

Firms Responding to the Voice on CEO Compensation

Jae H Song
Saint Cloud State University

Changsoo Sohn
Saint Cloud State University

Susantha Herath
Saint Cloud State University

This study examines empirically the change of CEO compensation distribution of the companies in the Dow Jones Industrial Index in response to the public voice expressed in media during the period in 1992-2015. The compensations converge to the central location as the shape of distribution changes from the right-skewed toward a symmetric form with less extremely higher compensations and smaller differences in the CEO compensation amounts. The changes of CEO compensation distribution in response to the public voice indicate the identity as a viable long-term governance mechanism to lessen pay without performance problem.

INTRODUCTION

*"When the snows fall and the white winds blow, the lone wolf dies but the pack survives."
Sansa Stark, Game of Thrones Season 7 Episode 7*

The Chief Executive Officer (CEO) compensation of the public companies in the USA has been increased dramatically in the last few decades. According to an Economic Policy Institute Report (Mishel & Schieder, 2016), the average CEO compensation of top 350 US firms in 1978 was \$1.489 million, and in 2015 was \$15.502 million¹, which is 941% increase. The CEO-to-worker compensation ratio changed from 30 in 1978 to 276 in 2015². With the dramatic increase in CEO compensation in terms of the dollar as well as CEO-to-worker compensation ratio, the CEO compensation has become the most crucial issue in the US corporate governance.

A Securities and Exchange Commission (SEC) rule requires disclosure about compensation paid to CEOs, chief financial officers, and certain other high-ranking executive officers of public companies (Securities and Exchange Commission, 2006). The Summary Compensation Table (APPENDIX) in an annual proxy statement³ provides a comprehensive overview of company's compensation practices to the company's CEO, chief financial officer and three other most highly paid executive officers for the past three fiscal years. The Summary Compensation Table breaks down the total compensation into salary, bonus, stock awards, option awards, non-equity incentive plan compensation, changes in pension value

and non-qualified deferred compensation earnings, and all other compensation (Securities and Exchange Commission, 2006). The intention of SEC on the Summary Compensation Table is to show a clear picture of total compensation of top executives to the public.

Increasing CEO compensation with growing transparency in disclosure and the claim of the “pay without performance” (Bebchuk & Fried, 2004 & 2006), all seem to lead active public voice to the CEO compensation. The term “voice is defined as any attempt at all to change” CEO compensation (Hirschman, 1979). An SEC news release in 2006 on executive compensation says “With more than 20,000 comments ... no issue in the 72 years of Commission’s history has generated such interest.”

The purpose of this study is to investigate the influence of public voice expressed in media to the CEO compensation distribution of a set of companies. The characteristics of a CEO compensation distribution studied are the central location, variation, and shape of CEO compensation distribution. By investigating the distribution in terms of these characteristics, we would better understand the impact of voice on the CEO compensation and thus compensation decision-making mechanisms for the improved boards of directors’ functions.

To achieve the purpose, this study is designed based on the rule following perspective of decision-making (March, 1994), which proposes that individuals or companies with a unique identity in a situation follow a rule to make a decision. For the individuals with a unique identity, the board of directors of the companies in Dow Jones Industrial Average Index was chosen; public interest or voice expressed in media is used to describe a situation that the boards were in. The public voice as an attempt to change CEO compensation can take many different forms; publication in electronic or paper form, public speech, regulatory actions and shareholder movements etc. The number of publications on CEO compensation in the academic journals, magazines, and newspapers is used as a proxy to measure the voice in the study. Based on these designations of identity and situation, the influence of voice on the CEO compensation of companies in the Dow Jones Industrial Average Index is empirically investigated in the 1992-2015 period. A set of companies is treated as a unit of analysis whose CEO compensation distribution is investigated, it is a significant departure from the individual company based analysis (Bednar, 2012; Chen, et al., 2013).

By investigating the impact of voice on CEO compensation, the paper contributes to the improved corporate governance by the better understanding of the compensation adjustment mechanisms of the board of directors.

The next section presents research questions and the design of the investigation to analyze the impact of voice on CEO compensation distribution followed by sections on models and data, and the analysis of CEO compensation distribution and results. The final section addresses the implications of the results on corporate governance and presents conclusions on the contributions of this study.

RESEARCH QUESTIONS AND DESIGN OF STUDY

Bednar (2012) studied media coverage on organizational responses in terms of CEO dismissal, CEO compensation, and board composition. Specifically, on the issue of CEO compensation, he investigated the influences of both positive and negative media coverage on corporate governance and leadership to the subsequent change in CEO’s total compensation and the proportion of contingent compensation – stock options. The results of the study, which is based on a sample of 250 firms from the S&P 500 in 2001 for the period from 2001 to 2005, were mixed; the media coverage does not significantly influence the CEO’s total compensation but on a contingent component of the total CEO’s compensation of selected individual companies (Bednar, 2012). Other studies reported different results that a higher compensation with positive media coverage (Chen, Yi, & Lin, 2013; Nguyen, 2011).

Our study extends these studies to investigate the association between media report on CEO compensation and CEO compensation distribution of a group of companies. While, the prior studies (Bednar, 2012; Chen, Yi, & Lin, 2013) address the impact of media coverage on individual CEO compensation, our study addresses the media impacts to the shape and the variation of annual CEO compensation distribution as well as the central location, which was the focus of the prior studies. The

expansion is based on the assumption that CEO compensation is influenced by the CEO compensation of other companies. A group of companies is treated as a unit of analysis, and their CEO compensation distribution is investigated in our study, which is grounded on the rule following perspective based on the logic of appropriateness (March J. G., 1994; March & Olsen, 2011). It is a departure from an individual company based analysis.

The rule following perspective of decision making (March, 1994) is a view that decision makers with a certain identity in a specific situation make a decision by following rules. The rules are selected by answering a question such as “What does a person such as I or an organization such as this, do in a situation such as this?” (March, 1994). Actions or rules followed by the organization/individual are matched by the identity and situation the organization/individual is in. To structure the research based on the rule following perspective, companies that have been included in Dow Jones Industrial Average Index during the period in 1992-2015 are investigated.

The Merriam-Webster Dictionary defines the word situation as “all of the facts, conditions, and events that affect someone or something at a particular time and in a particular place.” The CEO compensation has been increased by 384% while workers compensation increased only 84% (Mishel & Sabadish, 2012; Mishel & Schieder, 2016). During the research period in 1992-2015, the media coverage on CEO compensation describes the situation; more specifically, it was a voice or an attempt to reduce CEO compensation. With the media coverage as a voice, the following hypotheses are proposed to investigate the rules that companies, more specifically the boards of directors, are followed in adjusting/the CEO compensation distribution variables of the companies in Dow Jones Industrial Average Index:

Hypothesis 1: The voice on CEO compensation is associated with the CEO compensation distribution such that the central tendency measured by average or median decreases as voice increases.

Hypothesis 2: The voice on CEO compensation is associated with the CEO compensation distribution such that the variation of CEO compensation of the companies decreases as voice increase.

Hypothesis 3: The voice on CEO compensation is associated with the CEO compensation distribution such that the shape of annual CEO compensation distribution of the companies changes as voice increases.

MODELS AND DATA

In the study, two models are proposed to investigate the above three hypotheses empirically. The Model 1 is to understand the relationship between CEO compensation variables and voice. The model 2 is an extension of Model 1 by introducing control variables.

$$c = \alpha_0 + \alpha_1 v + \alpha_2 v^2 + \varepsilon \quad (1)$$

$$c = \beta_0 + \beta_1 v + \beta_2 v^2 + \gamma_1 z_1 + \gamma_2 z_2 + \varepsilon \quad (2)$$

where, the response variable c is various measures of annual CEO compensation distribution of the selected companies, such as central tendency, variation or relative variation, and shape. The predictor variables are v for voice proxy at a year (t) or ($t-1$), and control variables are z_1 and z_2 . A curvilinear model with a quadratic term in voice is included to allow the changing slope between compensation and voice due to shifting trends in compensation⁴. The Model (2) reduces to the model (1) if both control variables are not significant.

To estimate these models, two sets of data are used: the compensation data of 15 companies in Dow Jones Industrial Average Index, and the number of articles published in the ABI/Inform indexes as a

proxy for voice. Among the 30 companies that were in Dow Jones Industrial Average Index in 1992, only 15 companies stayed in 2015⁵. For these 15 companies, their annual total compensation data from S&P's ExecuComp database are used. The ExecuComp database contains two total compensation measures: TDC1 and TDC2. The TDC1 is defined as the total compensation that includes salary, bonus, other annual compensation, restricted stock grants, long-term incentive payouts, the total value of stock options granted using Black-Scholes, and other compensation. TDC2 is total compensation that includes salary, bonus, other annual compensation, restricted stock grants, long-term incentive payouts, the value of stock options exercised, and other compensation. The difference between TDC1 and TDC2 is in valuing options. While the TDC1 includes the total value of the stock options granted, the TDC2 is based on the value of options exercised. The total CEO compensation based on options granted i.e. TDC1 is used in this study, which is more suitable for a company as the financier of a CEO compensation.

For the voice proxy data, the number of articles published in the publications included in the ABI/Inform indexes is used. The ABI/Inform indexes contain 3,200 trade publications and scholarly journals. All the articles that contain "CEO compensation" or "executive compensation" are counted and used as the proxy measure for the voice. Two control variables incorporated in the model 2 return on equity (ROE) for performance and total sales for size measure of a company. Both are obtained from S&P's Research Insight.

ANALYSIS AND RESULTS

The following six tables summarize regression estimates of the association between various CEO compensation distribution measures and voice. Table 1a and 1b are for Hypothesis 1, which are showing the results of regression estimates of the central tendency of CEO total compensation by voice at a year (t-1) or (t); Table 2a and 2b are for the Hypothesis 2, which are summarizing the results of variation and the relative variation of CEO total compensation of the fifteen Dow Jones Industrial Average Index companies; Table 3a and 3b are related to the shape measures of annual CEO total compensation distribution, which are related to the Hypothesis 3. These three hypotheses are supported with varying degrees of statistical significance. Namely, as the public voice is growing stronger, the central location of distribution in terms of average decreases, the various measures of variation of compensation distribution i.e., the compensation differences among CEO's are getting smaller, and the shape of distribution changes by the skewness shifting from the skewed right toward a symmetric shape.

The central location measures include average and median of the annual CEO compensation; both Table 1a and 1b show regression estimates of Model 1 and 2. The Table 1a is for voice at a year (t-1), and the Table 1b is for voice at a year (t). Note that Hypothesis 1 assumes an association of decreasing average or median as voice increases. To support the hypothesis requires that the regression coefficient of the quadratic term ($\text{Voice}(t-1)^2$ or $\text{Voice}(t)^2$) is significantly less than zero.⁶ Table 1a and 1b show that average compensation decreases as voice increases, but median compensation does not respond to voice when control variables are included. These results suggest that as the level of voice increases, extremely higher CEO compensations reduce toward median compensation resulting in a lower average compensation; this interpretation is consistent with the results on the shape in terms of skewness and kurtosis (Hypothesis 3), which will be presented later in this section.

TABLE 1A
REGRESSION ESTIMATES OF CENTRAL LOCATION BY VOICE AT A YEAR (t-1)

Response-CEO Compensation Variable(t)	Predictors		Control variables		F	R ² in %
	Voice(t-1)	Voice(t-1) ²	ROE(t) based	Sales(t) based		
Average	4.12**	-0.008*			4.81**	31
Average	-7.6 [#]	-0.006 [#]	454	0.26*	5.3***	53
Median	7.39 [^]	-0.004 [#]			19.8 [^]	65
Median	2.63	-0.003	488**	0.17*	18.6 [^]	80

* p<0.1, ** p<0.05, *** p<0.01,

[^] p<0.001 for H₁: Regression coefficient ≠ 0;

[#] p<0.1 for H₁: Regression coefficient < 0

TABLE 1B
REGRESSION ESTIMATES OF CENTRAL LOCATION BY VOICE AT A YEAR (t)

Response-CEO Compensation Variable(t)	Predictors		Control variables		F	R ² in %
	Voice(t)	Voice(t) ²	ROE(t) based	Sales(t) based		
Average	3.102	-0.12*			3.65**	26
Average	-8.12*	-0.073 [#]	355	0.266**	5.85***	55
Median	6.78	-0.0075*			11.32	58
Median	1.94	-0.003	508**	-0.19**	17.4 [^]	78

* p<0.1, ** p<0.05, *** p<0.01,

[^] p<0.001 for H₁: Regression coefficient ≠ 0;

[#] p<0.1 for H₁: Regression coefficient < 0

Table 2a and 2b are about the Hypothesis 2, which is the association of the variation of annual CEO compensation with a voice at a year (t-1) or at (t). The variables to measure the variation of CEO compensation include standard deviation, interquartile range (IQR)⁷ of annual CEO compensation, the coefficient of variation (CV) and percent ratio of IQR to the median. The hypothesis 2 that is an association of a decreasing variation variable with increasing voice, which is supported except standard deviation with control variables with a voice at a year (t-1) or (t), and CV with control variables and voice at a year (t-1)⁸. For those regression equations that are failed to support the hypothesis 2, their control variables are all not significant statistically. Eliminating these three regression equations by dropping the control variables, hypothesis 2 is supported by all regression equations in Table 2a and 2b. As the voice increases, the variation of CEO compensation increases.

TABLE 2A
REGRESSION ESTIMATES OF VARIATION BY VOICE AT A YEAR (t-1)

Response-CEO Compensation Variable(t)	Predictors		Control variables		F	R ² in %
	Voice(t-1)	Voice(t-1) ²	ROE(t) based	Sales(t) based		
Stand. Dev.	-5.76 [#]	-0.012 [#]			2.12	17
Stand. Dev.	-6.82	-0.013	-1.14	0.026	1.01	17
IQR	-0.129	-0.008*			1.78	15
IQR	-1.86	-0.094*	-498	-0.18	1.47	24
CV	-0.045***	-2.76e-5			6.15***	37
CV	-0.03	8.17e-6	-0.42	-0.66	3.34**	41
IQR/Median	-0.034 [^]	-3.9e-5*			9.17***	47
IQR/Median	-0.021**	-3.3e-5*	-0.68**	0.135	6.7***	58

* p<0.1, ** p<0.05, *** p<0.01,

[^] p<0.001 for H₁: Regression coefficient ≠ 0;

[#] p<0.1 for H₁: Regression coefficient < 0

TABLE 2B
REGRESSION ESTIMATES OF VARIATION BY VOICE AT A YEAR (t)

Response-CEO Compensation Variable(t)	Predictors		Control variables		F	R ² in %
	Voice(t)	Voice(t) ²	ROE(t) based	Sales(t) based		
Stand.. Dev.	-7.507*	-0.014 [#]			2.30	18
Stand. Dev.	-9.16	-0.011	-214	0.073	1.17	20
IQR	-0.912	-0.0085 [#]			0.97	18
IQR	-5.605	-0.012*	-560	0.29*	1.58	25
CV	-0.05***	-2.65e-5			6.72***	39
CV	-0.04**	-6.3e-6	0.32	-0.56	3.66**	42
IQR/Median	-0.038 [^]	-2.3e-5			8.23***	43
IQR/Median	-0.026*	-2.03e-5	-6.2*	-0.034	5.51***	53

* p<0.1, ** p<0.05, *** p<0.01,

[^] p<0.001 for H₁: Regression coefficient ≠ 0;

[#] p<0.1 for H₁: Regression coefficient < 0

Hypothesis 3 is about the association between the shape of annual CEO compensation distribution and voice at a year (t-1) or (t). From both Table 3a and 3b, control variables are all not significant statistically, eliminating these four regressions equations with control variables from consideration, hypothesis 3 is supported by all regression equations. The skewness and kurtosis⁹ of annual CEO compensation distribution decrease as voice increases. Table 4 shows the predicted values of skewness and kurtosis based on the regression equations of model 1. The predicted skewness changed from around 2 in the early 1990s to 0.6-0.9 in 2007-2015 indicating that the shape of annual CEO compensation distribution changed from a skewed-right to a more symmetric normal distribution like shape. Further, the predicted kurtosis changed from around 6 in the early 1990s to around 2 in the 2007-20016 period, which indicates the shape of distribution changed from a thicker tail with sharper peak toward a normal

distribution with less thick tails and less sharp peak shape. The changes in skewness and kurtosis are consistent with the changes in central location and variation and supporting each other.

TABLE 3A
REGRESSION ESTIMATES OF SHAPE BY VOICE AT A YEAR (t-1)

Response-CEO Compensation Variable(t)	Predictors		Control variables		F	R ² in %
	Voice(t-1)	Voice(t-1) ²	ROE(t) based	Sales(t) based		
Skewness	-0.0011***	-8.04e-7			6.33***	38
Skewness	-0.0007	-7.2e-7	0.045	0.041	4.28**	39
Kurtosis	-0.003**	-4.09e-6			2.99*	22
Kurtosis	-0.00015	-4.36e-6	0.24	-0.684	2.0	29

* p<0.1, ** p<0.05, *** p<0.01,

^ p<0.001 for H₁: Regression coefficient ≠ 0;

p<0.1 for H₁: Regression coefficient < 0

TABLE 3B
REGRESSION ESTIMATES OF SHAPE BY VOICE AT A YEAR (t)

Response-CEO Compensation Variable(t)	Predictors		Control variables		F	R ² in %
	Voice(t)	Voice(t) ²	ROE(t) based	Sales(t) based		
Skewness	-0.0012^	-1.78e-6**			12.03^	53
Skewness	-0.0095**	-0.2e-5**	0.106	-0.582	6.32***	57
Kurtosis	-0.004**	-5.08e-6			3.5**	25
Kurtosis	-0.008	-6.3e-6#	0.157	-0.649	2.32*	33

* p<0.1, ** p<0.05, *** p<0.01,

^ p<0.001 for H₁: Regression coefficient ≠ 0;

p<0.1 for H₁: Regression coefficient < 0

TABLE 4
PREDICTED VALUES OF SKEWNESS AND KURTOSIS

Year	Average predicted value during each period	
	Skewness	Kurtosis
1992-1996	2.001	6.091
1997-2001	2.115	5.847
2002-2006	1.456	3.315
2007-2011	0.635	1.761
2012-2015	0.942	2.311

About the two control variables, the return on equity (ROE) to measure performance and sales volume to measure the size of the company. The results show that they are not significant to shape variables, and mixed to variation variables. For the central location variables, sales volume as a measure

of company size is significant but ROE is mixed indicating sales (size) is a better predictor than a short-term performance measure ROE.

In summary, the results of analysis of the CEO compensation distribution show that the voice expressed in media influences the distribution. The central location of distribution in terms of average moves down but in terms of the median with a mixed result. The variation of distribution in various measures is getting smaller. The compensation distribution is aligned that the compensation differences among CEO's are getting smaller as the public voice is growing stronger. The shape of distribution changes by the skewness shifting from the skewed right toward a symmetric shape and by the kurtosis changing from thick tails with a sharp peak to thin tails with a less sharp flat peak.

IMPLICATIONS AND CONCLUSIONS

For the 15 companies that are in Dow Jones Industrial Average Index from the early 1990s, our paper analyses the relationship of their annual CEO compensation distribution to public voice expressed in media. The annual CEO compensation distribution is described by central location, variation, and shape. The central location is measured by average or median of annual CEO compensation; variation is measured by standard deviation, IQR (interquartile range), the coefficient of variation, and percent ratio of IQR to median; the shape is measured by skewness and kurtosis. Results of the empirical analysis indicate that the annual CEO compensation distribution is influenced by the voice expressed in media. The central location of distribution shows a mixed result: the average moves down but the median does not as the voice increases. The variation of distribution in various measures is getting smaller. The compensation distribution is realigned that the compensation differences among CEO's are getting smaller as the public voice grows stronger. The shape of distribution changes by the skewness shifting from a skewed right toward a symmetric form, and the kurtosis changing from thick tails with a sharp peak to thin tails with a less sharp flat peak. In summary, the CEO compensation of the companies in Dow Jones Industrial Average Index (identity) is adjusted each other toward the central location with fewer extremely high compensations and a smaller variation (rule) as the voice expressed in public media increases (situation). These are different results from Bednar (2012) findings of no response to media coverage¹⁰ or with the symbolic responses suggested (Fiss & Zajac, 2004; Wesphal & Zajac, 1998, 2001).

These results indicate that the boards of directors benchmark their CEO compensation to other companies in the Dow Jones Industrial Average Index as if the CEO of the individual company deserves compensation around a level such as their median compensation. The boards of directors justify their CEO compensation and defend their compensation practice by collectively adjusting their CEO compensations. The board practice of benchmarking and converging their CEO compensations to each other is based on identity in the collectivistic orientation (Brickson, 2000, 2007). When the situation requires protection of compensation and justification of compensation arrangements, the board of directors determines the compensation/pay based on the identity of the company, i.e., identity is a determinant of CEO compensation. Bebchuk & Grinstein (2005) reported that one type of identity, the industry classification partially explains the change in executive compensation. We extend the industry classification of Bebchuk & Grinstein (2005) study to the general business identity in collectivistic orientation rather than individual or relational orientation (Brickson, 2000, 2007) as a determinant of executive compensation and emphasize the identity as a malleable nominal attribute of a group of companies. The implication of the identity as a determinant of compensation or pay based on identity is further discussed below.

Note the hypothesis that the boards of directors of U.S. public companies are weaker vis a vis their CEO's; a weaker board acts as an agent of the CEO by protecting the interests of both CEO and board of directors over the interests of the company. Bebchuk & Fried (2004, 2006) criticized the management pay arrangements of U.S. public companies and claimed that CEO's power over the board of directors as the key factor for the "pay without performance" problem. The identity as a governance mechanism i.e., pay based on identity provides a positive chain of incentives for the CEO and for his/her company.

Improved performance of a company can lead to a new favorable identity such as Dow Jones 30 or S&P 500 for the company with a higher overall CEO compensation, which in turn will improve the CEO compensation. Thus pay based on identity can improve “pay without performance” problem and lessen the agency problem of a weak board of directors. Pay based on identity can be a tool to support the various prescriptions that have been proposed in literature including such as improved board accountability (Bebchuk & Fried, 2006), and board right for long-term management (Subramanian, 2015).

Changing business identity needs to change the business model or business reputation. The business model is a system of business strategy, capabilities, and value that business is pursuing (Applegate, Austin, & Soule, 2009). As some components of the business model are more malleable than others, changing identity can be a feasible mechanism for corporate governance. Corporate governance is about the steering business model, and changing or improving business model is the central task of top executives. The board of directors needs to make sure that the improvement of business model is substantial, not superficial and symbolic. If the CEO compensation is not at the desirable level, changing rule has been the main remedy as witnessed in the introduction of stock options in the 1990s to the CEO compensation as an incentive for future performance. Changing rule requires a broad legitimacy or authority to support it. The changing identity of a firm is more practically feasible as it is less difficult than changing a rule, which is applied to an industry or economy. Although the identity in collectivistic orientation as a determinant of compensation may lead to a free rider problem for some companies. Identity can be a valid and feasible governance mechanism.

The contributions of this study are in both the findings on the impact of voice on CEO compensation and the implications of the findings on corporate governance. Note that our study is constructed based on the rule following view of decision-making (March, 1994), which proposes that decision-makers or organizations with a certain identity in a specific situation make a decision by following rules. Our study introduces an additional dimension i.e., identity to the views regarding executive compensation in addition to optimal contract and managerial power views (Sapp, 2008).

Companies showing a coordinated response and some significant pair-wise correlation coefficients between the CEO compensation of individual companies¹¹ indicate that the CEO compensation is interactively adjusted. The response implies that the method adopted in this paper namely a group of companies not a single company as a research unit of analysis helps to avoid the simultaneous estimation problem of the regression equation from the interactions among companies within a group. This method of consolidation of similar companies as a group and investigating the distributional variables of the group is useful for compensation related research questions, which is worth for further development. A set of companies is treated as a unit of analysis whose CEO compensation distribution is investigated, it is an innovation different from the individual company based analysis in business, although the analysis of income distribution is a very important topic in economics (Piketty, 2014). Finally, this study can be extended by investigating different sets of companies such as large hi-tech companies, large banks, large drug companies etc., and incorporating voice data with content.

ENDNOTES

1. The CEO annual compensation includes salary, bonus, restricted stock grants, options exercised, and long-term incentive payouts for CEOs at the top 350 US firms ranked by sales; the compensation is in 2015 dollars.
2. Based on the average of specific firm ratios.
3. The annual proxy statement is identified as DEF 14A in the SEC's EDGAR.
4. The CEO compensation or CEO-to-Worker pay ratio shows different patterns for the period before 2000 and after 2000. For an example, an article in Fortune (Lowenstein, 2017) reports CEO-to-Worker compensation ratios for 1979-2015. The ratio was 34 in 1980 and it continually increased to 376 in 2000 with two minor retractions in 1994 and 1999. After 2000, the ratios fluctuated between approximately 340 to 200. The quadratic terms in both model (1) and model (2) are added to address it.

5. The 15 companies are General Electric, Exxon Mobil, Procter & Gamble, E.I. du Pont de Nemours, United Technologies, 3M, IBM, Merck, American Express, McDonald's, Boeing, Coca-Cola, Caterpillar, JPMorgan Chase, and Walt Disney.
6. It means that H_1 : Regression coefficient $\neq 0$ with a negative value of estimate, or H_1 : Regression coefficient < 0 .
7. The interquartile range is the range of middle 50% of values when values are ordered from the lowest to the highest. It measures the variation of data.
8. These include the second regressions in Table 2a and 2b as well as the sixth in Table 2a.
9. Both Skewness and Kurtosis are calculated by Excel; both are defined as: Skewness characterizes the degree of asymmetry of a distribution around its mean. Positive skewness indicates a distribution with an asymmetric tail extending toward more positive values. Negative skewness indicates a distribution with an asymmetric tail extending toward more negative values; Kurtosis characterizes the relative peakedness or flatness of a distribution compared with a normal distribution. Positive kurtosis indicates a relatively peaked distribution. Negative kurtosis indicates a relatively flat distribution.
10. Bednar (2012) studied the influences of both positive and negative media coverage on corporate governance and leadership to the subsequent change in CEO's total compensation and the proportion of contingent compensation – stock options. This result shows that media coverage was unrelated to the total amount of CEO compensation but positive coverage was related to the decrease in the percentage of at-risk pay – stock options.
11. For the 15 companies studied, there are 105 pair-wise correlation coefficients, among them, 46 correlation coefficients are significant (meaning that not equal to zero) at a p-Value 0.1, 39 at a p-Value 0.05 and 23 at a p-Value 0.01.

REFERENCES

- Applegate, L. M., Austin, R. D., & Soule, D. L. (2009). *Corporate Information Strategy and Management* (8th ed.). Boston: McGraw-Hill/Irwin.
- Bebchuk, L. A., & Fried, J. M. (2004). *Pay without performance: The Unfilled Promise of Executive Compensation*. Cambridge, Massachusetts, USA: Harvard University Press.
- Bebchuk, L. A., & Fried, J. M. (2006, February). Pay without Performance: Overview of the Issue. *Academy of Management Perspectives*, 5-24.
- Bebchuk, L. A., & Grinstein, Y. (2005). The Growth of Executive Pay. *Oxford Review of Economic Policy*, 21(2), 283-303.
- Bednar, M. K. (2012). Watchdog or Lapdog? A Behavioral View of the Media as a Corporate Governance Mechanism. *Academy of Management Journal*, 131-150.
- Brickson, S. L. (2000). The Impact of Identity Orientation on Individual and Organizational Outcomes in Demographically Diverse Settings. *Academy of Management Review*, 25(1), 82-101.
- Brickson, S. L. (2007). Organizational Identity Orientation: The genesis of the role of the firm and distinct forms of social value. *Academy of Management Review*, 32(3), 864-888.
- Chen, C.-W., Yi, B., & Lin, J. B. (2013). Media coverage, board structure, and CEO compensation: Evidence from Taiwan. *Journal of Multinational Financial Management*, 23, 434-445.
- Forbes. (2012). *Two Decades of CEO Pay*. Retrieved April 2, 2017, from CEO Compensation: <https://www.forbes.com/lists/2012/12/ceo-compensation-12-historical-pay-chart.html>
- Hirschman, A. O. (1979). *Exit, Voice, and Loyalty: Response to Decline in Firms, Organizations, and States*. Harvard University Press.
- Lowenstein, R. (2017, May 01). Breaking the CEO Pay Cycle. *Fortune*, pp. 58-59.
- March, J. G. (1994). *A Primer on Decision Making: How Decisions Happen*. New York: The Free Press.
- March, J. G., & Olsen, J. P. (2011, 7 7). *The Logic of Appropriateness*. Retrieved 6 13, 2017, from Oxford Handbooks. Online: <http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199604456.001.0001/oxfordhb-9780199604456-e-024>
- Mishel, L., & Sabadish, N. (2012). *Methodology for measuring CEO compensation and the ratio of CEO-to-worker compensation*. Washington D. C.: Economic Policy Institute.

- Mishel, L., & Schieder, J. (2016). *Stock market headwinds meant less generous year for some CEOs*. Washington, DC: Economic Policy Institute.
- Piketty, T. (2014). *Capital in the Twenty-First Century*. (A. Goldhammer, Trans.) Cambridge, Massachusetts: The Belknap Press of Harvard University Press.
- Porter, M. E. (1996, November-December). What is Strategy? *Harvard Business Review*, 74(6), 61-78.
- Sapp, S. G. (2008). The Impact of Corporate Governance on Executive Compensation. *European Financial Management*, 14(4), 710-746.
- Schulz, M. (2014). *Logic of Consequence and Logic of Appropriateness*. Retrieved from http://www.martinshub.org/Download/LoC_LoA_PrePub.pdf
- Securities and Exchange Commission. (2006, September 8). Executive compensation and related person disclosure. 53157-53266. Federal Register.
- Securities and Exchange Commission. (2006, 7 26). *SEC Votes to Adopt Changes to Disclosure Requirements Concerning Executive Compensation and Related*. Retrieved from U.S. Securities and Exchange Commission: <https://www.sec.gov/news/press/2006/2006-123.htm>
- Subramanian, G. (2015, March). Corporate Governance 2.0. *Harvard Business Review*, 93(3), 96-105.

APPENDIX

SUMMARY COMPENSATION TABLE

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$)	Non-Equity Incentive Plan Compensation (\$)	Changes in Pension Value and Nonqualified Deferred Compensation Earning (\$)	All Other Compensation (\$)	Total (\$)
PEO ¹									
PFO ²									
A									
B									
C									

¹“PEO” refer to principal executive officer;

² “PFO” refer to principal financial officer