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What Drives CEO Pay in the U.S.?: An Empirical Study of Companies in the Consumer Staples Sector

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ABSTRACT

The objective of the study was to examine the relationships between CEO pay (and its individual components) and several financial and non-financial variables of the companies in the consumer staples sector. Our sample included 79 companies over the four year period of 2008-2011 which resulted in 306 years of data to examine through the regression analyses. The companies were strictly filtered on the type of industry they were in as the objective of the study was to look significant relationships within a relatively stable sector of the economy (Economic Sector 3000). Our findings suggest that the most influential factors of CEO pay are return on equity, total number of employees of the company, and size of the company in terms of total assets. The main unexpected finding was the minimal dependency of bonus/award components of pay on financial performance measures.

Key words: CEO compensation; consumer staples sector; CEO-to-worker pay ratios

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JEL: G3

1. Introduction

During the last three decades, the income disparity between top managers and average workers has been growing significantly for large companies in the U.S. The data available in the AFL-CIO website (www.aflcio.org) indeed shows that the CEO-to-worker pay ratios increased almost nine times from 42:1 in 1982 to 354:1 in 2012, as shown below:

1982	42:1
1992	201:1
2002	281:1
2012	354:1

Accordingly, corporate governance advocates and shareholder activists have long complained that chief executive office pay, which has jumped by a third since 2007, is sometimes way out of line with a top executive's on-the-job performance. (Bloomberg Businessweek, June 10-June 16, 2013, p. 27) It should be noted that the CEO-to-worker ratios from 1982 to 2002 were calculated by *Businessweek* as reported in Executive Excess 2005, Institute for Policy Studies and United for a Fair economy, August 30, 2005 (p.13). CEO-to-worker ratio for 2012 were calculated based on AFL-CIO analysis of average CEO pay at 327 available companies in the S&P 500 Index, and 2012 U.S. worker pay data calculated from the BLS current Employment Statistics Survey – Table B-2.

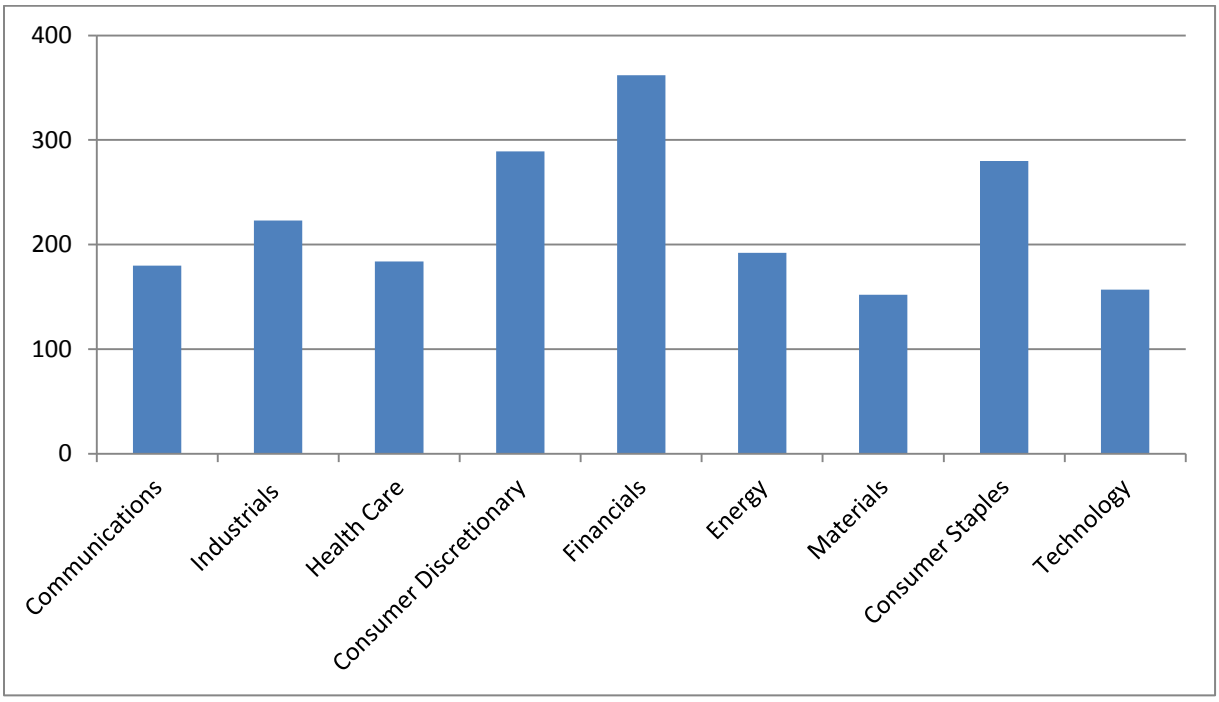
In order to explain the rapidly rising trend of top management compensation, many studies have previously explored what exactly the executive compensation is dependent on. Our study takes a unique sample and unique variables in researching the issue in that the scope of our study is on the compensation of the top executive of stable publicly traded companies; namely the Chief Executive Officer (CEO). The objective of the study was to examine whether or not a statistically significant relationship exists between the selected variables and CEO compensation in the consumer staples industry. The statistical tools implemented in our study examined many variables, both financial performance measures as well as non-financial characteristics of the company as a whole and the CEO as an individual.

This study is different from the previous studies in two regards. First, we are examining an industry that is relatively stable as compared to other industries. We are skeptical if there are any purely inelastic industries in the market, but we believe those that fall within Economic Sector 3000 "Consumer Staples" are more inelastic than most other sectors. The industries that fall within this sector are discussed and illustrated later on in the sample selection section. Considering John and Qian's (2003) conclusion that manufacturing industries were more prone to higher CEO pay-performance sensitivities, we selected this stable economic sector rather than financial institutions (as many of the previous studies had). Second, based on a wide range of the difference in the ratio of CEO compensations to average worker pay among the industries as shown in Table 1, it can be conjectured that the factors determining the ratio are different for different industries. Hence, we examine one of the three industries (i.e., consumer discretionary, financials, and consumer staples) which have a significantly high ratio comparing to those of other industries.

2. Related Literature Review

Existing literature on this topic provide mixed results given the different samples, industries, and types of variables examined. Bhatnagar and Trimm (2011) analyzed executive compensation of numerous NASDAQ companies along with various firm performance measures, such as return on assets, return on equity, and earnings per share. Their study inferred that only the base salary of executives has been significantly influenced by firm performance and that the value of an executive's stock option awards has not been significantly influenced by firm

Table 1
Ratio of CEO compensations to average worker pay



Note: Data of this chart were obtained from the May 6 – May 12, 2013 issued of *Bloomberg BusinessWeek*.

performance. An empirical study by Zhou et al. (2011) on financial enterprises in China resulted in much different implications. They selected both the average of the top three directors' compensation and the average of the top three managers' compensation, and their regression analysis revealed that a director's compensation was influenced by return on equity, but the compensation of an executive had no relationship with any selected performance measure. The difference in results could be due to many factors, such as cultural differences between U.S. and . China or types of performance measures selected for analysis.

Another analysis on the banking industry within the United States by John and Qian (2003) took a look at CEO pay-performance sensitivity using 1992-2000 data. Their findings were that total CEO pay increased by $4.70 per $1,000 increase in shareholder value. After learning that there was a pay increase related to an increase in shareholder value, John and Qian conducted further analysis to find that the components of total pay that were attributable to the increase were primarily stock and option compensation. John and Qian compared their results to a similar study conducted by Murphy (1999). Murphy analyzed the manufacturing industry in the

same fashion as John and Qian, and found a $6 increase in CEO pay as shareholder value increased by $1,000. Following the comparison, John and Qian concluded that pay-performance sensitivity in higher leveraged firms (e.g., commercial banks) was lower than the sensitivity in lower-leveraged firms (e.g., manufacturing companies).

3. Research Design

3.1. Sample Selection

Sample companies were identified in the ExecuComp database. We examined both financial and non-financial company specific characteristics that were available within the ExecuComp database, as well as the compensation of that company's CEO for the year. ExecuComp is a massive database with information on thousands of companies, so filtering data by applying constraints was essential. The data was first filtered on industry sector code; any industry within the 3000 economic sector was selected. Particular industries that were selected for examination were agricultural products, brewers, distillers & vintners, drug retail, household products, packaged foods & meats, personal products, soft drinks, and tobacco. Excluded industries within the economic sector were food distributors, food retail, and hypermarkets & supercenters. The reason for exclusion of the preceding industries was because of the wide range of available products at these types of stores, which generally are much more elastic than your basic foods. For example, it is not uncommon for a Giant Eagle or Kroger to sell apparel supporting the local university, gift cards to other retailers, or DVD's; and clearly a supercenter such as Wal-Mart sells much more than stable food products. Including these types of industries would dilute the stability we are seeking in this study. It can be noted that the meat, poultry, & fish industry was included in the query, but had no results given the other criteria constraints.

After applying all constraints, there were 79 distinct companies selected for examination. The goal of the sample selection was to find data for four consecutive years (2008, 2009, 2010, and 2011) for each of the 79 identified companies. Data was available for all 79 companies in 2008, 78 companies in 2009, 75 companies in 2010, and 74 companies in 2011. In aggregate, the 79 distinct companies resulted in 306 observations to plug into the regression models. Table 2 shows a breakdown of the companies examined by industry as well as a breakdown of the number of observations examined in the regression models by industry. It should be noted that the number of the firms in the package foods & meat industry is almost half of the total sample firms.

Table 2
Breakdown of companies and observations by industry

Industry	**Companies**	**Number of observations**
Agricultural Products	3	12
Brewers	2	8
Distillers & Vintners	3	12
Drug Retail	3	12
Household Products	9	36
Packaged Foods & Meats	35	137
Personal Products	10	37
Soft Drinks	8	28
Tobacco	6	24
Grand Total	**79**	**306**

3.2.Dependent and Independent Variables

The main dependent variable for this study was total compensation. In addition, various components of total CEO were also analyzed as dependent variables. They are salary, bonus, stock awards, option awards, non-equity incentives, and change in pension value. The individual components beyond the base salary were analyzed due to the fact that they make up such a large proportion of total pay. In our sample, base salary ranged from 0% to 100% of total pay, with the average being only 23% of total pay. Since the other components of pay beyond base salary, on average within my sample were about 77% of total pay, analysis of such components is justified.

As mentioned earlier, several pieces of data were extracted from ExecuComp for each company; some were financial performance measures while others were non-financial characteristics. The financial independent variables selected were total assets (TA), return on assets (ROA), return on equity (ROE), earnings per share excluding extraordinary items and discontinued operations (EPSEX), and earnings per share including extraordinary items and discontinued operations (EPSIN). The non-financial independent variables selected were gender of CEO (GENDER), age of CEO (AGE), total number of employees of company (EMPL), whether or not the CEO also served as a director (DIRECTOR), and the state that the company was headquartered in (STATE). Furthermore, ExecuComp provides data on each individual component of total CEO pay, such as salary, bonus, value of stock awards, value of option awards, value of non-equity incentives earned, change in pension value, and all other compensation. Stock price was purposely omitted in this analysis as there are numerous factors that determine stock price, making it a much noisier measure than pure accounting measures such as return on assets or return on equity (Bertrand and Mullainathan 2001).

When building the regression models, it became evident that several dummy variables were going to need to be put into place. Four dummy variables were necessary for the following characteristics; gender, whether the CEO also served as a director, state of headquarters, and total assets. As can be expected, CEO's of larger companies are much more likely to earn a higher amount of compensation than a similar company but of a smaller size. Accordingly, to control for size of the company, we used the amount of total assets as a dummy variable. The cutoff for size was the 75^{th} percentile of the samples' total assets. The 75^{th} percentile was approximately $10.8 billion; any company with assets exceeding the threshold were classified as first tier companies while any falling short of the threshold were classified as second tier companies. Of the 306 observations, 76 were classified as first tier companies such as more commonly known companies like Kellogs, Molson, and Kraft. The remaining 230 observations could be regarded as small and medium companies.

The other dummy variable needing clarification is the state of headquarters. 2011 real GDP data was obtained from Bureau of Economic Analysis (BEA) on the GDP breakdown by state. The U.S. real GDP for 2011 was roughly $13.1 trillion. Any state contributing at least $500 billion towards the total GDP was classified as a first tier state, while any falling short of the threshold was classified as a second tier state. The six states that met this criterion of at least $500 billion GDP contribution were, from greatest to least, California, Texas, New York, Florida, Illinois, and Pennsylvania. Of the sample of 306 observations, 138 had operations headquartered in a first tier state. An illustration of the first tier state portion of the sample is shown below in Table 3.

Table 3
Breakdown of first tier state companies

State	Observations
NY	40
IL	38
CA	28
TX	20
PA	12
Grand Total	**138**

As for the other two dummy variables implemented, approximately 92% of sample CEOs were male while only 8% female while roughly the same percentages applied to whether or not the CEO also served as a director as 93% did and 7% did not.

A summary of all variables, with definitions, is depicted in Table 4. Descriptive statistics such as the mean, median, minimum and maximum of the data gathered was explored to gain an understanding of the different variables employed and the different types of companies examined in the regression models. A summary of the descriptive statistics is also shown in Table 5

Table 4
List of the variables

Variable	Label	Definition
Dependent Variables		
CEO salary	Pay(SAL)	Value of base pay
CEO bonus	Pay(BONUS)	CEO bonus
CEO stock awards	Pay(STCK)	Value of stock awards
CEO option awards	Pay(OPT)	Value of option awards
CEO non-equity incentives	Pay(NONEQ)	Value of non-equity incentives
Change in CEO pension value	Pay(PENSCHG)	Value of net change in pension value
Total CEO compensation	Pay(TOTAL)	Total CEO pay
Financial Performance Variables		
ROA	ROA	Return on assets
ROE	ROE	Return on equity
EPSEX	EPSEX	Earnings per share excluding extraordinary items and discontinued operations
EPSIN	EPSIN	Earnings per share including extraordinary items and discontinued operations
Non-Financial Variables		
Gender (dummy)	GENDER	1 if male, 0 if female
Age	AGE	Age of CEO
Total # of employees	EMPL	Number of total company employees
Executive director (dummy)	DIRECTOR	1 if CEO does serve as director, 0 if not

State (dummy)	STATE	1 if headquartered in top six real GDP producing states, 0 if any other state
Control Variables		
Company Size (dummy)	SIZE	1 if total assets > 75th percentile of sample, 0 if not

Table 5
Descriptive statistics of selected variables

Financial Characteristic	**Mean**	**Median**	**Min**	**Max**	**Observations**
TA (millions)	11127.59	3675.03	51.04	143992.00	305
ROA	6.75	6.77	-41.39	38.22	305
ROE	38.77	15.18	-282.08	3751.53	289
EPSEX	1.94	2.09	-18.27	34.32	304
EPSIN	1.97	2.16	-18.29	31.44	304
Non-Financial Characteristics	**Mean**	**Median**	**Min**	**Max**	**Observations**
EMPL (thousands)	30.59	9.88	0.09	297.00	304
AGE (years)	55.49	55	30	91	306
Pay Component (thousands)	**Mean**	**Median**	**Min**	**Max**	**Observations**
Pay(SAL)	919.88	947.77	0.00	2198.46	306
Pay(BONUS)	203.94	0.00	0.00	10750.00	306
Pay(STCK)	2365.68	1393.05	0.00	25352.29	306
Pay(OPT)	1399.82	833.84	0.00	16232.86	306
Pay(NONEQ)	1508.73	1034.83	0.00	13015.88	306
Pay(PENSCHG)	915.96	71.84	-272.89	14197.82	306
Pay(OTHER)	462.57	141.72	0.00	14498.41	306
Pay(TOTAL)	7774.41	6332.20	425.70	43224.78	306

4. Hypotheses and Analytical Tools

Multiple regression analysis was used to analyze the relationship (if any) between the dependent variable (CEO compensation) and the various independent variables discussed above. The hypothesis was proposed:

The Null Hypothesis: the regression coefficients of AGE, EPSEX, EPSIN, ROE, ROA, EMPL, SIZE, GENDER, STATE, and DIRECTOR are equal to zero.

$H_0 = \beta_{AGE}, \beta_{EPSEX}, \beta_{EPSIN}, \beta_{ROE}, \beta_{ROA}, \beta_{EMPL}, \beta_{SIZE}, \beta_{GENDER}, \beta_{STATE}$ *and* $\beta_{DIRECTOR} = 0$

The Alternative Hypothesis: the regression coefficients of AGE, EPSEX, EPSIN, ROE, ROA, EMPL, SIZE, GENDER, STATE, and DIRECTOR are not equal to zero.

$H_1 = \beta_{AGE}, \beta_{EPSEX}, \beta_{EPSIN}, \beta_{ROE}, \beta_{ROA}, \beta_{EMPL}, \beta_{SIZE}, \beta_{GENDER}, \beta_{STATE}$ *and* $\beta_{DIRECTOR} \neq 0$

5. Regression Models

The regression model formulated to test the hypothesis is presented below:

$$Pay(TOTAL) = a + \beta_1(AGE) + \beta_2(EPSEX) + \beta_3(EPSIN) + \beta_4(ROE) + \beta_5(ROA) + \beta_6(EMPL) + \beta_7(SIZE) + \beta_8(GENDER) + \beta_9(STATE) + \beta_{10}(DIRECTOR) + \varepsilon_i \quad (1)$$

In addition, various components of total CEO pay (salary, bonus, stock awards, option awards, non-equity incentives, and change in pension value) were also analyzed as dependent variables, as depicted in the models below:

$$Pay(SAL) = a + \beta_1(AGE) + \beta_2(EPSEX) + \beta_3(EPSIN) + \beta_4(ROE) + \beta_5(ROA) + \beta_6(EMPL) + \beta_7(SIZE) + \beta_8(GENDER) + \beta_9(STATE) + \beta_{10}(DIRECTOR) + \varepsilon_i \quad (1.a)$$

$$Pay(BONUS) = a + \beta_1(AGE) + \beta_2(EPSEX) + \beta_3(EPSIN) + \beta_4(ROE) + \beta_5(ROA) + \beta_6(EMPL) + \beta_7(SIZE) + \beta_8(GENDER) + \beta_9(STATE) + \beta_{10}(DIRECTOR) + \varepsilon_i \quad (1.b)$$

$$Pay(STCK) = a + \beta_1(AGE) + \beta_2(EPSEX) + \beta_3(EPSIN) + \beta_4(ROE) + \beta_5(ROA) + \beta_6(EMPL) + \beta_7(SIZE) + \beta_8(GENDER) + \beta_9(STATE) + \beta_{10}(DIRECTOR) + \varepsilon_i \quad (1.c)$$

$$Pay(OPT) = a + \beta_1(AGE) + \beta_2(EPSEX) + \beta_3(EPSIN) + \beta_4(ROE) + \beta_5(ROA) + \beta_6(EMPL) + \beta_7(SIZE) + \beta_8(GENDER) + \beta_9(STATE) + \beta_{10}(DIRECTOR) + \varepsilon_i \quad (1.d)$$

$$Pay(NONEQ) = a + \beta_1(AGE) + \beta_2(EPSEX) + \beta_3(EPSIN) + \beta_4(ROE) + \beta_5(ROA) + \beta_6(EMPL) + \beta_7(SIZE) + \beta_8(GENDER) + \beta_9(STATE) + \beta_{10}(DIRECTOR) + \varepsilon_i \quad (1.e)$$

$$Pay(PENSCHG) = a + \beta_1(AGE) + \beta_2(EPSEX) + \beta_3(EPSIN) + \beta_4(ROE) + \beta_5(ROA) + \beta_6(EMPL) + \beta_7(SIZE) + \beta_8(GENDER) + \beta_9(STATE) + \beta_{10}(DIRECTOR) + \varepsilon_i \quad (1.f)$$

$$Pay(OTHER) = a + \beta_1(AGE) + \beta_2(EPSEX) + \beta_3(EPSIN) + \beta_4(ROE) + \beta_5(ROA) + \beta_6(EMPL) + \beta_7(SIZE) + \beta_8(GENDER) + \beta_9(STATE) + \beta_{10}(DIRECTOR) + \varepsilon_i \quad (1.g)$$

6. Empirical Results

6.1. Total Pay (Regression Model 1)

Table 6 presents the results of the regression analysis for the relationship between the selected variables and total CEO pay. It can be seen that several variables were significant determinants of total CEO pay. The total number of employees, size of the company, and ROA were positively associated with total pay, while the classification of male gender of the CEO was actually negatively associated with pay. These results are contrasting to those of Zhou et al. (2011) as they concluded that only *directors'* pay was influenced by ROE while *executives'* pay was not influenced by it.

6.2. Salary (Regression Model 1.a)

Table 7 presents the results of the regression analysis for the relationship between the selected variables and CEOs' base salary. Gender again had a negatively significant influence on base salary, while ROE, total number of employees, and size of the company all had a significant positive influence on salary. This agrees with the work done by Bhatnagar and Trimm (2011) in that ROE has an influence on base salary pay.

Table 6
Regression output for total pay using Pay(TOTAL) as dependent variable

Model		Standardized Coefficients Beta	t-value	Level of Significance
1	(Constant)		1.321	.188
	AGE	.046	1.051	.294
	EPSEX	-.334	-1.515	.131
	EPSIN	.335	1.512	.132
	ROE	.077	1.677	.095
	ROA	.149	2.586	.010
	EMPL	.231	4.238	.000
	SIZE	.413	7.415	.000
	GENDER	-.125	-2.617	.009
	STATE	.039	.856	.393
	DIRECTOR	.043	.963	.336

Table 7
Regression output for base salary using Pay(SAL) as dependent variable

Model	Standardized Coefficients Beta	t-value	Level of Significance
(Constant)		4.216	.000
AGE	.094	1.948	.052
EPSEX	-.296	-1.229	.220
EPSIN1	.335	1.383	.168
ROE	.124	2.484	.014
ROA	.054	.856	.393
EMPL	.233	3.920	.000
SIZE	.301	4.940	.000
GENDER	-.163	-3.118	.002
STATE	.042	.843	.400
DIRECTOR	.047	.983	.327

6.3. Bonus (Regression Model 1.b)

Table 8 presents the results of the regression analysis for the relationship between the selected variables and the CEOs' bonus. The age of executive officer was highly positively significant and had one of the highest beta coefficients in this entire study, implying that age was very meaningful in this sample. ROA was also positively significant, while whether or not a CEO also served as director actually had a negative impact on bonus pay. This also contrasts with Bhatnagar and Trimm (2011) as they concluded that *multiple* financial measures had influence on bonus pay, as only ROA (and not ROE) had an impact on bonus pay in my study. The difference here may explained by the difference in samples; their sample was on all NASDAQ financial institutions, while this research engagement only examined relatively stable companies within relatively stable industries.

Table 8

Regression output for bonus using Pay(BONUS) as dependent variable

Model		Standardized Coefficients Beta	t-value	Level of Significance
1	(Constant)		-1.941	.053
	AGE	.233	4.067	.000
	EPSEX	.056	.193	.847
	EPSIN	-.104	-.360	.719
	ROE	-.075	-1.257	.210
	ROA	.261	3.475	.001
	EMPL	.081	1.135	.258
	SIZE	-.008	-.106	.915
	GENDER	-.005	-.073	.942
	STATE	-.092	-1.537	.125
	DIRECTOR	-.129	-2.231	.027

6.4. Stock Awards (Regression Model 1.c)

Table 9 presents the results of the regression analysis for the relationship between the selected variables and the value of annual stock awards. The variables showing significance were the total number of employees and size of the company. All statistically significant variables had a positive association with the dependent variable.

Table 9
Regression output for stock awards using Pay(STCK) as dependent variable

Model		Standardized Coefficients Beta	t-value	Level of Significance
1	(Constant)		.928	.354
	AGE	-.004	-.083	.934
	EPSEX	-.418	-1.645	.101
	EPSIN	.410	1.607	.109
	ROE	.096	1.825	.069
	ROA	.042	.629	.530
	EMPL	.138	2.200	.029
	SIZE	.381	5.929	.000
	GENDER	-.078	-1.407	.161
	STATE	.086	1.621	.106
	DIRECTOR	.055	1.086	.279

6.5. Option Awards (Regression Model 1.d)

Table 10 presents the results of the regression analysis for the relationship between the selected variables and the value of annual option awards. ROA, total number of employees, and size of the company were all positively significant. Total number of employees and size of the company were highly significant and had large beta coefficients.

Table 10
Regression output for option awards using Pay(OPT) as dependent variable

Model		Standardized Coefficients Beta	t-value	Level of Significance
1	(Constant)		.897	.371
	AGE	-.004	-.072	.942
	EPSEX	-.491	-1.836	.067
	EPSIN	.451	1.678	.095
	ROE	-.073	-1.314	.190
	ROA	.188	2.689	.008
	EMPL	.293	4.427	.000
	SIZE	.154	2.271	.024
	GENDER	-.072	-1.246	.214
	STATE	.062	1.110	.268
	DIRECTOR	.032	.596	.552

6.6. Non-Equity Incentives (Regression Model 1.e)

Table 11 presents the results of the regression analysis for the relationship between the selected variables and the value of annual non-equity incentives. The results here were strikingly similar to the results of the regression analysis on total pay. All significant variables were ROE, size of the company, and gender of CEO (again negative if the CEO was male). One key difference between the regression results of total pay was that the age of the CEO had a negative impact on non-equity incentive pay. Perhaps this is an indication that companies are more likely to offer CEOs non-equity incentives earlier on in their career to entice them to stick with their company.

Table 11

Regression output for non-equity incentives using Pay(NONEQ) as dependent variable

Model		Standardized Coefficients Beta	t-value	Level of Significance
1	(Constant)		4.410	.000
	AGE	-.105	-2.016	.045
	EPSEX	.000	.000	1.000
	EPSIN	.122	.466	.642
	ROE	.224	4.142	.000
	ROA	.045	.665	.506
	EMPL	.115	1.789	.075
	SIZE	.167	2.528	.012
	GENDER	-.224	-3.941	.000
	STATE	-.006	-.112	.911
	DIRECTOR	-.039	-.740	.460

6.7. Change in Pension Value (Regression Model 1.f)

Table 12 presents the results of the regression analysis for the relationship between the selected variables and the annual change in the CEOs' pension value. Only the total number of employees and size of the company had a significantly positive impact on the change in pension value.

6.8. Other Compensation (Regression Model 1.g)

Other compensation, as defined by ExecuComp, is defined as all other compensation received by the executive, such as "other personal benefits", life insurance premiums, "gross-ups and other tax reimbursements", and discounted share purchases. Although all of these are considered "other" compensation, this is not an all-inclusive list of what constitutes as "other compensation. Table 13 presents the results of the regression analysis for the relationship between the selected variables and the value of annual "other" compensation for the CEO. Both age of executive and size of the company were highly positively significant to "other" pay.

Table 12
Regression output for change in pension value using Pay(PENSCHG) as dependent variable

Model		Standardized Coefficients Beta	t-value	Level of Significance
1	(Constant)		.243	.808
	AGE	.023	.452	.651
	EPSEX	-.019	-.071	.943
	EPSIN	.021	.079	.937
	ROE	-.004	-.076	.939
	ROA	.074	1.086	.279
	EMPL	.237	3.679	.000
	SIZE	.299	4.540	.000
	GENDER	-.081	-1.440	.151
	STATE	-.084	-1.539	.125
	DIRECTOR	.060	1.145	.253

Table 13
Regression output for "other" pay using Pay(OTHER) as dependent variable

Model		Standardized Coefficients Beta	t-value	Level of Significance
1	(Constant)		-3.138	.002
	AGE	.177	3.019	.003
	EPSEX	.024	.080	.936
	EPSIN	-.091	-.308	.758
	ROE	-.018	-.292	.770
	ROA	.048	.632	.528
	EMPL	-.137	-1.889	.060
	SIZE	.275	3.708	.000
	GENDER	.102	1.596	.112
	STATE	.077	1.255	.210
	DIRECTOR	.079	1.334	.183

6.9. Summary

Table 14 is a comprehensive summary of all regression models that were used in this research engagement. It is noted that ANOVA analysis of each regression model reveals that all models were significant, with varying levels of r-squared.

Table 14
A comprehensive regression analyses summary

Pay Component	Adjusted R-squared of Model	Significant Predictors
TOTAL	0.466	ROA, EMPL, SIZE, GENDER (-)
SALARY	0.362	ROE, EMPL, SIZE, GENDER (-)
BONUS	0.091	AGE, ROA, DIRECTOR (-)
STOCK AWARDS	0.292	EMPL, SIZE
OPTION AWARDS	0.214	ROA, EMPL, SIZE
NONEQUITY INCENTIVES	0.252	AGE (-),ROE, SIZE, GENDER (-)
CHANGE IN PENSION VALUE	0.256	EMPL, SIZE
OTHER	0.053	AGE, SIZE

7. Implications

When comparing these results to the results of Zhou et al. (2001), one key difference becomes clear. Although Zhou et al. (2011) did find a relationship between profitability measures and *directors'* pay, there was not a relationship between profitability measures and *executives'* pay. Perhaps this difference in finding is due to industry selection or cultural differences. When looking at U.S. banks on the NASDAQ, Bhatnagar and Trimm (2011) found several financial performance measures to have an impact on CEO pay. Our study is in congruence with theirs when looking at ROE, but our study shows no evidence of ROA or EPS of having an impact on pay as theirs does (Bhatnagar and Trimm 2011). These differences could be due to difference in volatility between the two industries (consumer staples vs. financial institutions). One surprising finding of this study was that neither EPS measure was a significant predictor variable on any pay component. This is surprising since so much emphasis is placed on stock prices and net income in the United States. As our findings differ from the aforementioned studies concerning financial institutions, it may be plausible to assume that industry plays a factor in how sensitive an executive's pay is to financial performance measures.

8. Conclusion & Limitations

In the United States, executive compensation is of high concern to many parties; shareholders, the company itself, employees of the company, and auditors to name but few. The parties just mentioned, and more, are very interested in what exactly drives executive compensation since the value of it is so high. This research engagement aimed to discover a relationship between CEO pay, in aggregate and each individual component of it, and several financial performance indicators and non-financial characteristics of both the company and of the individual CEO. Through regression analysis, we discovered many relationships between the independent variables and the dependent variable, CEO pay. These relationships are best described and summarized in Table 14. It is noted that we were able to reject the null hypothesis in each of the regression analyses as at least one predictor variable in each model was statistically significant. A reoccurring theme in nearly all regression analyses, as one might

expect, was that company size in terms of number of employees and classification of a first tier company (by total asset cutoff discussed earlier) has a positive influence on CEO pay. Also, financial performance measures such as ROE (most frequently) and ROA did indeed have a significant relationship to several of the pay components examined, but not to the extent of the previously cited studies on financial institutions.

As with all empirical work, there are certainly limitations to our findings. These significant relationships we have uncovered pertain only to our sample of 79 companies (306 observations) within the 3000 economic sector and only to the specific statistical analysis (regression analysis) that we chose to implement. In particular, since the number of the sample firms from the package food & meat industry is almost half of the total firms, the interpretation of the results may not be appropriate to be applicable to the entire consumer staples sector. As mentioned earlier, a large percentage of this type of analysis has been done on financial institutions in several different countries. Looking forward, it may be interesting to evaluate a more volatile industry not as highly regulated as financial institutions, such as the technology industry using the same research method to seek comparability to this study.

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