# The Alignment of Top Executive Team Compensation with Company Performance 

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#### Abstract

Claims of excessive top executive team compensation irrespective of company performance resulted in a law allowing shareholders to approve compensation. The approval, called say-onpay, was supposed to help align compensation with performance. Since say-on-pay was implemented in 2011, little has been done to test its efficacy. This study looks at the potential efficacy of say-on-pay by looking for evidence that compensation aligns with performance six years after say-on-pay was first implemented. Say-on-pay may have had its intended effect if, by 2017, compensation aligns with performance. Compensation is measured as all forms of pay given to the top five executives of a company. Performance is measured by company stock prices or factors that support stock prices, such as sales and earnings. A close alignment between compensation and performance should be possible because compensation is mostly company stock and stock options. However, agency costs and managerial power may overwhelm say-on-pay oversight so that compensation still does not align with company performance. This paper examines compensation and performance in S\&P 500 companies in 2017 and finds little evidence that say-on-pay has aligned compensation with performance.


Key words: Executive compensation, company performance, corporate governance.

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## Introduction

Executive compensation has been the focus of criticism partly due to a misalignment of compensation with company performance. According to data in an Economic Policy Institute report (Mishel \& Wolfe, 2019), from 1965 to 2017, the value of S\&P stocks grew 307 percent, yet CEO compensation in large U.S. companies grew 1,769 percent. The disproportionate increase of stock performance and executive compensation is surprising because, by 2017, 65 percent of CEO compensation was comprised of company stock and options. In addition, CEO pay growth has had spillover effects, pulling up the pay of other executives and managers, making it important to examine not just CEO compensation but compensation for executive teams. The report goes on to say that rising CEO pay is unlikely to reflect the rising value of CEO skills, but rather the use of CEO power to set their own pay. The possibility of CEOs being able to set their own pay is best understood using agency theory and corporate governance principles.

Agency theory suggests that agents are expected to act in the best interest of their principals (Jensen \& Meckling, 1976). Applied to corporate governance, executives are the agents who are expected to act in the best interest of stockholders, who are the principals. One way to promote the expected actions is to compensate executives based on company performance. To this end, boards tie top executive team compensation to stock prices. This suggests that the stock price of the company, or major factors that support stock prices, such as earnings and sales, should explain executive compensation and thereby align compensation with performance. This is an especially important issue today because, in the past several decades, outcries against failures in corporate governance produced a major piece of federal legislation that strengthened corporate governance to encourage the alignment of compensation with performance.

A federal law that attempted to strengthen corporate governance and encourage the alignment of compensation with performance is the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank). Dodd-Frank requires companies to give shareholders a say in setting the pay of their top five executive officers. Commonly called say-on-pay, it requires companies to present a nonbinding resolution for shareholders to vote on that approves the compensation package of the top five executive officers (CEO, CFO, and three other executive officers with the highest compensation). Say-on-pay resolutions began being presented to shareholders in 2011 and should have encouraged the alignment of executive compensation with company performance. However, the say-on-pay requirement was considered an experiment by some, and there were calls to eliminate or weaken say-on-pay. For example, although never passed by the U.S. Senate, the Financial CHOICE Act of 2017 attempted only to require a say-on-pay vote when drastic changes are made in executive compensation (Fisch, et al., 2018). This attempt to weaken say-on-pay may be due to a lack of evidence on its efficacy. The lack of evidence for the efficacy of say-on-pay is a reason to study the alignment of executive compensation and company performance after say-on-pay has had time to take effect.

The purpose of this study is to look for evidence that top executive team compensation is explained by company performance factors that include sales, earnings, and stock price at a point in time after major federal legislation strengthened corporate governance, and thereby determine if that legislation or existing corporate governance mechanisms were enough to align compensation with performance. This paper continues with a literature review, a discussion of the methodology used to explore the current alignment of compensation with performance, a presentation of the results, and a conclusion that includes suggestions regarding the contributions of the findings, shortcomings of the study, and opportunities for further research.

## Literature Review

Top executive team compensation came under fire because many perceived a misalignment of compensation with performance (Boyer, 2005; Murphy, 1999; Newman \& Newman, 2018). The Economic Policy Institute reported that from 1987 to 2016, typical worker pay increase was around 10 percent, while CEO compensation was around 900 percent (Mishel \& Schieder, 2017). To an extent, a scarcity of human capital for executive positions might justify an increase in compensation, but there has been no shortage of MBA graduates. In fact, the number of MBA graduates has increased by roughly 235 percent, with roughly 57,000 graduates in 1980-1981 and 191,000 in 2011-2012, according to the Digest of Education Statistics. Furthermore, research indicates that top executive team power may decrease the effectiveness of pay governance (Bebchuk \& Fried, 2006) and that power has increased (Bayless, 2009; Bebchuk \& Fried, 2006; Benson \& Davidson, 2010; Boyer, 2005; Nyberg, et al., 2010).

The alignment of compensation with performance, or lack thereof, has been examined, but the findings are mixed. One study found no alignment (Gong et al., 2011). Governance dysfunction was found in the form of lax oversight (Bebchuk \& Fried, 2006; Mangen \& Magnan, 2012). It was suggested that shareholders intervene to monitor compensation (Root, 2004). It was also suggested that irrational stock price movements may remove the alignment of compensation with performance (Bogle, 2008). However, not all studies support the idea of no alignment of compensation with performance. Some argue that compensation aligns with performance because companies must be able to attract, retain, and motivate the top executive team (Agarwal, 2010; Conyon, 2006; Ellig, 2001; Valenti, 2013). Others argue that executives are motivated to increase stock values by the stock and options portion of their compensation package (Jayaraman \& Milbourn, 2012). Others say an efficient labor market controls compensation (Cao \& Wang, 2013; Gabaix \& Landier, 2008; Murphy \& Zabojnik, 2004; Weiss, 2011). Excessive compensation may
be limited by the moral convictions of the executive team (Moriarty, 2009). Value generating compensation packages may help explain compensation (Schneider, 2013). Finally, institutional investors monitor top executive team compensation (Ellig, 2014).

Agency theorists posit that executives as agents tend to act out of self-interest to the detriment of owners as principals (Jensen \& Meckling, 1976). This tendency is referred to as an agency problem. An example of an agency problem is unjustifiably high executive compensation packages (Bebchuk \& Fried, 2003). These packages represent money that is either not distributed to owners in the form of dividends or reinvested in the organization, which is to the detriment of the owners of an organization (Newton, 2015; Sapp, 2008). Governance mechanisms, such as directors, should mitigate agency problems (Kumar \& Zattoni, 2013). However, directors have self-interests based on characteristics of the groups to which they belong (Marquis \& Lee, 2013). Directors acting on behalf of themselves is contrary to the critical agency theory assumption that directors behave in ethical ways to effectively monitor an organization and protect their personal reputation in the public eye (Cowen \& Marcel, 2011). Yet directors do not always act in the best interest of shareholders (Zalewska, 2014). Directors are humans who can act out of self-interest (Certo et al., 2008). Scholars find that directors who monitor less are more likely to be appointed to more boards, although this is less the case for women and minorities (Westphal \& Stern, 2007). These findings call into question the assumption that reputation is a control for director behavior, and discourages directors to effectively monitor for the benefit of shareholders (Westphal \& Stern, 2007). Therefore, when protecting their reputation is not enough to induce directors to effectively monitor, increasing board diversity may be an easy way for boards to become more effective. However, there is yet another way to mitigate governance dysfunction, which is based in agency theory and involves using compensation.

To mitigate governance dysfunction, director compensation should align the interests of directors with owners through cash payments and by making directors part owners of the firm (Brick et al., 2006). Cash payments and ownership allocations to directors are mixed incentives used by many companies in director compensation packages. The compensation package usually consists of an annual retainer comprised of cash, stock, and often stock options (Sengupta \& Zhang, 2015). Scholars do not find a positive association between director cash compensation and the effectiveness of board governance; however, they do find a positive association between director equity compensation and the effectiveness of board governance (Sengupta \& Zhang, 2015). Furthermore, scholars note that directors act out of self-interest (Fredrickson et al., 1988) and have also found a positive association between CEO and board homogeneity and high CEO compensation (Westphal \& Zajac, 1995). This overly high CEO compensation is arguably an example of governance dysfunction. These findings suggest that board homogeneity increases governance dysfunction and may be facilitating self-interest on the part of top executives and decreasing the link between compensation and performance. In summary, the literature brings into question the ability of say-on-pay to closely align executive team compensation with company performance.

## Methodology

This study examines the extent that top executive team compensation can be explained by sales, earnings, and stock price performance factors at a point in time after the implementation of say-on-pay to strengthen the explanatory power of those factors. If any of those performance factors explain compensation, there is evidence that executive compensation aligns with company performance. Compensation is measured for the team of top executives whose compensation is required to be reported to the SEC. Performance that benefits stockholders is measured in three
different ways, two of which indirectly benefit stockholders, and one is a direct benefit. First, sales indirectly benefit stockholders by indicating the level of company market presence and brand recognition, both of which should increase the intrinsic value of company stock. Second, earnings indirectly benefit stockholders by providing funds for company growth and cash dividends, which also should increase the intrinsic value of company stock. Third, market capitalization benefits stockholders by directly impacting their wealth. With all three measures of performance, it is important to examine if current year performance or previous year performance explains executive compensation, either of which is possible depending upon how compensation is structured.

Using sales as the measure of company performance leads to our first hypothesis:

Hypothesis 1: Compensation to the team of five top executives is directly explained by either the current year or previous year level of company sales.

Using earnings as the measure of company performance leads to our second hypothesis:
Hypothesis 2: Compensation to the team of five top executives is directly explained by either the current year or previous year level of company earnings.

Using market capitalization as the measure of company performance leads to our third hypothesis:
Hypothesis 3: Compensation to the team of five top executives is directly explained by either the current year or previous year level of company market capitalization.

In each hypothesis, the variable investigated is the total compensation to a team of top executives, as reported to the SEC in company DEF 14-A filings. Those filings typically have fiscal year compensation to five executives, which includes salary, bonus, stock, options, and perquisites, and is the most comprehensive information publicly available. Compensation does not include deferred pension plan compensation since that is valued inconsistently. Top executives include the chief executive officer (CEO), the chief financial officer (CFO), and three other most
highly compensated executives. Team compensation is used rather than just CEO compensation because team compensation tends to be less variable and less likely to have outliers than only CEO compensation (Newman \& Newman, 2018). For example, Sundar Pichai, CEO of Alphabet, Inc. (Google), was paid $\$ 200$ million in 2016 (vs. $\$ 239$ million for the team) and then was paid just $\$ 1.9$ million in 2019 (vs. $\$ 49.2$ million for the team). The differences in CEO and team compensation can be even more stark. For example, Jack Dorsey, CEO of Twitter, Inc., was paid nothing in 2017, while his executive team was paid $\$ 15.2$ million. The compensation variable is not adjusted for inflation because the variables are from just two adjacent years, 2016 and 2017. From December 2016 to December 2017, the Consumer Price Index for All Urban Consumers (CPI-U) rose just 2.1 percent (U.S. Bureau of Labor Statistics, 2018). The 2016 variables are used as lagged variables since the year of focus is 2017.

Testing the hypotheses requires controlling for other factors that may explain compensation. For example, executive ages should explain compensation with a positive relationship because ages should measure experience, and more experience should garner more compensation. Compensation may also be explained by gender, either positively or negatively. A positive relationship should exist if companies pay for diversity. A negative relationship is possible if wage discrimination against females exists. Therefore a count variable of females in the group of five top executives shows the number of females in the group, and a binary variable is included if the CEO is female. Directors who are also the CEO of another company may provide extra expertise and justify more compensation, or be evidence of managerial power that demands more compensation. CEOs who also chair the board might get more compensation for the executive team due to greater influence with other directors, so a binary variable is added, coded one (1) if the CEO also chairs the board, and zero otherwise. Pay to directors may explain compensation if
directors are paid for their expertise, which also requires greater executive team expertise. Greater expertise may also exist with directors if they also serve on other company boards, so a variable is added that sums the number of other company boards upon which directors serve. Then to capture the influence of gender in the board room when setting executive compensation, the percentage of females on the board is included, along with the percentage of females on the board's executive compensation committee (Bilimoria \& Piderit, 1994; Newman \& Mozes, 1999). General and administrative expenses should be directly related to executive compensation since a larger overhead should require more managerial expertise (Benson \& Davidson, 2010; Fong et al., 2015; Newman, et al., 2019). Balance sheet assets measure company size and directly relate to executive compensation as larger companies demand greater executive skills (Cao \& Wang, 2013; Fong et al., 2015; Waldron et al., 2013). Company risk measured by its stock beta directly relates to compensation if more skills are needed to manage riskier companies, and greater incentive is required to induce executives to lead a risky company (Gormley et al., 2013).

Testing the hypotheses focuses on explaining compensation with three variables: sales, earnings, and market capitalization. The sales variable is gross revenue for a company's fiscal year and also measures company size (Balsam et al., 2011; Benson \& Davidson, 2010; Cao \& Wang, 2013; Conyon, 2014; Gong, 2011; Newman et al., 2019). The earnings variable is fiscal year net income (Gabaix \& Landier, 2008; Newman et al., 2019). The market capitalization variable is the market price of a company's common stock multiplied by the shares outstanding at fiscal year-end (Bayless, 2009; Cao \& Wang, 2013; Gabaix \& Landier, 2008; Newman et al., 2019). A summary of variables and their definitions is in Table 1.

Table 1: Variable Definitions
ExecPay: pay sum of CEO, CFO, and 3 highest-paid executives. ExecAges: sum of ages for the CEO, CFO, and 3 highest-paid executives.
FemExecs: number of females in the top 5 executive team.
FemCEO: 1 if the CEO was female, otherwise 0 .
CEO\&Chr: 1 if the CEO is also the board chair, otherwise 0 .
DirPay: sum of pay for all directors.
DirTies: number of other boards directors serve on.
FemBrd: percentage of the board who were females.
FemCom: percentage of females on the compensation committee.
G\&AExp: company general and administrative expense.
Assets: company total assets.
Beta: from 2-3 years of stock prices and the S\&P 500 index.
Sales: gross sales or revenue for the company.
Earnings: company net income.
MktCap: market capitalization of the company.
The data are from companies in the S\&P 500 index in 2017. The index was used in previous studies that examined executive compensation (Benson \& Davidson, 2010; Fong et al., 2015; Gong, 2011; Newman et al., 2019). Justification for the S\&P 500 index is that: the S\&P 500 is widely regarded as the best single gauge of large-cap U.S. equities; the index includes about 500 leading companies and captures approximately 80 percent coverage of publicly available market capitalization; the index contains companies from 11 different sectors (i.e., information technology, healthcare, financials, communication services, consumer discretionary, industrials, consumer staples, energy, utilities, real estate, and materials); companies in the index are based in the United States; these companies have at least 50 percent of shares outstanding available for trading; and S\&P 500 index companies have highly tradable common stock, with active and deep markets (S\&P Global, 2020). Financial statement variables were extracted from Compustat, and
officer and director variables were extracted from Compuserve. Descriptive statistics on the data are provided in Table 2.

Table 2 descriptive statistics include mean, minimum, median, and maximum values. These values are from 276 companies with complete data sets for 2017 and 2016 . The 2016 variables were used as lagged variables to explain 2017 compensation, but none were significant, so their descriptive statistics are not shown. Executive pay (ExecPay) has a mean of almost $\$ 30$ million, but a median of about $\$ 26$ million, suggesting some skewness pointing toward a few high amounts. The gender variables indicate a little over 27 percent of the top five executives are female (FemExecs), with under 4 percent of CEOs being female (FemCEO), and 22 percent of the board (FemBrd) and executive compensation committee (FemCom) being composed of females. Executives serving as both CEO and board chair exists in 42 percent of our sample companies. Pay to directors (DirPay) averages close to $\$ 3$ million, while each board of directors in sum served on an average of 11 other company boards (DirTies). General and administrative expense (G\&AExp) and total assets (Assets) for companies in our sample show means over twice their medians, so some companies with very large amounts are probably skewing the distributions. Our test variables, sales (Sales), earnings (Earnings), and market capitalization (MktCap), also show means substantially higher than their medians, which further suggests skewness. The skewness evident from the descriptive statistics requires a Cook's Distance test to identify outliers that could influence regression coefficients, and the monitoring of variance inflation factors to suggest the level of multicollinearity present that could reduce confidence in the coefficients.

Table 2: Descriptive Statistics

| Variable | Mean | Minimum | Median | Maximum |
| :---: | :---: | :---: | :---: | :---: |
| ExecPay $^{(a)}$ | 29.57 | 2.88 | 25.68 | 124.73 |
| ExecAges $^{\text {FemExecs }}$ | 273.37 | 166.00 | 275.00 | 334.00 |
| FemCEO | 0.2717 | 0.0000 | 0.0000 | 2.0000 |
| CEO\&Chr | 0.0362 | 0.0000 | 0.0000 | 1.0000 |
| DirPay $^{(a)}$ | 0.4239 | 0.0000 | 0.0000 | 1.0000 |
| DirTies $^{(b)}$ | 2.97 | 0.24 | 2.81 | 7.90 |
| FemBrd $^{(b)}$ | 11.0 | 0.0 | 11.0 | 28.0 |
| FemCom $^{(b)}$ | 22.1 | 0.0 | 22.2 | 50.0 |
| G\&AExp $^{(a)}$ | 22.0 | 0.0 | 25.0 | 100.0 |
| Assets $^{(a)}$ | 4,483 | 28 | 1,866 | 104,736 |
| Beta $^{(a)}$ | 1.0453 | 1,034 | 17,034 | $2,533,600$ |
| Sales $^{(a)}$ | 22,737 | -0.4290 | 0.9735 | 3.5234 |
| Earnings $^{(a)}$ | 1,993 | 1,029 | 9,558 | 496,785 |
| MktCap $^{(a)}$ | 46,259 | $-5,774$ | 845 | 30,101 |

$N=276$ for all variables; ${ }^{(\text {a) }}$ in millions of dollars; ${ }^{\text {b })}$ in percent. Year $=2017$.
An initial look at compensation aligning with performance is done with correlations to examine univariate relationships of the compensation variable with the performance and control variables. Correlations are also examined between performance and control variables that could indicate the possible impact of collinearity in a multivariate model. Another look at compensation aligning with performance uses regression to identify significant explanatory variables. The regression investigation includes both Ordinary Least Squares (OLS) and Stepwise procedures. OLS uses all of the variables identified as potentially influencing executive pay. Stepwise systematically adds the most significant variable and removes the least significant variable during each step of its procedure until only significant explanatory variables remain. Stepwise is particularly useful to reduce the impact of multicollinearity on the regression coefficients.

## Results

Correlations between pairs of the variables used in this study are in Table 3. The highest correlation with the executive pay (ExecPay) dependent variable is that for director pay at 0.32 .

Correlations between the explanatory variables that exceed 0.50 are considered high. With all three performance variables (Sales, Earnings, MktCap) having correlations with executive pay (ExecPay) below 0.50 , little support exists from correlations for the three hypotheses being tested. General and administrative expense (G\&AExp) is highly correlated with sales (Sales), earnings (Earnings), and market capitalization (MktCap). There are also high correlations between total assets (Assets) and company earnings (Earnings), as well as between market capitalization (MktCap) and both sales (Sales) and (Earnings). The explanatory variable correlations could lead to distorted regression coefficients and call for a close look at their variance inflation factors in the full regression and justify also including results from a Stepwise procedure.

Regression output from using the OLS procedure is in Table 4. Table 4 shows only two explanatory variables significant at the 0.05 significance level. These variables are director pay (DirPay) and general and administrative expense (G\&AExp). If significance is raised to the 0.10 level, executive ages (ExecAges), risk (Beta), and company performance measured by sales (Sales) are also significant. Unexpectedly, and possibly the result from multicollinearity is the sign on the sales (Sales) coefficient. The lack of a significant direct (positive) relationship between any of the performance variables (Sales, Earnings, MktCap) and executive team pay (ExecPay) suggests rejecting all three hypotheses being tested. Variance inflation factors for the explanatory variables are all below ten, with general and administrative expenses (G\&AExp) having the highest at 6.43. Overall, the regression was able to explain just over 14 percent of the variation in 2017 executive compensation (ExecPay). Cook's values, obtained to eliminate outliers, removed just two observations with values above 0.80 , so that the highest Cook's value after outlier elimination was 0.29 .

Table 3: Correlations

|  | ExecPay | ExecAges | FemExecs | FemCEO | CEO\&Chr | DirPay | DirTies |
| :--- | :---: | :---: | :--- | :---: | :--- | :---: | :---: |
| ExecAges | 0.052 |  |  |  |  |  |  |
| FemExecs | -0.042 | -0.007 |  |  |  |  |  |
| FemCEO | -0.026 | 0.078 | 0.296 |  |  |  |  |
| CEO\&Chr | 0.032 | 0.265 | 0.019 | 0.030 |  |  |  |
| DirPay | 0.320 | -0.078 | 0.129 | 0.161 | -0.007 |  |  |
| DirTies | 0.125 | 0.039 | -0.010 | 0.081 | 0.011 | 0.403 |  |
| FemBrd | 0.035 | 0.074 | 0.146 | 0.177 | 0.107 | 0.100 | 0.206 |
| FemCom | 0.003 | 0.024 | 0.034 | 0.052 | 0.001 | -0.055 | 0.049 |
| G\&AExp | 0.269 | -0.029 | 0.107 | 0.062 | 0.058 | 0.261 | 0.197 |
| Assets | 0.116 | -0.075 | 0.226 | 0.001 | 0.079 | 0.274 | 0.150 |
| Beta | 0.074 | 0.039 | -0.075 | -0.121 | 0.180 | -0.004 | 0.022 |
| Sales | 0.203 | 0.069 | 0.066 | 0.022 | 0.087 | 0.249 | 0.176 |
| Earnings | 0.187 | -0.055 | 0.157 | 0.010 | 0.119 | 0.227 | 0.204 |
| MktCap | 0.246 | -0.054 | 0.236 | 0.037 | 0.146 | 0.285 | 0.180 |
|  | FemBrd | FemCom | G\&AExp | Assets | Beta | Sales | Earnings |
| FemCom | 0.452 |  |  |  |  |  |  |
| G\&AExp | 0.140 | 0.035 |  |  |  |  |  |
| Assets | 0.086 | -0.058 | 0.452 |  |  |  |  |
| Beta | -0.001 | -0.035 | -0.084 | 0.099 |  |  |  |
| Sales | 0.174 | 0.018 | 0.857 | 0.310 | -0.046 |  |  |
| Earnings | 0.194 | -0.059 | 0.615 | 0.576 | -0.065 | 0.490 |  |
| MktCap | 0.156 | -0.011 | 0.718 | 0.493 | -0.119 | 0.542 | 0.756 |
| N 276 |  |  |  |  |  |  |  |
| F |  |  |  |  |  |  |  |

Table 4: OLS Regression Predicting ExecPay

| Term | Coefficients | $\boldsymbol{t}$-Value | $\boldsymbol{p}$-Value | $\boldsymbol{V I F}$ |
| :--- | :---: | :---: | :---: | :---: |
| Constant | -19724 | -1.22 | 0.225 |  |
| ExecAges | 102.7 | 1.80 | 0.073 | 1.14 |
| FemExecs | -3316 | -1.34 | 0.183 | 1.24 |
| FemCEO | -6741 | -1.08 | 0.280 | 1.20 |
| CEO\&Chair | -771 | -0.33 | 0.741 | 1.17 |
| DirPay | 0.0064 | 4.95 | 0.000 | 1.38 |
| DirTies | -186 | -0.77 | 0.442 | 1.27 |


| FemBrd | -837 | -0.06 | 0.955 | 1.48 |
| :--- | :---: | :---: | :---: | :---: |
| FemCom | 2029 | 0.31 | 0.755 | 1.33 |
| G\&AExp | 0.772 | 2.50 | 0.013 | 6.43 |
| Assets | -0.0000 | -1.41 | 0.160 | 1.74 |
| Beta | 3066 | 1.79 | 0.074 | 1.12 |
| Sales | -0.0000 | -1.67 | 0.096 | 4.36 |
| Earnings | 0.0000 | 0.24 | 0.814 | 2.87 |
| MktCap | 0.0000 | 0.88 | 0.379 | 3.49 |

$N=276 ;$ VIF $=$ Variance inflation factor; Adjusted $R^{2}=14.3 \%$; Highest Cook's value $=0.29$
Regression output from using the Stepwise procedure is in Table 5. Table 5 shows only two explanatory variables significant at the 0.05 level. The variables significant at 0.05 are director pay (DirPay) and general and administrative expense (G\&AExp). If significance is raised to the 0.10 level, the number of female executives in the group of the top five highest-paid executives (FemExecs) is also significant. Variance inflation factors all dropped for the three explanatory variables, with the highest being 1.09 , thereby virtually eliminating the potential influence of multicollinearity. None of the company performance variables (Sales, Earnings, MktCap) survive the Stepwise procedure 0.10 cutoff, which is evidence to reject all three hypotheses being tested. The Stepwise regression procedure explained 14 percent of the variation in 2017 executive compensation (ExecPay). The same observations were used in the Stepwise procedure as in OLS regression, so the highest Cook's value was the same as the OLS regression, and no additional observations were deleted as outliers.

Table 5: Stepwise Regression Predicting ExecPay

| Term | Coefficients | $\boldsymbol{t}$-Value | $\boldsymbol{p}$-Value | VIF |
| :--- | :---: | :---: | :---: | :---: |
| Constant | 12308 | 3.56 | 0.000 |  |
| FemExecs | -4013 | -1.78 | 0.077 | 1.02 |
| DirPay | 0.0055 | 4.79 | 0.000 | 1.09 |
| G\&AExp | 0.452 | 3.57 | 0.000 | 1.08 |

$N=276 ;$ VIF $=$ Variance inflation factor; Adjusted $R^{2}=14.0 \%$; Highest Cook's value $=0.29$

## Conclusion

This paper explores the extent of alignment of top executive team compensation with company performance after the say-on-pay requirement in Dodd-Frank should have had time to strengthen corporate governance and finds no substantial evidence to support alignment. Multivariate results provide evidence to reject the hypotheses that a positive relationship exists between executive team compensation and company performance measured by either sales, earnings, or market capitalization. Our results are consistent with the only other known study that examined the alignment of compensation with company performance done shortly after say-onpay was introduced (Gong et al., 2011). However, we found evidence to support the view that compensation to the top five executives in S\&P 500 companies is aligned with director pay and a company's total general and administrative expense. We also found weak evidence for executive team compensation being negatively related to the number of females on the executive team.

The findings from this study are evidence to suggest that the say-on-pay requirement in DoddFrank was not enough to align executive compensation with company performance. Agency costs and managerial power may indeed be factors overwhelming the say-on-pay corporate governance mechanism put in place by Dodd-Frank, as well as the existing mechanisms provided through the board of directors. Academics, lawmakers, and practitioners may need to look for new ways to align executive compensation with company performance.

Of course, this study has shortcomings and needs corroboration. Only one year of executive compensation was examined, so there is a need for more research looking at data from other years. Also, different groups of companies should be studied. And although the number of variables to explain executive compensation was quite extensive in this study, there could be additional variables to measure company performance or to control for other factors that need to be identified
and included in an analysis. Regardless of the shortcomings and the need for additional research,
this study offers a small contribution to the question of the ability of say-on-pay to align top
executive team compensation with company performance.

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