Share-Based Compensation and the Financial Crisis

by

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ABSTRACT

The recent recession of 2007-2008, also called the Financial Crisis, presented an abnormal economic environment for the financial services industry. In this paper, I examine fluctuations in executive share-based compensation during the financial crisis and its following recovery. I found that the amount of share-based compensation as a percentage of total compensation had a peaked standard deviation in 2009, a year that marks the beginning of recovery. For example, in 2009 Goldman Sachs used 0% share-based compensation while Citibank used over 90% of executive compensation in the form of share-based compensation. This data suggests that firms use different behavioral and financial methods to counteract the effects of an economic downturn.

Introduction

The use of stock awards as a method of compensation has become a common practice of modern-day public corporations. As the United States economy develops, news media has paid substantial attention to the composition and volume of executive compensation. In February 2017, the *Wall Street Journal* identified problems in the share-based compensation offered to Bank of America executives during the financial crisis (Hoffman and McGinty 2017). Bank of America's stock price, a determinant of the value of an executive's stock awards, has been unable to recover from its significant decline since the financial crisis of 2007-2008, and thus the strike price of the stock awards from this period of time is above the current price, extinguishing the underlying value. Similar news stories, including a recent article also published in the *Wall Street Journal* covering the compensation structure of non-profit executives (Fuller 2017), has stimulated my interest in the use of stock awards during the financial crisis. I investigate the changes in share-based compensation in the financial services industry over a period of time in order to identify material year-over-year fluctuations in corporations' use of such forms of compensation. For the benefit of comparability, I used share-based compensation, known as stock awards, as a percentage of total compensation in order to eliminate variations in nominal compensation across individual firms. I chose to focus on financial services firms due to the volatile climate of the industry, primarily during the recent financial crisis, as well as the abundance of previous research in the literature.

I identified the financial crisis around 2007-2008 as an event that would affect all firms in the financial services industry. Comparisons in stock awards as a percentage of total compensation are made between years prior to the crisis, during the crisis, and after

the crisis during the recovery period. I believe that this event would have a substantial impact on a firm's ability and incentive to compensate employees with share-based compensation due to economic uncertainty within the market at this time.

The research, discussed further, emphasizes the behavioral and economic impact that the financial crisis has had on corporations. The primary data, as described previously, I analyzed the correlation between fluctuations in corporate stock value in order to evaluate compensation decisions on a firm-by-firm basis. Each analysis may contribute to explaining the decision-making process that firms undergo when making compensation decisions. Previous research has identified agency cost, peer monitoring and potential to merge as possible factors that influence decisions of share-based compensation methods. While progressing through this research, including the summarization of prior research done in the area, I believe that the use of stock awards would increase in times where firm value and liquidity decrease. During times of low cash flow, such as during economic distress, firms may still want to compensate executives in a manner that incentivizes superior performance in future years without sacrificing additional cash outflow. The use of stock options would lessen the cash outflow from compensation while simultaneous motivating the recipients to take action to increase the company's value, and thus its share price.

However, my analysis of eleven sample companies pinpointed greater variability, as measured by standard deviation, between firms' use of share-based compensation during the financial crisis and its initial recovery. Firms ranged from approximately 0% to 90% share-based compensation as a percentage of total compensation during this time. One firm with no use of share-based compensation in 2009 was Goldman Sachs, who

switched its compensation methodology away from stock awards towards deferred equity. In contrast, Citibank increased share-based compensation to over 90% of total compensation, a marked increase from prior years. Both Goldman Sachs and Citibank experienced the pernicious effects of the financial crisis, however, each took vastly different steps in motivating and compensating executives during this time frame. The financial crisis did not impact financial institutions' executive compensation structure in the same way for each firm. This correlation implies that firms, all struggling with the effects of the recession, attempted to offset downturns and incentivize employees using different methods.

Literature Review

Rosen and Bliss (2001) discussed the relationship between elements of financial institutions' CEO compensation and corporate mergers in "CEO Compensation and Bank Mergers". Their study not only discusses how mergers drive changes in compensation, but also how compensation drives decisions to engage in a merger. In regards to causes of changes in compensation, acquisitions typically increase every aspect of a CEO's compensation, even if the acquisition results in a decline in stock price. However, the study also found that if a banking corporation undergoes frequent mergers, the CEO typically has a smaller portion of stock-based compared to CEO's at other banks.

Abowd (1990) used data from 1981-1986 to discuss the correlation between managerial compensation and resulting corporate performance using accounting-based metrics. Abowd found that a 10% incremental increase in performance-based bonus correlated with a .30-.90% increase in after-tax economic return and a 4-12% increase in

total shareholder return in the following year. It is likely that the receiving managers hope to increase their bonus in the next year, thus making value-adding decisions in the following year in order to increase compensation over time.

Bryan et. Al (2000) study the use of both stock options and restricted stock in CEO compensation, looking at both Incentive-Intensity (the change in value of share-based compensation annually) and the Mix (ratio of stock-based compensation to cash compensation). The findings show that firms with a plethora of investment opportunities and firms with volatile earnings in relation to stock returns often have increased Incentive-Intensity and Mix in relation to stock options. Highly leveraged firms and firms with large amounts of shareholders typically have declines in each of these categories with respect to firms that are low-leveraged or with fewer shareholders when considering stock options. However, restricted stock shows varying trends. Unlike stock options, restricted stock Incentive-Intensity and Mix often decreases with an abundance of investment opportunities. Restricted stock may actually make CEO's more risk-averse, making stock options preferable to firms in a high-growth period.

Hannes (2007) discusses the role of employee compensation on peer monitoring. This research primarily focuses on how stock-based compensation is often used to motivate employees. It is commonly noted that employees work harder when they have ownership of the firm, and may potentially benefit from its success. While empirical data is noted to show that stock options granted to employees cause a company's value to increase, there is little correlation shown between the effort of an employee and the valuation of a company. The author of this research, however, has found that stock-based compensation instead motivates employees to care more about their peers' actions than

without stock-based compensation. While this research encompasses the effect that stock-based compensation has on the firm, it is important to take this into account when looking at the psychological motivators that a firm has when choosing to use share-based compensation. Given this information, it seems that employers may use stock-based compensation when they are trying to increase the value and work ethic of a company (the traditional motivational view) or the overall management style of employees (the findings). This may prove to lead to a firm's increased use of share-based compensation in economic downturns or periods of decreased profits/cash flows.

Share-based compensation is considered a form of performance-based compensation due to the impact firm performance has on its valuation. Banker et. Al (2000) analyze the impact of performance-based compensation implementation in the productivity of sales employees. Upon analyzing 3,776 sales employees, they found that the performance incentive allowed the firm to attract and retain high-performing individuals. Following the implementation, these individuals continued to work harder and improve performance and productivity, likely due to the monetary compensation that follows such an improvement. However, employees with low productivity prior to the implementation of performance-based compensation had declining productivity after the implementation, and many thus left the firm. While the high-performing employees followed the hypothesized trend of increasing productivity, the low-performing employees' decisions may be due to non-quantifiable reasons such as poor alignment to corporate values.

Brown and Lee (2007) emphasize how the enactment of SFAS 123R affect corporation's use of stock options as a form of compensation. SFAS 123R is a revised

codification released by the FASB in 2004. This revision requires a public entity to account for share-based compensation at fair-value on the grant date. The expense is to be recognized among the period in which the employee is providing the required service, however, no compensation expense is reported if the employees do not compete the required service. The fair-value of this compensation is to be re-measured at each reporting date until the date of settlement, with changes in fair value reported as compensation cost. This differs from the codification prior to revision by forcing companies to expense the stock options. Since this enactment, there has been a reduction in the proportion of total compensation paid in employee stock options. This is because share-based compensation does not have the same favorable accounting treatment as it did prior to the revision because it now must be expensed. Also, the concept fair-value and adjusting the expense to match fair value at every reporting period deters firms from using such a compensation method as the estimation of expense is less reliable. The research shows that after SFAS 123R, there has been an increased use of restricted stock rather than stock options as a form of compensation, however it did not replace equivalently the amount of stock options used previously.

Bennett, Guntay, and Unal (2015) examine how CEOs' compensation of inside debt to inside equity affected their performance. The findings concluded that those with a large amount of inside equity to the company often performed in a way that would benefit shareholders. However, those with larger portions of inside debt typically made better decisions during crises as their incentives aligned with those outside of the company who hold the company's debt. Also, as the amount of inside debt is added to the compensation, the CEOs actions that aligned with beliefs of the stakeholders diminished.

Conclusively, inside debt often correlates with lower risk taking and better performance of the receiving CEO in the banking industry.

Chen, Jeter, and Yang (2015) focused on changes in performance-related pay after the 2002 enactment of the Sarbanes-Oxley Act (SOX). The paper shows that the regulatory changes in 2001-2002 increased corporate sensitivity to performance-based compensation. There was an increased correlation between company performance and executive compensation after the implementation of SOX, likely due to increased reliability of the financial statements. As shareholder wealth increased, managerial compensation increased too, with a greater correlation that prior to SOX. Also, the research showed the SOX created more productive management and alignment to shareholder values, which may also be a reason for increased performance-based compensation. This study also uses a more comprehensive sample of corporations that previous studies.

Murphy (2003) investigates at how "new economy firms" (those that are smaller, grow rapidly, invest heavily in research, and have lower marginal tax rates) vary from "old economy firms" in their use of stock-based compensation. The introduction addresses prior research that identifies higher stock-based compensation in new economy firms, however, it was based largely on survey data, thus the author questions its validity. Murphy (2003), however, complemented this finding by looking at stock-based compensation in both old economy and new economy firms in 1992-2001. He identified that new economy firms have been quicker to reprice options, and given the new accounting standards, replacing existing options with new options as a form of repricing. New economy firms are also more likely to give executives multiple grants. Previously,

this difference in stock-based compensation use was explained with the agency, but the author believes that there is evidence to show its wide use due to its perceived cost (lack of cash outflow) is less than its economic cost. This aligns with my original conjecture that firms will use stock-based compensation in situations where they do not want an immediate outflow of cash. Although people often see stock-based pay as an incentivized plan, Murphy believes that the accounting considerations and the perceived cost play a bigger role.

Bhargava (2013) uses empirical data along with two individual databases to study the effects of stock options granted and exercised given a variety of expenditures and investments. The paper shows that overtime, executive salary doubled, but total compensation increased by four times, showing that much of this compensation is not related to a direct cash outflow. He also found a correlation between earnings and stock options. If a company had earnings that beat forecasts, they often used a greater amount of stock options as a form of executive compensation. The research also identified negative effects of share-based compensation. For example, after shares were repurchased, there was often a decrease in funding for research and development, which the author assumes is due to lower funds within the firm overall. This conclusion has lead the author to suggest that firms put a cap on the amount of stock options that a firm gives to their executives as compensation.

Although Festing and Sahakiants (2011) focus on the use of share-based compensation in European countries, the moral analysis remains relevant. This research relied primarily on analysis of firms' annual reports. Although this study is done on European countries such as the Czech Republic, Hungary, and Poland, much of the

psychological basis is presumably relatable to how American firms decide stock-based compensation. The author found that the regulatory environment had large effects on the use of share-based compensation, particularly when the government had partial ownership of the companies. Many of these companies had not yet introduced share-based compensation to their executives. While the regulatory environment in focus is state-owned operations, the financial industry is specifically called out for having a higher amount of share-based compensation structures, although more research must be done to confirm the correlation.

A popular belief regarding share-based compensation is its seemingly underlying incentive to misreport financial statement numbers in favor of the awards granted to the executive. Burns and Kedia (2006) studied this correlation between types of executive compensation and the motivation to misreport, finding that the incentive to misreport or adopt aggressive accounting techniques increases with stock options in particular due to the instrument's sensitivity to stock price. However, there was little correlation between this incentive and other compensation components such as restricted stock and deferred equity. This is an important consideration when analyzing the types of stock awards used by a firm's board of directors. For example, in times of crisis, a firm may choose compensation methods that are not stock options in order to lower chances of the firm misreporting future financial numbers.

Bebchuk and Fried (2003) identify two primary approaches to analyzing executive compensation. The first is the "optimal contracting approach" in which compensation amount and structure acts as an incentive device to maximize enterprise and shareholder value. This approach is considered a traditional approach from an

economic standpoint, and is one that is often taken by a company's board of directors. By using this approach, a firm's board of directors creates a compensation structure that they believe will incentivize executives to make value-creating decisions. Another less common approach is the "managerial power approach", which identifies executive compensation as part of a broader agency problem in which executives use their power These two approaches deliver an important concept in analysis of changes in share-based compensation over time- the intentions of the board of directors when awarding compensation may not induce favorable, expected actions by the receiving executive.

Research Methodology

The banking industry was selected as an industry to sample individual corporations due to my focus on the financial crisis period of approximately 2007-2008 when the financial services industry was impacted significantly by this economic downturn. Eleven companies from the banking industry were selected, including JP Morgan, Bank of America, Goldman Sachs, and Wells Fargo. The firms included in the analysis are large, national corporations due to the similarity in functionality and corporate volatility that eliminates many potential structural discrepancies. Only United States-based firms were included in analysis in order to eliminate potential cultural discrepancies that may affect a companies preference towards or away from the use of stock awards. The Securities and Exchange Commission (SEC) has a public database, EDGAR, for access to public companies' SEC filings. One of these filings is the Definitive Proxy Statement (DEF 14A), which contains information regarding the compensation decisions, primarily for c-suite officers. The definitive proxy statements for each year beginning in 2006 were

analyzed in order to gain an understanding for fluctuations in stock-based compensation. Share-based corporation was analyzed using the "Executive Compensation Summary Table" provided in this filing by each firm. Analysis was not completed for years prior to 2006 due to the enactment of SFAS 123R in 2005, which changed the recognition of share-based compensation and thus eliminates comparability between the two time frames. This table details the compensation structure of the top five to six executives. For my analysis, I used the sum of the stock awards amounts presented for each executive in a respective year divided by the sum of total compensation for each executive in this year. Total compensation includes stock awards, salary, bonus, and other compensation. An average of the percentage of stock award compensation was used among companies for each year in order to depict a fluctuation in compensation of a "typical" company. Standard deviation for each year is also calculated to analyze patterns in similarity and differences between the percentage of stock award compensation between the firms.

For each corporation, I analyzed fluctuations in usage of stock award compensation in correlation with the timeline for the most recent financial crisis. The financial crisis of 2008-2009 was carefully scrutinized in order to identify any fluctuations in share-based compensation that correlates with this time period in which the United States economy was experiencing a recession. This economic downturn notoriously affected all corporations due to the volatility of the stock market and increasing uncertainty of future recovery. I believe that each financial institution identified would react similarly to this event due to their exposures to the mortgage and interest rate tribulations during this time period.

Both an inter-company and intra-company comparison was used in order to investigate the impact of the financial crisis on the use of share-based compensation. Inter-company comparisons provide insight on overall trends within the industry during the economic crisis. An intra-company analysis was completed to gain an insight to behavioral incentives that a firm's board of directors takes into account when determining the compensation structure of executives in an unstable market.

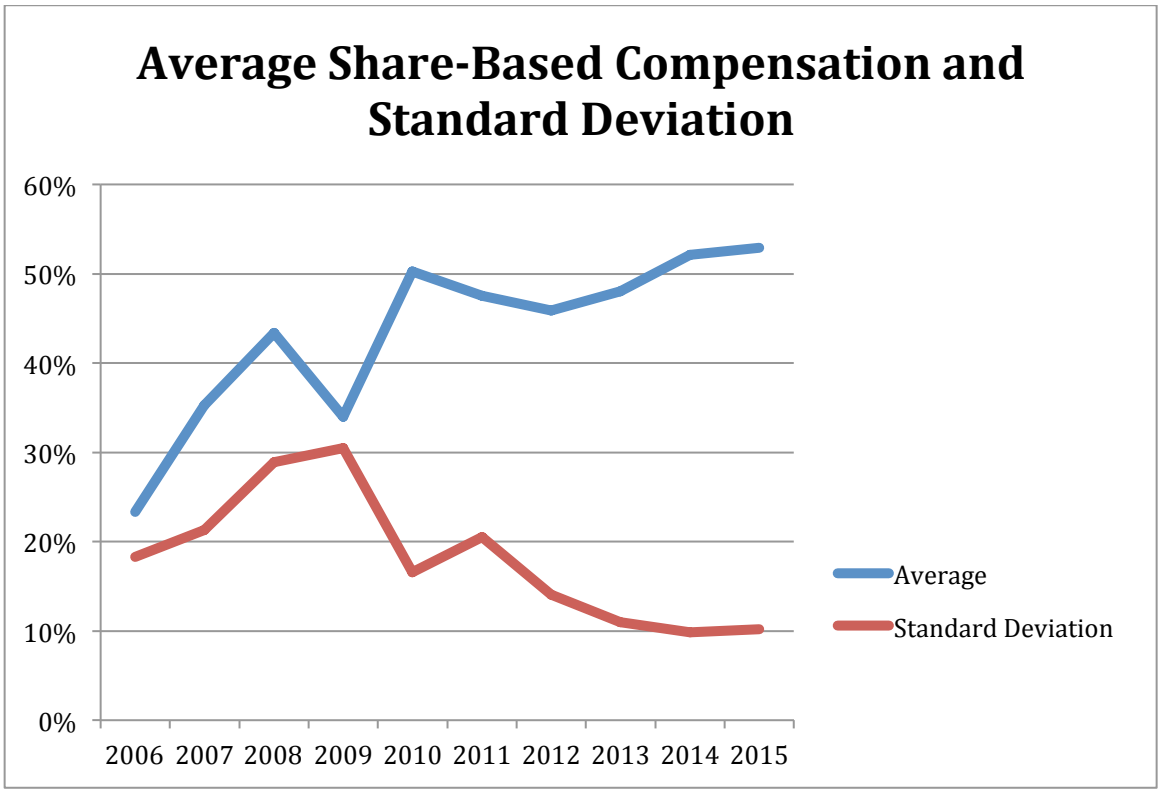
In order to identify similarities in compensation between firms, an average percentage of share-based compensation for all firms in the study was used for each given year. A standard deviation was also calculated in order to identify the spread or discrepancy between the firms' uses of share-based compensation in each year. In relation to the financial crisis, my analysis shows how firms varied away from the industry average while maneuvering the complex economic climate during this period.

Throughout the analysis, significant fluctuations in share-based compensation on both an average and firm level were identified and examined for potential reasoning. For example, in 2009, Goldman Sachs' use of share-based compensation dropped to 0% from 57.78% in 2008. Similarly, JP Morgan dropped to 13.58% this same year from 52.47% in 2008. Wells Fargo also went from miniscule amounts of share-based compensation in the years prior to the financial crisis to 46.33% of compensation in the form of stock awards in 2009, the year that is often identified as the end of the financial crisis. Annual reports, press releases, and the definitive proxy statement were analyzed in discussion of these discrepancies in order to identify both behavioral and financial reasoning behind these decisions.

Results

A primary metric used throughout my analysis was the average percentage of total share-based compensation used by the companies in the sample noted in Appendix A. This average has had an overall increasing trend from 2006-2015. However, the average had a notably sharp decline during in 2009, a year that typically marks the end of the financial crisis and the beginning of the economy's recovery. In 2008, the average share-based compensation of the sample companies was 43.43% of total compensation. This declined to 33.96% of total compensation in 2009, a 21.65% decline from its 2008 usage. 2009 was also an interesting year in share-based compensation due to the simultaneous increase in the standard deviation of the sample companies. This increase represents a larger spread or variation between the companies' usage, showing a movement away from an industry norm or pattern for compensation structure. After 2009, the standard deviation has declined, showing that since the economy's initial attempts at recovery, firms have begun to use share-based compensation in a more similar way within their executive compensation structures. Figure 1 graphically depicts the average percentage of share-based compensation (Appendix A), as well as the movement of standard deviation over the 2006-2015 period.

Figure 1:

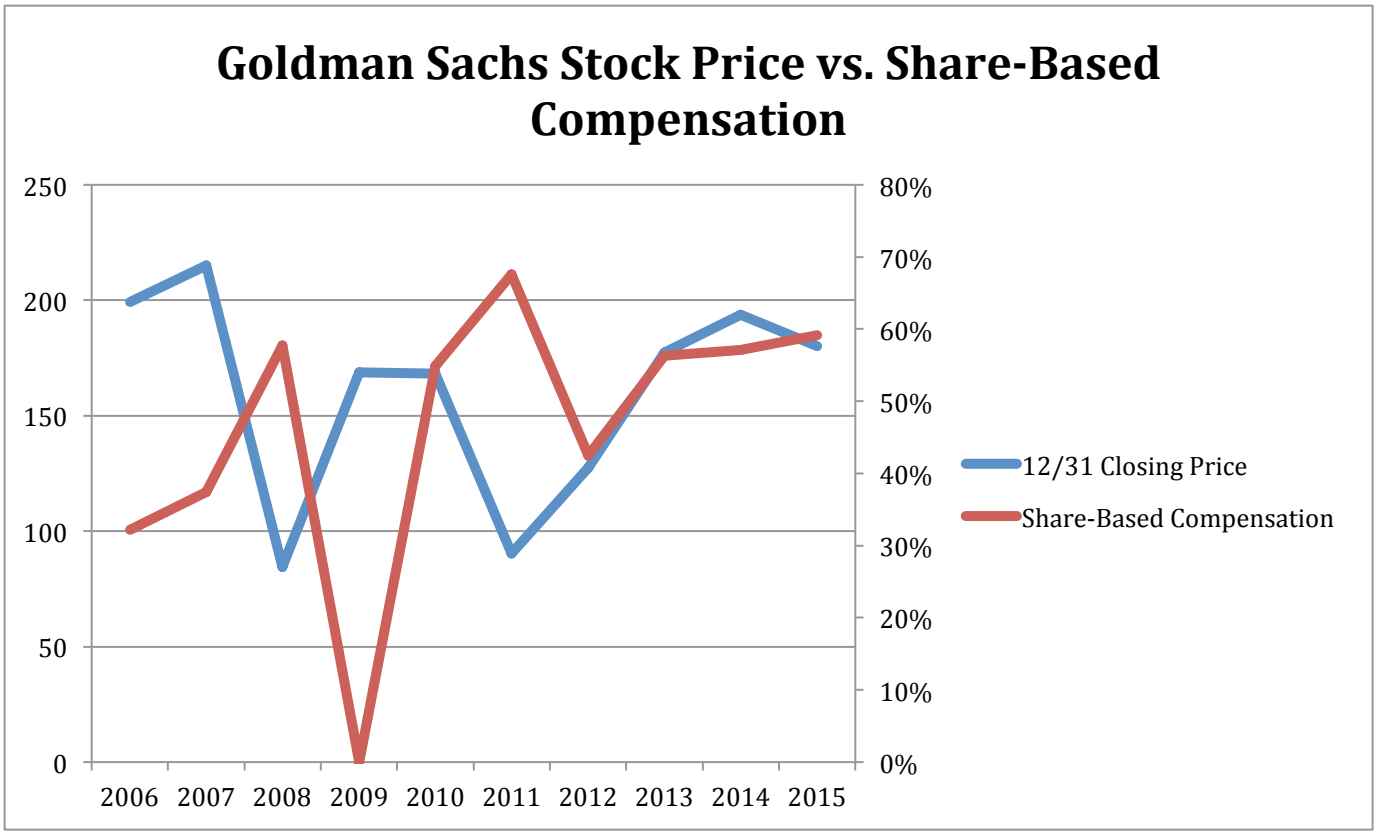


Discussion

This sharp movement in 2009 encompasses a variety of abnormal uses of stock award compensation within individual companies. Goldman Sachs used no stock awards for their 2009 executive compensation, varying greatly from their typical executive compensation structure that is predominantly made up of stock awards (greater than 50%). An analysis of the firm's Definitive Proxy Statement's Compensation Discussion and Analysis for this fiscal year shows that the company's board of directors elected to compensate executives in deferred equity rather than stock awards. Deferred equity differs from stock awards in its valuation upon conversion. Rather than being granted common stock at a specified strike price, as typical to stock awards, deferred equity grants a separate financial instrument (i.e. preferred stock) that may be traded in for

common stock. Compensation structure has been noted to be a stronger incentive to top managers to make value-adding decisions than the total amount of compensation (Mehran 1995). The use of deferred equity by Goldman Sachs may be due largely to the company's hope to recover after the financial crisis, thus incentivizing executive behavior that is favorable to the company's stock price relative to its competitors, but also favorable in relation to a financial instrument whose value is less volatile.

Figure 2:

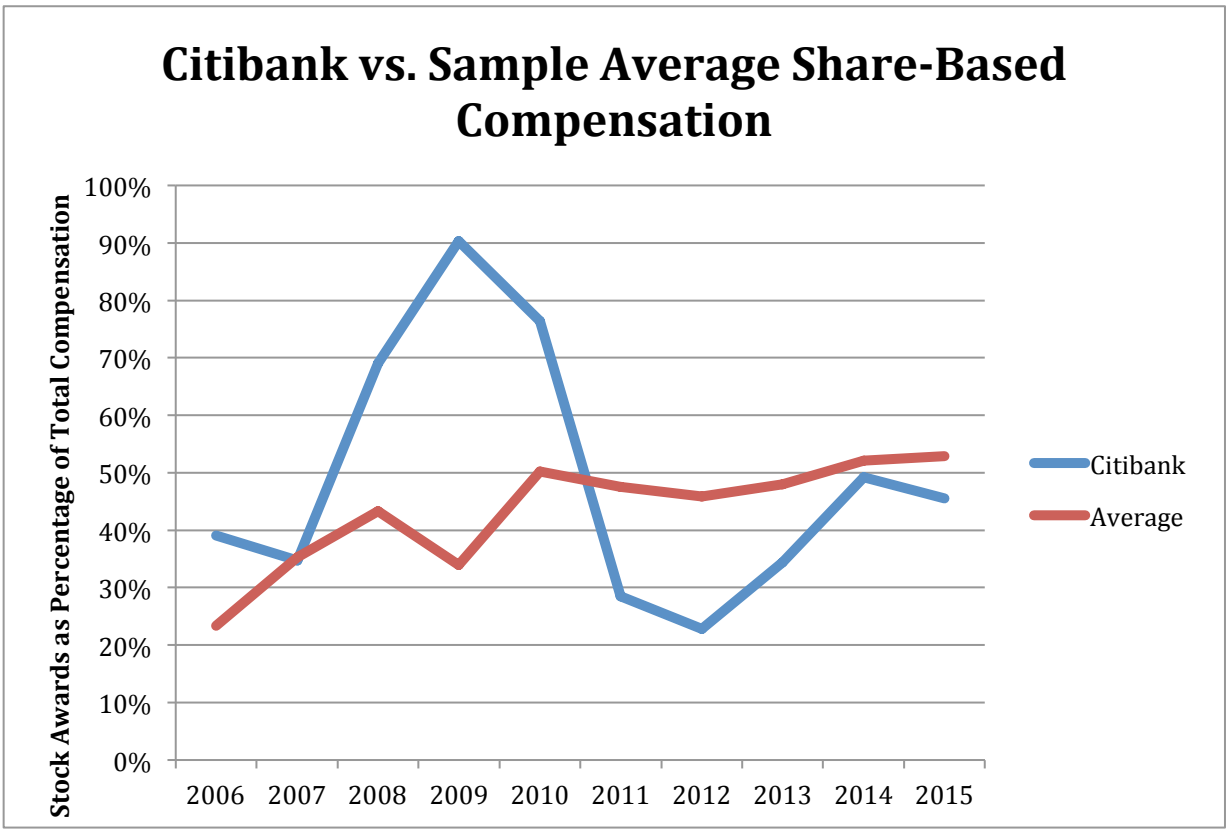


Simultaneously in 2009, Citigroup had an all-time high use of stock awards for executive compensation, sitting at 90.32% of total executive compensation. Upon analysis, it seems as though Citigroup's decision was largely influenced by the significant

decline in their stock price during the fiscal year. On March 5th 2009, Citi's nominal stock price (not adjusted for stock splits) hit an all time low of $0.97 per share, down significantly since it reported a $28 billion loss in 2008. An increased use of share-based compensation following a high-profile loss is consistent with the inherent belief that rewarding executives with stock awards will increase their likelihood of making value-increasing decisions, despite research showing that they may respond differently (Sanders 2001). Although Citi has been able to enter into a steady recovery since the financial crisis, it has not been able to return to its pre-recession success. This is not uncommon, however, the *Wall Street Journal* recently reported similarly of Bank of America. One study discussing behavioral correlations of financial institutions and the financial crisis identifies cognitive dissonance between pay structure and risk as a reason for the collapse of many firms' market value (Barberis 2013). This link suggests that many executives and active traders within such institutions are incentivized primarily in the short-term, through additional compensation for items such as satisfactory deal structures, rather than long-term performance. Barberis (2013) suggests that this created a dissonance between risk and consequences of employees during the financial crisis. Although compensation structures have changed slightly, with stock awards as a form of compensation now averaging over 50% of an executive's compensation compared to approximately 35% in 2007, little has been done to close this cognitive gap. Academic scholars mentioned previously have stated the risk of stock awards in a firm's compensation structure due to the adverse actions of the recipient in relation to what is expected of them. Rather than making value-adding decisions, these executives may often do the opposite in either fear of risking performance, and thus their compensation value, in the short-run or by making

high-risk decisions in hopes of being profitable in the short-run that may be detrimental to the firm's long-term performance.

Figure 3:



Implications

The array of share-based compensation usage during the financial crisis implies that firms may be weary to match compensation offered by competitors during times of economic downturn. Many firms often analyze their competitors in order to match market actions and maintain top employees. However, during times of recession, firms appear to offset effects of such a crisis using methods with differing behavioral incentives. Therefore, the

objective of one firm may not be the objective of another. While all firms during the crisis experienced economic hardship, such as decreased cash holdings, the resulting actions of each firm differed greatly. Prior research has also shown that bankruptcy or failure of a firm may raise the value of its competitors in the market (Lang and Stalz 1992). In conjunction with the great variation in compensation methodologies during the financial crisis, one may conclude that the inverse relationship between firms' successes may show that long-term goals, and thus appropriate incentives, may vary based off of historical performance. For example, Citibank increased executive stock awards to 90% of total compensation in 2009 in correlation to its stock price plummeting to record lows in the same year. However, if Goldman Sachs, a firm whose stock price began to recover from the recession in this year, were to use the same methodology, its effects on corporate morale and financial position may be vastly different due to financial standing and the structure of corporate governance that allows executives to make impacting decisions (Core, Holthausen, Larcker 1999). Therefore, this implies that prior to making compensatory decisions based off of competitive metrics, a firm must determine the similarity between the firms' financial standings, corporate structure, and behavioral goals.

Conclusion

While the discussion of executive compensation often focuses on the nominal total amount of compensation rewarded in a given year, it is apparent that the compensation structure is of vital importance and may be a great determinant of an executive's overall value. The failure of Bank of America's CEO to exercise stock options granted to him

prior to the financial crisis shows that stock awards may be a great profit or loss to its recipient. The financial crisis created an economic environment filled with uncertainty. As firms tried to counteract the downward spiral caused by the financial crisis and incentivize CEO's to act in the best interest of the company, individual firms began using compensation structures vastly different from their competitors. However, as the US economy continues to expand, there is a notable pattern and similarity among compensation in financial institutions in current years. Future analysis may be conducted on behavioral methodologies behind the companies' deviation from a standard norm used by competitors during times of crisis.

Appendix A

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bank of America	38.53%	25.71%	34.34%	85.43%	60.42%	63.63%	54.09%	58.11%	62.70%	58.98%
JP Morgan	38.67%	51.55%	52.47%	13.58%	50.16%	47.55%	50.97%	49.77%	58.11%	56.71%
Goldman Sachs	32.17%	37.38%	57.78%	0.00%	54.90%	67.55%	42.51%	56.34%	57.15%	59.14%
Citigroup	39.12%	34.71%	69.05%	90.32%	76.37%	28.51%	22.82%	34.42%	49.24%	45.52%
Jefferies	49.77%	84.10%	80.51%	12.41%	17.25%	1.28%	N/A	N/A	N/A	N/A
Lazard	15.67%	37.10%	89.61%	22.81%	38.14%	63.53%	55.95%	52.35%	52.13%	56.42%
Evercore	0.03%	38.95%	22.70%	34.52%	54.70%	60.63%	42.33%	47.79%	40.35%	42.98%
Wells Fargo	0.27%	0.04%	0.00%	46.33%	56.62%	54.41%	58.31%	62.82%	64.39%	69.72%
Morgan Stanley	N/A	37.85%	9.75%	0.00%	56.14%	48.54%	57.95%	34.63%	49.52%	49.55%
BlackRock	9.71%	26.54%	32.87%	35.14%	60.23%	60.01%	53.61%	52.95%	55.38%	56.27%
Associated Bank	9.32%	14.07%	27.72%	33.00%	27.56%	27.15%	20.13%	31.11%	32.53%	33.70%

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Average	23%	35%	43.34%	33.96%	50%	48%	46%	48%	52%	53%
Standard Deviation	18%	21%	29%	30%	17%	21%	14%	11%	10%	10%

Bibliography

Abowd, J. M. (1990). Does performance-based managerial compensation affect corporate performance?. *ILR Review*, *43*(3), 52-S.

Arye Bebchuk, L., & Fried, J. M. (2003). Executive compensation as an agency problem. *The Journal of Economic Perspectives*, *17*(3), 71-92.

Banker, Rajiv D., et al. "An empirical analysis of continuing improvements following the implementation of a performance-based compensation plan." *Journal of Accounting and Economics* 30.3 (2000): 315-350.

Barberis, N. (2013). Psychology and the Financial Crisis of 2007-2008. In Financial Innovation: Too Much or Too Little? (pp. 15-28). Cambridge, MA: MIT Press.

Bennett, R. L., Güntay, L., & Unal, H. (2015). Inside debt, bank default risk, and performance during the crisis. *Journal of Financial Intermediation*, *24*(4), 487-513.

Bhargava, A. (2013). Executive compensation, share repurchases and investment expenditures: econometric evidence from US firms. *Review of Quantitative Finance and Accounting*, *40*(3), 403-422.

Bliss, R. T., & Rosen, R. J. (2001). CEO compensation and bank mergers.*Journal of Financial Economics*, *61*(1), 107-138.

Brown, L. D., & Lee, Y. J. (2007). The impact of SFAS 123R on changes in option-based compensation. *Available at SSRN 930818*.

Bryan, S., Hwang, L., & Lilien, S. (2000). CEO Stock‐Based Compensation: An Empirical Analysis of Incentive‐Intensity, Relative Mix, and Economic Determinants. *The Journal of Business, 73*(4), 661-693. doi:1. Retrieved from http://www.jstor.org/

Burns, N., & Kedia, S. (2006). The impact of performance-based compensation on misreporting. *Journal of financial economics*, *79*(1), 35-67.

Chen, H., Jeter, D., & Yang, Y. W. (2015). Pay-performance sensitivity before and after SOX. *Journal of Accounting and Public Policy*, *34*(1), 52-73.

Core, J., Holthausen, R., and Larcker, D. "Corporate governance, chief executive officer compensation, and firm performance." *Journal of financial economics* 51.3 (1999): 371-406.

Festing, M., & Sahakiants, I. (2011). Determinants of share-based compensation plans in Central and Eastern European public companies: An institutional analysis. *Journal for East European Management Studies*, 338-357.

Fuller, A. (2017, March 6). Charity Officials Are Increasingly Receiving Million-Dollar Paydays. The Wall Street Journal. Retrieved March 6, 2017, from www.wsj.com

Hannes, S. (2007). Reverse Monitoring: On the Hidden Role of Employee Stock-Based Compensation. *Michigan Law Review*, 1421-1451.

Hoffman, L., & McGinty, T. (2017, February 15). Bank of America Misses a Big Options Payday, Goldman Cashes In. The Wall Street Journal. Retrieved March 1, 2017, from www.wsj.com

Lang, L. H., & Stulz, R. (1992). Contagion and competitive intra-industry effects of bankruptcy announcements: An empirical analysis. *Journal of financial economics*, *32*(1), 45-60.

Mehran, H. (1995). Executive compensation structure, ownership, and firm performance. *Journal of financial economics*, *38*(2), 163-184.

Murphy, Kevin J. "Stock-based pay in new economy firms." *Journal of Accounting and Economics* 34.1 (2003): 129-147.

Sanders, W. G. (2001). Behavioral responses of CEOs to stock ownership and stock option pay. *Academy of Management journal*, *44*(3), 477-492.