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Lehman Brothers case: Failure, Prevention and Recommendations

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Abstract

The recent credit crisis erupted in August 2007, with the failure of two Bear Stearns hedge funds, was a warning sign of what would follow. However, most firms did not take advantage of those signals to correct their weaknesses, and remained impassive to the new economic reality. Indeed, Lehman Brothers as one of them did not take the opportunity to reduce the risky mortgage portfolio, which in retrospect would prevent the future bankruptcy of the company. It was September 15, 2008 when Lehman Brothers filed for Chapter 11 bankruptcy and generated a tsunami of recession to financial markets. Johnson and Mamun (2012) refer, for example, that on the same day the stocks of banks and primary dealers declined by 2.90% and 6.00% respectively. Five years after the collapse of Lehman Brothers, financial markets still remain as vulnerable as it were on the eve of collapse. The paper seeks to address the exact factors that led to the failure and consequently the bankruptcy event of Lehman, as well as to examine whether it could have been prevented. Finally, research will make recommendations for going forward and ways to avoid another future failure of a financial institution.

Keywords: Lehman Brothers, Banking, Bankruptcy, Crisis, Bankruptcy, Repo 105, Accounting standards, Altman's Z-score, Ethical standards.

1. Introduction

1.1 Facts and issues

The United States had to deal with a number of banking crises during its modern history as a nation. During the Great Depression with the Crash of 1929, a total of 1344 US banks failed. Between 1980 and 1994, 1.617 banks failed in the United States (Jalbert, et al., 2003). The most recent financial crisis begun in 2008 by the fall of Lehman brothers and since October, 2013 more than 491 banks went bankrupt.

1.2 The history of Lehman Brothers

When Henry Lehman and brothers Emanuel and Mayer set up in Alabama the homonymous business in the middle (1850) of the 19th century, they could not imagine that their small shop would evolved to the fourth largest investment bank in the US behind Goldman Sachs, Morgan Stanley, and Merrill Lynch at the beginning of the 21st century. Fifty years later, Lehman Brothers Holdings Incorporated (Lehman) assumed the functions of an investment bank. In modern times, the Lehman's core business included, except for investment banking, equity and fixed-income sales and stock trading, research, investment management, private equity, and private banking (McCracken, 2009). In fact, the company followed the growth of the United States and its excessive desire for prosperity and international prominence.

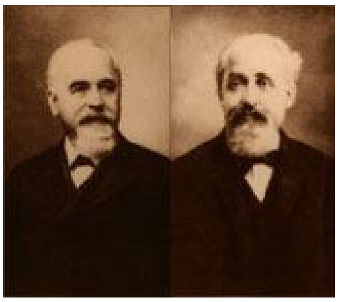

Figure 1
Brothers Emanuel and Mayer

Figure 2
Offices for Lehman Durr & Company, 1874

The most recent financial results of Lehman before failure did not foretell what would follow. In fact many ratios showed diametrically opposed business financial position. For example, Robinson (2009) stated that Lehman's stock closed on 12 September, 2008 under $4, a decline of nearly 95% compared to purported earning values for January 2008 ,while Bruno (2008) underlined that its revenue was $60 billion on January 29, 2008; $4 billion in excess comparing to earnings for the period ending November 30, 2007. Unfortunately, the subsequent events confirmed the pessimistic translation of those economic results.

The domino in business effects had already begun for Lehman in August 2008, when firm released 6% of its work force, 1.500 people, just ahead of its third quarter reporting (Dash, 2008; Gapko, 2012). Fearing bankruptcy, series of intensive meetings were held over the weekend before bankruptcy among US Government and other key players. This meetings were particularly conspicuous with the absence of suitable regulation mode, as long as it there was no legal authority for any of the stakeholders to make direct capital investment in Lehman to avoid demise. As it was expected, Lehman Brothers filed for Chapter 11 bankruptcy proceedings in 15th September 2008, a date which will forever be remembered as the time upon which Lehman Brothers also became the largest bankruptcy in US history, owing USD$613bn to creditors (Kirke, 2011).

The consequences of Lehman bankruptcy were boisterous for the markets, as the Dow Jones index declined by more than 500 points by the end of the trading session of that sensational date. The rescue package which the government failed to provide in case of Lehman Brothers, finally ended up to AIG on September 15 saving it from a sure collapse. The next day found the Primary Fund, one of the biggest money market fund, trying to share price in less than $1 per share (Gakpo, 2012), while Congress exceeded the legal reefs setting up a $700 billion Troubled Asset Relief Program (TARP) rescue package.

2. The causes of failure

2.1 Facts and issues

The period, between the terrorist attacks of 2001 and the financial crisis of 2008, was marked by the flourishing of the housing market in USA. As Hudson (2007) refers, Lehman moved forward trying to rip profit from this feasible investment by acquiring 5 mortgage lenders and by becoming a leader in the production of securitized mortgage. However, the excessive pressure placed on unqualified borrowers by encouraging them to buy houses and inflate their debt was Lehman's disastrous step. The recent financial crisis revealed such problems and Lehman began to suffer huge losses.

There are a number of contributing factors which led to the collapse of Lehman such as poor risk and asset management, complex structure of the company and managerial problems, Repo 105 transaction and low ethical standards.

2.2. Poor risk and asset management

As mentioned before, Lehman struggled to gain a dominant position in the mortgage market. Exploiting the booming of the house market in the beginning of 21st century, Lehman did not hesitate to borrow excessively and invest all the proceeds in the mortgage market (Latifi, 2012). Lehman showed the same naivety even when the subprime mortgage business crisis became worst and had to react fast. Unlike those above, Lehman was tactically slow to recognize the crisis and it's multiplying effect on commercial real estate and the financial industry at large (Gakpo, 2012) and when it did, Lehman's executives decided that it was an opportunity to aggressively advance their strategy.

Particularly, between 2006 and 2007 the company expanded broadly in commercial real estate, private equity and leveraged lending using its own capital (Valukas 2010). Moreover, in the same period Lehman's portfolio became excessively large in relation to the shareholders' equity as long as they continued to underwrite more and more mortgage backed securities. As a result, the company doubled its holdings in illiquid investments from $87 billion in 2006 to $175 billion at the end of the first quarter of 2008 without helping its cash flow as Lehman couldn't use these assets to generate cash on short notice or as collateral to borrow funds (Dutta, et al., 2010). Given the risk derived by the uncertainty of those asset valuations, there was no appropriate way to hedge these investments. In addition, what it seemed as a safe investment under the protection of CDOs and CDSs turned out to be disastrous when the crisis erupted as long as CDOs and MBSs investors became nervous about their exposure to such assets and stopped investing in commercial papers (Dutta, et al., 2010). Eventually, when Lehman realized that this strategy had already led the company to the brink of bankruptcy, it committed a series of misguided actions including misrepresentation of its liquidity and financial position as described later in this paper.

2.3. Complex structure and managerial issues

The complex structure of Lehman was one cause along with numerous other issues which lead to the bankruptcy of the company. In fact there were many deficiencies in their business setup. For example, the board of directors, which was composed of ten individuals, was incommensurate in relation to the business entities worldwide. This is because Lehman Brothers was conducting business in global scope having about 3000 legal entities which made the situation incredibly complicated (Steinberg & Snowdown, 2009).

In addition, the management structure was extremely ineffective. As Azadinamin (2013) refers, Lehman Board of Directors was composed from a number of members who did not have the required financial background to lead such a globally oriented mechanism. Most of them were retired or had irrelevant experience and lacking knowledge in relation to the one needed for credit institutions (massive securitization, credit default swaps, derivatives trading and all others structured products of finance).

A direct result of this weak and complex structure of Lehman was the creation of many managerial issues within the company, which also contributed to the collapse of Lehman. The most easily observed weakness was that the corporate culture of Lehman was a risk-oriented one. It is no coincidence that the CEO Richard Fuld was the director of all issues related to risk management, strategies, goals and objectives. Duffie (2010) described his leadership culture as being both aggressive and competitive, while no oversight from the board, risk committee or Risk Management Department occurred (Latifi, 2012). Besides his dictatorial style of leadership, there were voices blaming him about the strategy followed. Particularly, Fuld had the illusion that the problems in the subprime mortgage market would not spread, and decided that Lehman had to aggressively advance when its competitors were pulling back (Duffie, 2010). When future historians evaluate this strategy, they will probably blame it for Lehman's liquidity challenges as well as the losses the firm started experiencing from June 2008.

Regarding the employees, Fuld was very generous paying huge wages and bonuses reducing profits before taxes and, hence, leading the firm to high-risk status borrowing from the repo market. However, he was not as generous to those who did not agree with him eliminating anyone who was perceived as a threat. Tibman (2009) refers that any warnings from critics and managing directors who early realized that Lehman was headed for serious trouble fell into deaf ears.

2.4. Repo 105 Transaction

Financial institutions historically use repurchase agreement (repo) transactions to manage their short term needs for cash. Jeffers (2011) describes the procedure referring that in traditional repurchase transactions, the investment banking firm gives a counterparty highly liquid securities in exchange for cash. Thus, the first part of the transaction requires the company receive cash and transfer security inventory to the lender. The cash received by the company is normally repaid at a later date plus a small amount of interest to get the securities back. For companies such financing arrangements are accounted as loans with collateral.

If a company receives $50 million cash and transfers $52 million of securities as collateral, the journal entry would be as follows:

Debit: Cash $100M

Credit: Short-term Payable $100M

Respectively, on the balance sheet, the securities transferred as collateral continue to be included as assets, and footnote disclosure would show the total amount of securities being held by third parties as collateral (Dutta, et al., 2010). Similarly, when the short-term borrowing is repaid with interest (2%), the journal entry would be:

Debit: Short-term Payable $50M

Debit: Interest Expense $0.1M

Credit: Cash $50.1M

To maintain its reputation, Lehman employed creative but deceitful accounting practices known as Repo 105 to make its balance sheet appear to look healthier than they actually were. Jeffers (2011, p.46) defines that:

"Repo 105 is an aggressive and deceitful accounting off-balance sheet device which was used to temporarily remove securities and troubled liabilities from Lehman's balance sheet while reporting its quarterly financial results to the public".

Lehman used Repo 105 to enhance its balance sheet image by temporarily removing approximately $50 billion of assets from the balance sheet at the end of first half of 2008. In particular, Lehman took haircuts of 5% for fixed income securities and 8% for equity securities, hence the terminology Repo 105 and Repo 108. By taking this larger haircut, the aforementioned transactions were recorded as sales (!!) instead of loans. With this accounting treatment, the company avoided to record any liability when it would receive the cash. Thus, the journal entry, when recording the difference between the values of the securities transferred and the cash received as an option to repurchase on a specified date would be as follows:

Debit: Cash $50M

Debit: Repurchase $5M

Credit: Investment Securities $55M

By doing so, Lehman would achieve the ultimate goal, which was to show a more liquid financial position with less risky assets and less liabilities. Jeffers (2011) stated that the use of Repo 105 made the company seem both well capitalized and less leveraged, with enough good liquidity to meet its short-term obligations and with good profitability and asset utilization. With these altered economic situation, Lehman Brothers sought to receive more lending from financial institutions.

2.5. Low Ethical standards

Ethical decisions are considered as a unique effect to the business environment. Jeanette (2008) examined the ethical dilemma of financial accountants to manage earnings and focused on harmful actions (i.e. manipulating accounting figures), as well as on non-harmful ones. Such dilemmas should have faced in case of Lehman's financial statements.

It's well accepted that there are distinguished roles between the external auditors and the inside business finance department. The preparation of financial statements is the responsibility of company's employees, while the review and commentary are responsibility of the external auditors. Thus, in Lehman's case the external auditors were culpable for failing to detect or report the shortcomings in the financial reporting process, while the ultimate responsibility lies with Lehman's management for developing and using Repo 105 for the purpose of manipulating its balance sheet (Dutta, et al., 2010, pg.28)

Individual ethical decision-making process often gets influenced by moral intensity and the perceived importance of an ethical issue (Valentine & Hollingworth, 2012). In addition, the individual characteristics and business culture contribute towards the decision-making process. Lehman Brothers failed to act in an ethical manner as long as they complied with the rules of the existing financial management to manipulate their business equity, and not considering throughout the deeper meanings of their actions. Undoubtedly, the actions taken by certain employees were certainly unethical, as they followed the unethical code of ethics coming from the board of directors and senior management. These codes were intended on reporting favorable leverage ratios without apparent regard for the ethical implications.

The paradox in case of Lehman's failure is that according to a research made by Stevens and Buechler (2013), the ethical code of the company was fairly commonplace and no evidence was found showing the code functioned as a strategic document to help the organization remain viable. Thus, all the unethical actions which happened within Lehman were guided mostly by individual expectations rather by a formal company policy. In conclusion, it would be naive to claim that a different code could have saved Lehman Brothers but it would be fair to claim that different self-perceptions could minimize damage.

3. Could the failure of Lehman have been prevented?

3.1 Warning signals

3.1.1 Facts and issues

The International Financial Reporting Standards (IFRS) Interpretations Committee (2013) in its Conceptual framework for clarification about *IAS 1 Presentation of Financial Statements*, states that the financial statements are normally prepared on the assumption that an entity is a going concern and will continue in operation for the foreseeable future. The going concern opinion is one the major assumptions in accounting as it refers to the company's ability to continue functioning as a business entity, providing important investor information.

According to American Institute of Certified Public Accountants (2007), auditors are permitted to assume that a continuation of an entity is included in financial reporting in the absence of significant information to the contrary. Instead, when significant information exists which casts doubt about the entity's ability to continue as to the going concern for a reasonable period of time, the audit report should contain an explanatory paragraph presenting the auditor's conclusion using the phrase "substantial doubt about its ability to continue as a going concern" (AICPA, 2007).

3.1.2 What happened to LEH financial statements

Although Lehman Brothers' filed for Chapter 11 bankruptcy proceedings in 15th September 2008, there were signals within the previous year (2007) financial statements that provided information supporting a conclusion that bankruptcy was a foreseeable event. As Hurley R. and Hurley E. (2013) stated, there were leading liquidity indicators auditors should have questioned the validity of Lehman Brothers being a going concern. The same research also revealed that there were neither disclosures regarding going concern conclusions drawn nor qualified opinion by auditors presented related to the question of whether Lehman Brothers was a going concern. The Consolidated Statement of Cash Flow for Lehman, as shown in Table 1, highlights the sources of the cash for years ended November 30th of 2005, 2006, 2007.

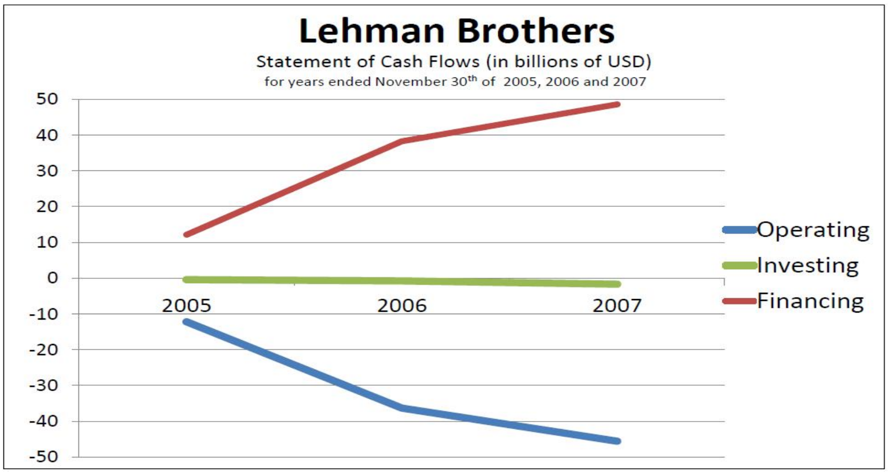

Table 1

Interpreting results for the year 2007, the net cash used in operating activities is ($45.595 billion); the net cash used in investing activities is ($1.698 billion), while the net cash provided by financing activities is $48.592 billion. Thus, there is an increase in cash of approximately $1.299 billion in relation to the year 2006. Given that cash was only 1% of total assets and that there was a progressive negative cash flow from 2005 and 2006, that increase in 2007 could not guarantee sustainability which is a key component for evaluating a going concern issue (Hurley R. and Hurley E., 2013). Indeed, the cash demands which occurred by the needs for their operational activities for the fiscal year 2007 led Lehman into borrowing in the billions. Borrowing means increase debt, and in Lehman's case the total debt (**see Appendix I**) at the end of fiscal year 2007 was $668.57 billion of which only $123.15 billion was designated long-term. Thus the risk as a going concern would rest on the Lehman's success in continuing to find willing lenders for their operational activity (Hurley R. and Hurley E., 2013).

Another factor to consider when reviewing financial statements of 2007 is the application of Z-score. The Z-Score bankruptcy prediction model developed by Dr. Edward Altman (1968) at NYU is a general prediction model. Hurley R. and Hurley E., (2013) analyzed the probability of Lehman bankruptcy and proved that even with the financial firm trying to hide the "bad" things from being on the books, the analysis of this study results in a Z-score revealing that bankruptcy was imminent for Lehman Brothers. To be more specific, the Z-score[1] for Lehman was 0.604 meaning that that the company was in financial distress and there was a high bankruptcy potential in the short term.

Another first sign of trouble for Lehman Brothers, 9 June 2008 was when they announced their significant quarterly loss. Johnson and Mamun (2012) presented Table 2 as an evidence, reporting that all four portfolios had statistically significant negative returns, with the primary dealer portfolio realizing the largest loss that day (3.5%) followed by the bank portfolio (3.4%).

[1] Altman's (1968) Z-Scores provides for three possible outcomes:(1) a Z-Score greater than 3.00 means the company is healthy and there is a low risk of a potential bankruptcy in the short term [usually defined as one year]; (2) a Z-Score between the values 1.80 and 2.99 means the company is exposed to some risk of bankruptcy and that caution is advised; and (3) a Z-Score less than 1.80 is interpreted as a company that is in financial distress and there is a high bankruptcy potential in the short term.

		Bank portfolio	Savings and loan portfolio	Primary dealers portfolio	Brokerage portfolio
Intercept		0.003**	0.003**	0.002	0.003**
		(2.486)	(2.547)	(1.632)	(2.156)
$\widetilde{Rm}_t$		1.412***	1.057***	1.646***	1.777***
		(37.256)	(34.897)	(41.383)	(48.211)
$\widetilde{I}_t$		−0.080**	−0.072**	−0.062	−0.069**
		(−2.228)	(−2.508)	(−1.636)	(−1.969)
$\widetilde{Ex}_t$		0.713***	0.713***	0.185	0.283**
		(5.627)	(7.043)	(1.395)	(2.297)
Event date	Parameter				
9 June 2008	θ_{1k}	−0.034**	−0.031**	−0.035**	−0.030*
		(−2.035)	(−2.323)	(−2.019)	(−1.818)
2 September 2008	θ_{2k}	0.030*	0.005	0.022	0.013
		(1.804)	(0.355)	(1.272)	(0.769)
9 September 2008	θ_{3k}	−0.006	−0.003	−0.004	−0.018
		(−0.330)	(−0.204)	(−0.248)	(−1.079)
10 September 2008	θ_{4k}	−0.024	−0.041***	−0.024***	−0.044***
		(−1.448)	(−3.077)	(−1.393)	(−2.703)
15 September 2008	θ_{5k}	−0.029*	−0.002	−0.060***	−0.006
		(−1.739)	(−0.133)	(−3.416)	(−0.397)
Adjusted R^2		0.652	0.622	0.701	0.757

Table 2

Furthermore, the 2005-2007 statements of cash flow of Lehman Brothers were reliable predictors of the coming bankruptcy. Morin and Maux (2011) mentioned the following signs of distress to be completely detectable in Lehman's financial statements:

1. Inability to create cash from the existing operating mechanism.

2. Systematic investment in working capital as well as in financial tools and instruments (!).

3. Long-term debt increase coming from the systematic use of external financing to offset operating deficits

4. Steady deterioration of cash flows over three years leading to the crisis.

3.1.3 What could have happened to prevent manipulation of LEH financial statements?

All these facts should create reliable proofs for altering the going concern assumptions. However, as Verschoor (2011) states, "these acts were alleged to have occurred during a seven-year period leading up to the Lehman bankruptcy". In fact, the certified auditors (Ernst & Young LLP) which made the accounting analysis should have made inquiries as to what the numbers actually meant or ascertain other explanations for the amount of short term debt being so high. Consequently, E. & Y. LLP accused by New York Attorney General Andrew Cuomo of helping to hide Lehman Brothers Holdings Inc.'s financial problems in order to create a false impression of Lehman's liquidity, thereby defrauding the investing public and violating New York law (Verschoor, 2011). Due to that unethical use of accounting standards, Lehman posted net positive results and growth between 2005 and 2007, generating a false financial profile and hiding these signs of distress.

3.2 Political apathy

3.2.1 Facts and issues

Formally, the US government remained a passive stance in case of Lehman's collapse. Informally, the political scene of US was justified in letting the Lehman Brothers fail despite the far-reaching economic impacts that eventually culminated into a financial crisis (Bris, 2010). Given the fact that the governments are the "managers" of the people's money, it was rather comprehensible the government to ask for public willingness so as to spend tax-payer money in the rescue of private companies. In similar circumstances of the past, as Bear Stearns and AIG, the US government attempted to develop an aid package, but the whole effort stuck by both the American public and Congress (Duffie, 2010). Therefore, the US government chose to do nothing about it although the repo market was well aware of the financial implication of the collapse of the aforementioned investment (Tebogo, 2012).

3.2.2 What political actions could have happened in case of LEH?

Future historians may blame the US government not because it did not rescue Lehman but because it acted too late. The main argument is that it should have forced the LEH to address the financial pressures that were simmering for over a year before the Lehman Brothers crisis, through legal and taxation pressures if necessary (McDowall, 2009). By doing so, the government would protect the financial stability of the national and global financial system. Instead, during the next months after bankruptcy the financial stability of banks and national banking systems suffered from a loss in investors' confidence. Consequently, national governments as well as central banks were obliged to react so as to stabilize the financial systems from crisis contagion. Soon, they had to require recapitalization of banks and to ask injection of liquidity into the banking system.

A political response in case of Lehman's collapse, happened inevitably a year after the bankruptcy. Governments from all over the world and central banks were decided to be inextricably bound together through state shareholdings in banking institutions (McDowall, 2009). Moreover, additional regulatory obligations were being placed in the industry through Basel III. If those actions had happened proactively in the beginning of the crisis in 2006/2007, then industries would not have been burdened with the current scale of government intrusion.

4. Recommendations for going forward

4.1 Facts and issues

As mentioned before, Lehman used specific financial instruments to manage its financial statements. However, the case of Lehman's collapse does not apply only in the financial services industry, but the events happened provide lessons about corporate governance that apply to all organizations. In addition, there should be many lessons from a failure, especially when the failure is the biggest of an institution in the US history (Azadinamin, 2013).

The lessons learned could be categorized into both macro and micro economy. From a macro perspective, it shows what devastating effect might have a too large and too interconnected institution to the rest of the financial system, while from a micro perspective, a lot of lessons which circle around the moral hazard issue are to be taught (Latifi, 2012). The following strategies might be useful in future if the failures of the financial systems are to be avoided.

4.2 Be proactive and follow rational business strategies

As mentioned before, in 2006 Lehman made a crucial decision in pursuing a higher-growth business strategy. Particularly, it struggled to gain a dominant position in the mortgage market, switching their business strategy from a low-risk brokerage model to capital-intensive banking model. Azadinamin (2013) refers that the two available options to pursue this high growth trend were to aggressively target a high growth rate in revenues, as well as to target an even faster growth in its balance sheet and total capital base. The fact that most of assets were long term and highly illiquid, in conjunction with the poor economic environment, induced even lower asset prices and led Lehman to a dead end. The company reached to the negative position to hold $700 billion in assets in 2007 on equity of $25 billion with $675 billion in liabilities (Caplan et al., 2010).

The obvious lesson learned according to these facts is that pursuing the company strategy at any cost is absolutely wrong. Instead of acting trivially, managers that lead industries should follow a most proactive and rational strategy. That means to timely abandon their high-growth strategy if its cost outweighs the benefits and is deemed as unfeasible at a specific time. Moreover, they should not get carried away to get money back while losing it by engaging in even more speculative investments (Latifi, 2012). As already mentioned Lehman shifted its strategy and entered into an unfamiliar and complex path in relation to its current operations. Therefore, it is considered to be very risky to put money in complicated investment which employees do not have, probably, similar experience.

Last, Lehman's management used to invoke the argument that the industry was too big to fail. All this time before the final collapse, they were considering that at the end they will find out a way to cope with. Past successes led them to believe that they could predict market properly. Unfortunately, their expectations did not come true and the market beat them.

4.3 Enforce regulatory measures

One of the main conclusions coming from the Lehman case study is the need for rigorous measures to ensure that investment banks will act according to their real financial capacity, instead of letting them deceive anyone in order to get funding. The last alarming incident of that phenomenon happened during the recent crisis where most investment firms entered the financial turmoil with obscene leverage ratios, insufficient capital bases, and inadequate liquidities buffers (McKibbin & Stoeckel, 2009).

Consequently, the regulatory measures should be directed at ensuring that investment banks have more realistic and manageable leverage ratios (Tebogo, 2012), that the firms would maintain minimum capital requirements according to Basel III and that ensuring that other instruments which count as regulatory capital will genuinely be available wherever that is demanded (Siskos, 2013). Generally, there is need for that kind of regulation which should provide solutions to subjects as capital, leverage and liquidity.

Many nations tried to combat the threat of future financial crises, as the United States and the European Union block. The United States Congress passed a financial regulatory bill, named the Dodd-Frank Wall Street Reform and Consumer Protection Act, which purpose was to limit large financial companies and prevent future bailouts and requires large financial firms to provide the so called "funeral plans" (Shachnurove, 2011).

The European Commission has already been adjusted to the new market requirements, publishing a UCITS[2] revision — called 'UCITS V' — which focuses on enhancing investor protection in the wake of the financial crisis, the Lehman bankruptcy and the Madoff fraud (Muller and Zanetti, 2012). The proposal aims to set up more detailed depositary rules, as for example that every UCITS fund is required to have a single depositary, with a written contract.

Moreover, banking regulation should also be focused on the risk factor, especially the systemic one coming from the banks that are too big to fail, whilst regulation of financial markets should be focused on international harmonization of banking rules (Gapko, 2012).

4.4 Restore investors' confidence

[2] The Undertakings for Collective Investment in Transferable Securities, Directive 2001/107/EC and 2001/108/EC (UCITS) are a set of European Union Directives that aim to allow collective investment schemes to operate freely throughout the EU on the basis of a single authorization from one member state. In practice many EU member nations have imposed additional regulatory requirements that have impeded free operation with the effect of protecting local asset managers.

Undoubtedly, the legal and regulatory framework that has been put in place since the dark days of September 2008 has managed to restore investor confidence in markets. The following milestones show the progress happened through these years (Blonay, 2013):

- The Dodd Frank Act in 2010 gave to the Federal Reserve tough new powers over US banks,
- Basel III rules forced global banks to adopt stricter capital and liquidity requirements and
- A political will in Europe implement cross-border oversight of the sector with the creation of the European Banking Authority in 2011.

Although such efforts is a positive step, they cannot ensure a satisfactorily end as long as the industries and the audit firms remain uninvolved. Businesses should be compelled to adhere to good corporate governance practice to restore investors' confidence (Mensah, 2012), while the audit companies should transform U.S. financial reporting by improving audit quality and strengthening corporate governance. Regarding Ernst & Young LLP, which was responsible for the opaque audit of Lehman, they released a report in July 11, 2012 (The Sarbanes-Oxley Act at 10) to enhance the reliability of financial reporting and to improve audit quality.

5. Conclusions

This research initially aimed to provide useful remarks on the reasons that drove Lehman Brothers into failure. The findings suggest that Lehman acted unethically by violating credibility standards in its use of Repo 105 transactions and violating the accounting requirements by manipulating the financial statements. Along with the aforementioned moral issues, Lehman was lacking by capable risk and asset management as well as by flexible structure and managerial skills.

Afterwards, the research oriented into presenting the warning signals of the collapse, which had been avoided by the management, the investors and all others stakeholders. Such event was the misrepresentation of the financial statements which conceal the actual profile of the company. As mentioned before, they posted net positive results and growth between 2005 and 2007, generating a false financial profile and hiding these signs of distress. All these happened under the political apathy from the US government and the Congress which however was partly justified because of the previous public denial to do so.

Last, the paper suggests some strategies for investors, financial institutions, governments and the managers to go forward. Firms should avoid unachievable business strategies by constructing monitory mechanisms so as to prevent hazardous situations. Moreover, central banks and governments should enforce regulatory measures to minimize the risk exposure. Business and audit managers should restore investors' confidence by striving to provide transparent financial statements and by acting ethically when reporting financial ratios.

However, are all these measures enough? As Kirke (2011) points out, it would be sheer hubris to believe that another collapse is impossible. However, the impact of a possible future failure could be much lower if some of these defensive mechanisms take place.

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Appendices

Appendix I

LEHMAN BROTHERS HOLDINGS INC.

Part of the Consolidated Statement of Financial Condition 2007-2006

	November 30,	
In millions, except share data	**2007**	**2006**
Liabilities and Stockholders' Equity		
Short-term borrowings and current portion of long-term borrowings (including $9,035 in 2007 and $6,064 in 2006 at fair value)	$28,066	$20,638
Financial instruments and other inventory positions sold but not yet purchased	149,617	125,960
Collateralized financings:		
Securities sold under agreements to repurchase	181,732	133,547
Securities loaned	53,307	23,982
Other secured borrowings (including $9,149 in 2007 and $0 in 2006 at fair value)	22,992	19,028
Payables:		
Brokers, dealers and clearing organizations	3,101	2,217
Customers	61,206	41,695
Accrued liabilities and other payables	16,039	14,697
Deposit liabilities at banks (including $15,986 in 2007 and $14,708 in 2006 at fair value)	29,363	21,412
Long-term borrowings (including $27,204 in 2007 and $11,025 in 2006 at fair value)	123,150	81,178
Total liabilities	668,573	484,354
Commitments and contingencies		
Stockholders' Equity		
Preferred stock	1,095	1,095
Common stock, $0.10 par value:		
Shares authorized: 1,200,000,000 in 2007 and 2006;		
Shares issued: 612,882,506 in 2007 and 609,832,302 in 2006;		
Shares outstanding: 531,887,419 in 2007 and 533,368,195 in 2006	61	61
Additional paid-in capital [(1)]	9,733	8,727
Accumulated other comprehensive loss, net of tax	(310)	(15)
Retained earnings	19,698	15,857
Other stockholders' equity, net	(2,263)	(1,712)
Common stock in treasury, at cost [(1)] (80,995,087 shares in 2007 and 76,464,107 shares in 2006)	(5,524)	(4,822)
Total common stockholders' equity	21,395	18,096
Total stockholders' equity	22,490	19,191
Total liabilities and stockholders' equity	$691,063	$503,545