commercial real estate, private equity, and leveraged lending. Lehman pursued a destructive growth strategy, took on significant risk, and substantially increased leverage on its capital position in the industry (Geithner, 2008; Valukas, 2010; Williams, 2010). When the subprime mortgage business crisis became worst-off, Lehman was tactically slow to recognize the crisis and its multiplying effect on commercial real estate and the financial industry at large. Lehman’s executives posit that the problems of the subprime mortgage market provided the firm the opportunity to aggressively advance its strategy. While other financial institutions totally withdrew, Lehman made the conscious decision to increase its efforts, hoping to profit from a counter cyclical strategy of using its own capital to expand into commercial real estate, private equity, and leveraged lending (Duffie, 2010). Its top executives were not perturbed about the warning signs of the subprime mortgage disasters. Lehman significantly and repeatedly exceeded its own internal risk limits and controls in the pursuit of its new

¹⁹ A practice whereby firms capitalize on loopholes in regulatory systems in order to circumvent unfavourable regulation (Winkler, 2010).

²⁰ The shadow banking system is a term for the collection of non-bank financial intermediaries that provide services similar to traditional commercial banks (Duffie, 2010).

business strategy (Geithner, 2008; Robinson, 2009; Valukas, 2010; Williams, 2010). When the strategy eventually became a flop, Lehman embarked on a number of strategies to avoid demise including misrepresentation of its liquidity and financial position. This strategy is mainly to blame for Lehman's liquidity challenges as well as the losses the firm started experiencing from June 2007; and the overdependence on the repo market to fund its daily operations had risen to the tune of 26% of its total liabilities (PricewaterhouseCoopers, 2009). According to what currently constitutes the most exhaustive investigation of Lehman's fall had to do with a dramatic change of Lehman's business strategy that took place in some other areas than the subprime market initiated in 2006 (Cassidy, 2008; Cochrane, 2009; Bernanke, 2009; Mollenkamp, 2008; Sorkin, 2009; Swedberg, 2010; Valukas, 2010).

- **Management style**

Since the CEO, Richard S. Fuld, resumed office, like many CEOs of investment banks on Wall Street, ruled the firm in an authoritarian manner (Valukas, 2010). His leadership culture can be simply described as being both aggressive and competitive (Duffie, 2010). Effectively, Fuld separated himself from the world of the ordinary and always lived in the world of the extraordinary. Despite the fact that Fuld's leadership style was instrumental in helping steer the company through many financial crises in the past, his leadership also led to the demise of LEH. It is now clear that LEH collapsed because of liquidity rather than insolvency challenges (Connerty, 2010). This can be traced back to Fuld's style of paying his employees mindboggling wages and bonuses that consequently ate up into the firm's pre-tax profit and hence predisposed the firm to high-risk borrowing from the repo market. Additionally, it later emerged that the management encouraged the culture of high-risk taking amongst its employees through the bonuses. Furthermore, Fuld is

now known for his dictatorial style of leadership; he is renowned for quickly and silently neutralizing any dissenting opinions to his management style (Bris, 2010). Fuld neither succeeded in selling Lehman as an infusion of capital from Warren Buffet²¹, nor arranged a deal with Morgan Stanley²², Goldman Sachs²³ and Bank of America (e.g., Story & White 2008, Sorkin 2009). He told a journalist that "I will never sell this firm" (Gowers 2008). So, one of the reason of failure may be attributed to the Lehman CEO for his overconfidence, greed for money and failure to recognize and accept the momentous crisis (Latifi, n.d).

- **Power struggle**

To conclude, power struggle has also been cited by many authors as one of the probable causes of the failure (Gakpo, 2012; Tibman, 2009; Auletta, 1987; Cassidy, 2008; Cochrane, 2009; Bernanke, 2009; Mollenkamp, 2008; Sorkin, 2009). Chris Pettit was Fuld's second-in-command for two decades until November 26, 1996, when he resigned as President and board member. Pettit lost a power struggle with his deputies (Steve Lessing, Tom Tucker, and Joseph M. Gregory) back on March 15 that year that caused him to relinquish its COO title, likely brought about after the three men found about Pettit's extramarital affairs, which violated Fuld's unwritten rules on marriage and social etiquette (Gakpo, 2012). Bradley Jack and Joseph M. Gregory were appointed co-COOs in 2002, but Jack was demoted to the Office of the Chairman in May 2004 and departed in June 2005 with a severance package of \$80 million, making Gregory the sole COO (Gakpo, 2012). While Fuld was considered the face of

²¹ An American business magnate, investor, and philanthropist. He is widely considered the most successful investor of the 20th century (Aline, 1997).

²² An American multinational financial services corporation headquartered in the Morgan Stanley Building, Midtown Manhattan, New York City.

²³ An American multinational investment banking firm that engages in global banking, securities, investment management, and other financial services primarily with institutional clients.

Lehman, Gregory was in charge of day-to-day operations and influenced culture to drive the business. One reason for Lehman's bankruptcy was the fact that anyone who was perceived as a threat by Fuld was quickly eliminated including a number of critics who earlier on realized that Lehman was headed for serious trouble (Cassidy, 2008; McDonald & Robinson, 2009; Tibman, 2009). As a result of US\$2.8 billion second-quarter loss, there was a major management shakeup in Lehman, Fuld and deputies were stripped of their authority. Consequently, Joe Gregory resigned as President and COO, and Eric Callan as the CFO. Bart McDade was named to succeed Gregory as President and COO, as several senior executives had threatened to leave if McDade was not promoted. McDade took charge and brought back Michael Gelband and Alex Kirk, who had previously been pushed out of the firm by Gregory for not taking risk (Auletta, 1987; Cassidy, 2008; Cochrane, 2009; Bernanke, 2009; Mollenkamp, 2008; Sorkin, 2009)

4.2 Could it have been prevented? How?

Although the international banking industry had witnessed several bankruptcies over the past two decades, many analysts believe that Lehman's demise could have been prevented (Valukas, 2010; Lartey, 2012; Wilks, 2008; Lang & Jagtiani, 2010; Swedberg, 2010; Latifi, n.d). LEH's failure could have been prevented in the following ways:

- **Proactive and effective risk management measures**

Lehman's collapse could have been avoided if proactive measures were taken by senior management to ensure effective risk management²⁴ in their operations (Lartey, 2012). 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 (Lartey, 2012). Lartey (2012) argues that the 2007-2008 financial crises 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. Lehman's management should have aggressively addressed the contractual, operational, and technical challenges posed by counterparty risk²⁵, particularly on bilateral derivative trades and repurchase agreements. 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 speculations (Wilks, 2008). Lang & Jagtiani (2010) suggest that "*based on information available 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*".

- **Executives pay**

There were lots of controversies surrounding the executives' pay during the collapse (Lartey, 2012). On October 17, 2008, CNBC reported that several Lehman executives have been subpoenaed in a case relating to securities fraud (Lartey, 2012). The author asserts that 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

²⁴ The process of identification, analysis and either acceptance or mitigation of uncertainty in investment decision-making (Lartey, 2012)

²⁵ A counterparty risk, also known as a default risk, is a risk that a counterparty will not pay as obligated on a bond, credit derivative, trade credit insurance or payment protection insurance contract, or other trade or transaction (Wilks, 2008).

to creditors and shareholders. The high executive pay would definitely have serious repercussion on the liquidity position of Lehman. It is therefore evident that liquidity problem had also contributed to the failure (Valukas, 2010). A little bit of moderation in the executive pay would have ameliorated the financial position.

- **Business judgment**

It has become very obvious that Lehman Brothers made a lot of wrong business judgements in specializing in subprime, ninja, liar mortgages and repo 15 transactions. For instance, Lehman's executive found it prudent to borrow directly from the repo market to sustain its day to day financial operations.

This was adjudged wrong business decision. Ideally, a financial institution is supposed to invest money deposited by its clients to invest rather than resorting to borrowing directly from the repo market (Superintendent of Documents, 2009). The only time when it is advisable that a firm borrows directly from the repo market is when the lending interests are substantially low and all indicators point at the fact these interest rates would remain so for long. However, when the interest rates begin to appreciate at alarming degrees, it is usually advisable for a firm to stop borrowing directly from the repo market and rely solely on the deposits made by its clients to service its investment operations (Superintendent of Documents, 2009). Following this basic principle could have prevented the failure. According to Valukas (2010), the conduct of Lehman's executives "ranged from serious but non-culpable errors of business judgment to actionable balance sheet manipulation." The examiner's report criticizes Lehman's failure to disclose its use of the "Repo 105" accounting device. According to the report, accounting rules permitted Lehman to treat this transaction as sales instead of financings, so as to remove assets from the balance sheet (Wong & Smith, 2010).

- **Buyer or Bailout**

Lehman Brothers failed to be rescued by a buyer or a government bailout. For example, Bear Stearns Companies, Inc. a New York based global investment bank and securities trading and brokerage firm also failed in 2008 as part of the global financial crisis and recession but was subsequently sold to JPMorgan Chase. 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 distress²⁶ (Lartey, 2012). 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, as cited in Swedberg, 2010).

- **Early Warnings**

There were enough early warnings and signs of risk limit overages, funding concerns, and the deepening subprime crisis (Valukas, 2010) that Lehman's management and board could have taken proactive measures to avert the failure. From May to August 2007, the financial crisis that had previously been contained to the subprime residential mortgage market began to spread to other markets, including the commercial real estate and credit markets, where Lehman was particularly active (Valukas, 2010). These concerns escalated in June and

²⁶ A condition when promises to creditors of a company are broken or honoured with difficulty (Lartey, 2012)

July 2007, when two Bear Stearns hedge funds imploded, leading to panic in the credit markets and concerns more generally that the subprime crisis would spill into the broader economy (Valukas, 2010). Finally, Lehman Brothers' financial statements portrayed signs of financial distress that could have been addressed years before its failure in 2008 (Le Maux and Morin, 2011). There were signs of: chronic inability to generate cash from operating activities; massive and systematic investments in working capital²⁷ items, and even more intensive investments in financial instruments; systematic use of external financing (mainly long-term debt) to offset operating deficits; and steady deterioration of the cash situation over three consecutive years (Le Maux and Morin, 2011). The failure could have therefore been prevented by instituting and enforcing sound and effective corporate governance principles by the board. For example, performing stress test using the Altmans' Z-Score²⁸ a year or two before the collapse could have vividly reveal the true financial health of the company and proper diagnose sought to avert the demise.

4.3 The way-forward

From the above analysis of the failure of the Lehman Brothers, it is apparent that the major reason why the firm collapsed is the failure of the shadow banking financial system (Tebogo, 2012). For this glitch to be rectified in the financial system, policy response is of utmost importance (Lenza, Pill, & Reichlin, 2009). This implies that there is need to assess the risk factor as far as financial systems are concerned; this can only be achieved through crisis simulation exercises and stress testing, for example making use of Altmans' Z-Score. Effectively, it is necessary that the relationship between

investment institutions should be understood and the global footprint of each investment firm should be taken into account in formulating financial policies (Scott, 2011). The following strategies might be useful in future if the failures of the financial systems are to be avoided:

- **Stringent regulatory measures**

There is need for the industry regulators to enforce more stringent measures to ensure that investment banks do not bite more than they can chew. From the LEH case study, it is clear that most investment firms entered the financial turmoil with obscene leverage ratios, insufficient capital bases, and inadequate liquidities buffers (McKibbin & Stoeckel, 2009). This implies that the regulatory measures should be directed at ensuring that investment banks have more realistic and manageable leverage ratios, that the firms also have quality and quantity capital bases to buffer the financial institution from losses, and have more concrete surety. Finally, the financial institutions must have a good number of liquid assets at all time so as to be able to withstand any failures in the financial market. Generally, there is need for standards to be enforced and regulated as far as capital, leverage and liquidity are concerned. The emergence of Basel III²⁹ is a right step in this direction.

- **Macro-prudential regulators**

Industry regulators can also use macro-prudential regulators to avoid the eventuality of future breakdown of the financial system (Tebogo, 2012). Basically macro-prudential regulators refer to use of best applicable strategies and methodologies to stabilize the whole industry instead of targeting troubled investment banks alone (Zepp-LaRouche, 2012). The basic principles behind macro-prudential regulators are independence and accountability of supervisors, use of market discipline, a lender-of-last-resort policy

²⁷ The capital of a business that it uses in its day-to-day trading operations, calculated as the current assets minus the current liabilities (Le Maux and Morin, 2011).

²⁸ The Z-score formula for predicting bankruptcy was published in 1968 by Edward I. Altman, who was, at the time, an Assistant Professor of Finance at New York University (Altman, 2000).

²⁹ Basel III (or the Third Basel Accord) is a global, voluntary regulatory standard on bank capital adequacy, stress testing and market liquidity risk.

governed by the Bagehot principles, no injection of public money, and cost-minimizing resolution of failures (Tebogo, 2012). Due to this perceived regulatory failure of the banks during the financial crisis of 2007–2008, the UK government decided to restructure financial regulation and abolish the Financial Services Authority (FSA) (Parker & Masters, 2010). With effect from 1 April 2013, FSA's responsibilities were then split between two new regulators: the Prudential Regulation Authority (PRA) and the Financial Conduct Authority (FCA). The PRA is responsible for the prudential regulation and supervision of banks, building societies, credit unions, insurers and major investment firms (Parker & Masters, 2010). The introduction of the PRA in the UK is recommendable stride in forestalling future failures.

- **Expanding safety nets**

This is another strategy that industry regulators can use to avoid the occurrence of another financial crisis in the future (Tebogo, 2012). This involves providing all-embracing guarantees to both creditors and depositors of both commercial and investment banks (Rochet, 2010). The sole purpose of expanding safety nets is to maintain funding especially during tough economic times and to restore investor confidence especially after a major economic crisis like the one experienced between the years 2007 and 2010. This strategy is thus directed at stabilizing an already unstable financial system. However, for this strategy to be effective there is need for it to be implemented on a long term rather than short term basis (Tebogo, 2012).

- **Government backed takeovers of failing investment entities**

This strategy was successful in resuscitating some of the failing firms which include Bear Stearns, HBOS³⁰, and

³⁰ HBOS plc is banking and insurance company in the United Kingdom, a wholly owned subsidiary of the Lloyds Banking Group, having been taken over in January 2009.

Wachovia³¹ (Zepp-LaRouche, 2012). Alternatively, these failing investment institutes can be placed under conservatorship as was done for Fannie Mae and Freddie Mac³² (Tebogo, 2012). On the other hand, if the government in question is economically stable, then the most appropriate strategy is to nationalize these failing financial institutions; some of the most successful nationalized investment firms include Northern Rock, Bradford & Bingley (Scott, 2011). In case all the aforementioned strategies fail to bear any tangible fruits, then the failing investment institutions have no option but to undergo planned closures (Tebogo, 2012).

- **Boards and management**

Finally, boards and managements need the ability to effectively measure, monitor, and manage market, credit, and liquidity risks at an enterprise level and be committed to performing liquidity stress testing to determine the firm's maximum liquidity outflow on a regular basis (PwC, 2009). Management must have accurate daily views of positions, values, and liquidity measures. The ability to monitor and quickly react to changes in liquidity of various asset classes remains essential to maintaining solvency and financial creditability and viability in the marketplace.

CONCLUSION

The collapse of LEH had immense negative consequences on the American economy in particular and the global economy in general owing to Lehman Brothers' extensive global footprint in the debt, equity, and derivatives markets (PwC, 2009). Analysis of facts and issues reveals that the collapse could have been prevented

³¹ Wachovia (former NYSE ticker symbol WB) was a diversified financial services company based in Charlotte, North Carolina. Before its acquisition by Wells Fargo in 2008, Wachovia was the fourth-largest bank holding company in the United States based on total assets (Zepp-LaRouche, 2012).

³² The Federal takeover of Fannie Mae and Freddie Mac refers to the placing into conservatorship of government-sponsored enterprises Fannie Mae and Freddie Mac by the U.S. Treasury in September 2008.

to a large extent had measures been taken to conduct business using financially sound means. It is therefore necessary that regulatory mechanisms be put in place in order to regulate investment banking and prevent such occurrences in the future (Valukas, 2010).

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 these accounting and financial statement frauds (Tebogo, 2012). Ever-changing regulatory and other critical developments affecting domestic and international financial institutions can be challenging - and are often overwhelming. As a result, external auditors must continually anticipate, understand, and resolve emerging issues confronting their clients and at the forefront of the industry.

REFERENCES

- Allen, W. A., & Moessner, R. (2011). The international propagation of the financial crisis of 2008 and a comparison with 1931. BIS Working Papers: 348, 1-31
- Altman, E. I. (2000). Predicting financial distress of companies.
- Arnold, B., & de Lange, P. (2003). Enron: an examination of agency problems, critical perspectives on Accounting 15 (2004) 751-765.
- Auletta, K. (1987). Greed and glory on Wall Street: The fall of the house of Lehman, Warner Books.
- Baba, N., & Packer, F. (2009). From turmoil to crisis: Dislocations in the FX swap market before and after the failure of Lehman Brothers. Retrieved from warwick: http://www2.warwick.ac.uk/fac/soc/wbs/subjects/finance/confpapers09/baba_packer_paper.pdf
- Bernanke, B. (2009). Too big to fail is one of the biggest problems we face in this country.
- Bris, P. A. (2010). The Lehman Brothers Case: A corporate governance failure, not a failure of financial markets. Lausanne: IMD International.
- Bruno, J.B. (2008). Lehman shares slip on plans to auction off unit, consider sale of company, The Seattle Times, Associated Press.
- Casserley, D., Härle, P., & Macdonald, J. (n.d). Should commercial and investment banking be separated? The historical background to the current debate
- Cassidy, J. (2008). Anatomy of a meltdown: Ben Bernanke and the financial meltdown. New Yorker, 1, 49-63.
- Cassim, F., Rivera, R. K., Rebib, R., Reuber, T., & Wannaprapa, K. (2009). The Bankruptcy of Lehman Brothers and its acquisition by Nomura, Zurich: Swiss Federal Institute of Technology
- Connerty, A. (2010). The credit crunch: the collapse of Lehman Brothers – and a Hong Kong scheme to handle Lehman claims, Amicus Curia, 83, 1-8.
- Dash, E. (2008). Struggling Lehman plans to lay off 1,500, The New York Times.
- Drea, A. (2009). The 25 Worst business failures in history.
- Duffie, D. (2010). The failure mechanics of dealer banks. Journal of Economic Perspective, 24(1) 51-72.
- Duncan, S, D. (2012). Causes of Collapse: The Failure of Lehman Brothers Holdings, Inc. Available at SSRN: <http://ssrn.com/abstract=2192284> or <http://dx.doi.org/10.2139/ssrn.2192284>
- Fuld, R. (2008). Statement of Richard S. Fuld, Jr. at the October 6, 2008 hearings on Causes and effects of the Lehman Brothers Bankruptcy by the Committee on Oversight and Government Reform of the House of Representatives, Congress of the United States.
- Gakpo, M. D. Y. (2012). The fall of Lehman, Available at SSRN: <http://ssrn.com/abstract=2310846> or <http://dx.doi.org/10.2139/ssrn.2310846>.
- Geithner, T. (2008). Reducing systemic risk in a dynamic financial system, remarks on June 9, and 2008 at the

- Economic Club of New York, New York City, Federal Reserve Bank of New York.
- Grossman, P. Z. (1987). *American Express: The Unofficial history of the people who built the great financial empire*. New York: Crown Publishers
 - Grumet, L. (2009). Bring back Glass-Steagall, *CPA Journal*, 79(12), 7.
 - Lang, W. W., & Jagtiani, J. (2010). The Mortgage and financial crises: the role of credit risk management and corporate governance, *Atlantic Economic Journal*, Retrieved from <http://fic.wharton.upenn.edu/fic/papers/10/10-12.pdf>.
 - Lartey, R. (2012). What caused the collapse of Lehman Brothers? Available at SSRN: <http://ssrn.com/abstract=2130200> or <http://dx.doi.org/10.2139/ssrn.2130200>
 - Latifi, P. (n.d). *Lehman Brothers' rise and fall: From hero to dust*
 - Lawrence, G. M. (2009). A colossal failure of common sense: The inside story of the collapse of Lehman Brothers, *Crown Business*.
 - Le Maux, J. & Morin, D. (2011). Black and white and red roll over: Lehman Brothers' inevitable bankruptcy splashed across its financial statements, *International Journal of Business and Social Sciences*, 2(20)
 - Lenza, M., Pill, H., & Reichlin, L. (2009). Monetary policy in exceptional times. *Economic Policy Fiftieth Panel Meeting Hosted by the Universiteit van Tilburg*, Tilburg: Economic Policy, 1-34.
 - Lyke, B. (2002). WorldCom: The accounting scandal CRS report for congress.
 - McKibbin, W. J., & Stoeckel, A. (2009). *The Global Financial Crisis: Causes and Consequences*. The Lowy Institute for International Policy. Working papers in international Economics 2(9), 1-36.
 - Melis, A. (2005). Corporate governance failures: to what extent is Parmalat a particularly Italian Case?
 - Mishkin, F. S. (2010). Over the cliff: from the subprime to the global financial crisis, *Nber Working Paper Series*, 16609, 1-23.
 - Mollenkamp, C. (2008). Lehman files for bankruptcy, *Wall Street Journal*.
 - Monem, R. (n.d). The One-Tel collapse: lessons for corporate governance
 - Ohoukoh, K. (2012). What caused the failure of Lehman Brothers? Could it have been prevented? How? Available at SSRN: <http://ssrn.com/abstract=2277574> or <http://dx.doi.org/10.2139/ssrn.2277574>
 - Parker, G, & Masters, B. (2010, June). "Osborne abolishes FSA and boosts Bank". *Financial Times*
 - PricewaterhouseCoopers (PwC) (2009). *Lehman Brothers' bankruptcy: Informational presentation for our clients*. New York: PricewaterhouseCoopers' Financial Services Institute (FSI).
 - Rajagopalan, N., & Zhang, Y. (2009). Recurring failures in corporate governance: a global disease?
 - Robinson, P. (2009). A colossal failure of common sense: The inside story of the collapse of Lehman Brothers. New York: Crown Business.
 - Rochet, J. C. (2010). Systemic risk: changing the regulatory perspective. *International Journal of Central Banking*, 6(4), 259-279.
 - Scott, H. (2011). Contagion in the financial crisis and what to do about it in the future. Retrieved from: http://isites.harvard.edu/fs/docs/icb.topic954703.files/Paper04_Scott_10-4.pdf
 - Sorkin, A. (2009). The race to save Lehman Brothers", *The New York Times*, Retrieved from: <http://www.nytimes.com/2009/10/20/business/economy/20sorkin.html?pagewanted=all>
 - Story, L. & Dash, E. (2008). Banks fear next move by shorts", *The New York Times*, Retrieved from <http://www.nytimes.com/2008/09/15/business/15short.html>
 - Superintendent of Documents. (2010). *the causes and effects of the Lehman Brothers bankruptcy*, Washington DC: U.S. Government Printing Office.
 - Swedberg, R. (2010). *The Structure of Confidence and the Collapse of Lehman*

- Brothers. *Research in the Sociology of Organization*, 30A, 71-114.
- Taylor, J. B. (2008). The financial crisis and the policy responses: An empirical analysis of what went wrong. Available at <http://www.stanford.edu/~johntayl/FCPR.pdf>.
 - Tebogo, B. (2012). The failure and collapse of the Lehman Brothers, Available at SSRN: <http://ssrn.com/abstract=2060758> or <http://dx.doi.org/10.2139/ssrn.2060758>
 - Tibman, J. (2009). *The murder of Lehman Brothers: An insider's look at the global meltdown*. New York: Brick Tower Press.
 - Turner, A. (2009). A regulatory response to the global banking crisis, March edition of the Turner review, London: Financial Service Authority.
 - Valukas, A. R. (2010, March). *Lehman Brothers Examiner's Report, 1&2*. Retrieved from SMC Blackboard Learning Resource.
 - Wallison, P. J. (2009). Government housing policy and the financial crisis, *Cato Journal*, 397-405.
 - White, B. (2008). Investigators said to take closer look at Lehman", *The New York Times*. Retrieved from: <http://www.nytimes.com/2008/10/18/business/18lehman.html>
 - Wilks, A. (2008, October). *Dangerous derivatives at the heart of the financial crisis*. Retrieved from: <http://www.eurodad.org/whatsnew/articles.aspx?id=3024>.
 - Williams, M. T. (2010). *Uncontrolled risk: The lessons of Lehman Brothers and how systemic risk can still bring down the world financial system*. McGraw-Hill.
 - Winkler, A. (2010). *The financial crisis: A wake-up call for strengthening regional monitoring of financial markets and regional coordination of financial sector policies?* ADBI working paper series, 199
 - Wong, G. & Smith, A. (2010). *What killed Lehman* Retrieved from: http://money.cnn.com/2010/03/12/news/companies/lehman_examiner/index.htm
 - Zepp-LaRouche, H. (2012). Listen to the only competent economist: Lyndon La Rouche. *EIR Economics*, 45-47.

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