

SAY ON PAY: IS IT GLOBALLY VALUE-ENHANCING?

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ABSTRACT

There is a global movement to give shareholders a greater role in the corporate process. Say on Pay, which gives shareholders the right to vote on executive compensation is one of the tools of increased corporate democracy. Prior studies have been conducted to analyze Say on Pay on the U.K. and U.S., but this is the first study to analyze Say on Pay in a cross-country context. Analyses are conducted within a single country environment and within various groups (legislated vs. shareholder-initiated votes, binding vs. non-binding legislation, common law vs. civil law systems, and widely-held vs. concentrated ownership). So far, I find that stocks of firms with positive abnormal CEO compensation and low CEO pay for performance react in a significant, positive manner. Significant positive abnormal returns are also earned by firms more likely to implement changes under shareholder pressure. For firms that receive shareholder-initiated Say on Pay proposals, I find that the stock price of these firms reacts negatively when the proposals are announced and when the proposal is passed. The reaction is stronger when the sponsoring shareholder is a labor union. When shareholders vote down these proposals, the market reacts positively, and the reaction increases with the level of votes against the proposals. Overall, the findings suggest that the market views Say on Pay as value-enhancing for the companies with inefficient executive compensation and relatively poor corporate governance but value-destroying for other companies.

KEYWORDS: Say on Pay, Executive compensation, Shareholder Activism, Access to Proxy

INTRODUCTION

In April 2012, Citigroup shareholders voted to reject the company's executive compensation plan during its annual stockholders meeting after critics and proxy advisory firms complained that there was a pay for performance disconnect, a failure to properly disclose the value of incentives, and too many discretionary award opportunities. The proposal received just 45 percent of votes cast and followed Citigroup's announcement that profit fell 2 percent from a year earlier - missing analyst expectations - and that a dividend increase or share buyback program would not happen because in mid-March the bank failed the Fed's stress tests that measure banks' potential strength in adverse economic conditions.

A month later, European investors revolted over executive pay voting down Aviva Plc's compensation plan with a 54 percent majority, while 37 percent of investors opposed UBS AG's plan and 40 percent opposed Inmarsat Plc's plan. Four years of stagnant or negative economic growth since the Financial Crisis coupled with the European debt crisis and a growing disparity between the compensation of executives and average workers had pushed shareholders to protest "excessive" compensation practices. In all the instances, it was Say on Pay that allowed the shareholders to vote on the proposed compensation packages.

What is Say on Pay? What means are available to provide shareholders with Say on Pay? What does Say on Pay imply about governance? Most importantly, what is the impact of providing shareholders with a Say on Pay? Say on Pay is a commonly used expression to reflect the concept that shareholders have an opportunity to hold a vote on the compensation of a firm's executives. The broad goals of the movement were to invigorate shareholder participation in corporate governance, to rein in unjustified and excessive CEO pay, and to help reduce executives' incentives to chase short-term profits. Though Say on Pay has been enacted in a dozen countries – the U.K. (2002), Australia (2004), the Netherlands (2004), Sweden (2006), Norway (2007), Denmark (2007), the U.S. (2010), South Africa (2011), Spain (2012), Belgium (2012), and Italy (2012) – it is highly complex and does not have uniform components from market to market.

These mandated shareholder votes can be implemented in two forms – as binding compensation policy resolutions or as advisory compensation policy resolutions. In addition, in some countries without mandatory Say on Pay votes - Switzerland, Canada, Germany, and Ireland, it can be adopted voluntarily following a shareholder proposal to that effect. Some firms have adopted advisory compensation policy resolutions, approval of incentive plans, and other approvals.¹ A number of countries are considering adopting Say on Pay legislation. The Swiss Federal Council will vote in late 2012/early 2013 to join Denmark, Norway, Sweden and the Netherlands as countries with binding Say on Pay legislation. The U.K., which has advisory Say on Pay legislation, like the U.S., Spain, and Australia, is considering converting to annual binding votes. Table I shows the countries by type of Say on Pay.

Many opponents question the need for Say on Pay and suggest that there are no tangible benefits, only tangible costs to the implementation. The European Commission, which has been issuing recommendations in connection with compensation since 2004, recently updated the Green Paper on Corporate Governance and raised the question of whether pay plans should be subject to a binding or advisory shareholders vote. These questions are central to the future of the Say on Pay movement. Given the number of countries that have legislated Say on Pay and shareholder-initiated votes, it is time to evaluate the impact of Say on Pay to the level, growth rate, pay-to-performance sensitivity, pay dispersion, and composition of executive compensation, as well as to compare the impact of implementing mandated binding votes, mandated advisory votes, and shareholder-initiated votes.

This study is the first to analyze Say on Pay in a cross-country context. Analyses are conducted within a single country environment and within various groups (legislated vs. shareholder-initiated votes, binding vs. non-binding legislation, common law vs. civil law systems, and widely-held vs. concentrated ownership). Not only does it contribute to the executive compensation literature, but it contributes to the regulatory impact and international accounting literature streams.

¹ Other approvals include approval of severance arrangements, non-compete clauses, pension agreements, grants of options to individuals plus approval of capital authorizations required to meet the obligations under share-based incentive plans.

Compensation, especially if it is deemed “excessive,” must be framed within a corporate governance context because compensation and corporate governance are highly interrelated: bad governance can easily lead to value-destroying pay practices, and good governance can mitigate the agency problems between board members and shareholders. There is empirical evidence that poor governance is associated with excessive cash and total compensation (Core et al. 1999).

These issues should not only be studied within a single country context because of the rapid convergence in corporate governance structures. Increased global competition in the capital and product markets makes corporate governance another battlefield on which firms must compete or die: choose the wrong form, and a firm will suffer at the hands of competitors who choose a superior form. Firms that employ a sub-optimal system of corporate governance will be punished by the product and capital markets, until they adapt or disappear.

Corporate governance is the product of private, market-based practices, but there are important economic policy implications. Corporate decision-making and finance impacts the competitiveness of economies, on the corporate investment levels and on the allocative efficiency of capital markets. Corporate governance is of direct relevance to policy makers because laws, institutions, and regulations have direct impact on firms. Company law, securities regulation, oversight of financial institutions, accounting rules, and bankruptcy laws impact the way firms make decisions and behave in the market and towards their different constituents. This framework shapes most of the firm’s relationships that are outside the contractual realm. According to Black (1999), policy makers are responsible for striking the best balance between mandatory law and contract in each jurisdiction thus providing the optimum mix between flexibility and predictability.

As capital markets expand, information flows improve, and restrictions on investment disappear, it has progressively become easier for investors of one country to invest in corporations in another. Movement towards a global capital market has a substantial impact on corporate governance in individual countries. In a world with intense competition for investment funds, sophisticated investors

will be attracted to jurisdictions in which investment structures serve shareholders' interests. Since the attractiveness of a particular locality depends on its system of corporate governance, local norms may be adjusted to make domestic markets more accommodating to global trends. Therefore, it is important to know which practices are useful. This study seeks to analyze Say on Pay so that we can evaluate whether the practice is useful and which forms have the most impact.

Most studies on Say on Pay have analyzed the impact on the U.K. market, and to a lesser extent the U.S. market. Both countries have market-based economies, common law legal systems, high investor and creditor protection as measured by La Porta, Lopez-de-Silanes, and Shleifer (2006), dispersed ownership structures, and market-centered corporate governance systems. There are also similarities between the U.K. and U.S. as it relates to the breadth and depth of their capital markets, the pace of new security issues, corporate ownership structures, dividend policies, and the efficiency of investment allocation. In addition, both countries share important governance features such as active takeover markets and unitary board structures, etc.). There are even similar systems of executive compensation, though executives in the U.S. are considered more highly paid than their counterparts in the U.K. In addition, executives in both countries have been dogged over the last several decades with claims of excessive executive compensation. Perhaps, the findings about Say on Pay are less useful because they have only been considered in the context of countries with advisory shareholder votes.

Do the findings change when Say on Pay votes are binding and are implemented in countries with lower investor protection (Netherlands, Norway, and Sweden)? The types and structures of Say on Pay vary across countries in part due to differing motivations, as well as differing institutional and cultural factors that have shaped compensation and corporate governance practices. A cross-country comparison is potentially useful because it will allow us to identify factors associated with Say on Pay that are relatively constant and that vary within a single country, across countries, and within various groups (legislated vs. shareholder-initiated votes, binding vs. non-binding legislation, common law vs.

civil law systems, and widely-held vs. concentrated ownership). Identifying these factors is crucial to determine if one specific system of Say on Pay is superior to another.

Cross-country studies on compensation are difficult - partly due to methodological difficulties arising from differences in accounting and disclosure practices. In some countries, it is not even possible to obtain official information on executive pay. Moreover, comparisons through time are hampered by methodological changes in the way executive pay is calculated and/or disclosed. With these caveats in mind, the study is designed to examine the patterns of executive pay before and after Say on Pay for the countries for which data are available.²

LITERATURE REVIEW

While the executive compensation literature stream in economics, finance, and accounting is voluminous, there is a dearth of literature on Say on Pay. Several studies have been done in the legal realm, but in terms of empirical results, Say on Pay measures are so new that there is only very limited evidence, with most of the literature analyzing the effects of it in a single country environment. No academic study analyzes the impact of Say on Pay across national boundaries.

Murphy (1999) and Core, Guay, and Larcker (2001) survey the existing evidence on executive compensation in the U.S., particularly the degree to which executive compensation aligns top executives' interests with those of their shareholders; i.e. the sensitivity of executive pay to performance. Their research supports several broad conclusions: the sensitivity of pay to performance in the U.S. has increased over time, the vast majority of this sensitivity comes through executive ownership of common stock and of options on common stock, and stock options are the fastest growing component of CEO compensation in the U.S.

² Say on Pay votes are ex-post and typically relate to a report on the previous year actual executive compensation and current compensation philosophy. Votes to approve incentive plans, severance arrangements, non-compete clauses, pension agreements, or grants of options are generally ex-ante as they occur before the actual compensation contract is signed or designed. For this study, approval of incentive plans and other approvals are not included, even though they share some similarities with Say on Pay. While Say on Pay concerns specific individual executives, for whom compensation details are being provided and discussed, the other shareholder votes may have nothing to do with specific executives, making it harder to measure changes in the level, growth rate, pay-to-performance sensitivity, pay dispersion, and composition of executive compensation.

For the most part, non-U.S. evidence has been relatively limited, but corroborates the findings of Murphy (1999) and Core, Guay, and Larcker (2001). Kaplan (1994) compares executive compensation in the U.S. and Japan and concludes that executive compensation in both countries is related to stock returns and operating losses. The magnitude of the relation is similar in the two countries, although U.S. managers own more stock and stock options than do Japanese managers. Conyon and Murphy (2000) compare executive compensation in the U.S. and the U.K. and find that the level of cash compensation and sensitivity of compensation to increases in shareholder wealth are much greater in the U.S. than in the U.K. and attribute the difference largely to greater share option awards in the U.S. Bryan, Nash, and Patel (2002) investigate the relative use of equity in the compensation mixes of firms in 43 different countries and find that firms in countries with more equity-oriented capital markets and firms with higher growth opportunities use more equity compensation.

An early U.K. study by Conyon and Leech (1994) investigated the effect of shareholder power on CEO pay. They found weak evidence that greater shareholder control lowered CEO pay but no evidence that shareholder power constrained the growth in pay. Karpoff, Malatesta, and Walkling (1996) found that firms attracting governance proposals have poor prior performance, as measured by the market-to-book ratio, operating return, and sales growth. There was little evidence that operating returns improve after proposals. The proposals also have negligible effects on company share values and top management turnover. Even proposals that receive a majority of shareholder votes typically do not engender share price increases or discernible changes in firm policies.

Johnson and Shackell (1997) study a related SEC rule change in 1992 that added executive compensation to the list of topics for which shareholders could submit proposals to be voted on at the annual meeting. They studied the proposals relating to executive compensation from 1992 to 1995 and found no evidence that they had any effect on the level of pay. However, they did find that proposals relating to the independence of the compensation committee, in particular those submitted by institutional investors, often do lead to changes in the independence of that committee.

Cheffins and Thomas (2001), in an analysis of U.S. shareholders' behavior toward executive stock option award approval, found that shareholders are unlikely to generate significant differences in pay policies, either positive or negative. Morgan and Poulson (2001) study the proposal of manager-sponsored compensation plans linking pay to performance by S&P 500 firms in the 1990s. They examine the market perception of these proposals and the characteristics of the firms that propose them and find that shareholders gain when the plans are announced, especially when the plans are directed toward the firm's top executives. They suggest that firms with more potential agency costs have the highest vote-for percentages for the plans and that stock-based compensation plans are helpful in improving managerial efforts to increase shareholder wealth. Bethel and Gillan (2002) also examine shareholder oversight of compensation by focusing on shareholder voting on compensation-related proposals and have similar findings.

Subramaniam and Wang (2009) investigated shareholder-sponsored performance-oriented executive-pay proposals and found that firms are more likely to receive performance-oriented executive-pay proposals when they have higher agency costs, stronger shareholder rights, or high executive compensation in poor performing firms. These proposals gain more voting support than non-performance-oriented pay proposals. They also found that subsequent to the year of receiving performance-oriented shareholder executive-pay proposals, CEOs' compensation structures shift toward equity-based pay but only weakly.

After the enactment of Say on Pay in the U.K., several studies analyzed its effects. Carter and Zamora (2009) estimates a shareholder voting model using data on FTSE350 firms between 2002 and 2006 and find that shareholders disapprove of higher salaries, weak pay-for-performance sensitivity in bonus pay and greater potential dilution from equity pay. They also find some evidence that boards respond to past negative votes by reducing excess salary and dilution of stock option grants and also by improving pay for performance links.

Ferri and Maber (2009) studied U.K. firms from 2000 to 2005 to test the effect of the legislation on CEO pay-for-performance and found no evidence of a change in the level or growth rate of CEO pay after the adoption of the regulation. However, they did find that there was an increase in the sensitivity of CEO cash and total compensation to negative operating performance, particularly in firms with excessive compensation in the period prior to the regulations and in firms with high voting dissent. Ferri and Sandino (2009) finds that CEO compensation decreased in firms where a shareholder proposal to expense employee stock options was submitted. In addition, where the proposal gained greater shareholder votes, the subsequent decline in CEO pay was more marked.

Ertimur, Ferri, and Muslu (2009) studied the determinants and consequences of compensation-related activism using a sample of vote-no campaigns and shareholder proposals related to executive pay. They found that the proposals and campaigns were fueled by greater union pension fund activism and growing investor concerns with executive pay. Shareholders target firms with abnormally high CEO pay and lend greater voting support to proposals in such firms, suggesting a sophisticated understanding of CEO pay figures. Voting shareholders tend not to support proposals that try to micromanage CEO pay, but instead favor proposals related to the pay setting process. They find a \$7.3 million reduction in total CEO pay for firms with abnormally high CEO pay that are targeted by vote-no campaigns and a \$2.3 million reduction in firms targeted by shareholder proposals.

Alissa (2009) examines Say on Pay in a sample of UK FTSE350 firms in fiscal year 2006 to determine how the regulation affected the behavior of shareholders and boards. The study finds that shareholders use the vote to convey their dissatisfaction with excessive executive compensation practices. The boards respond to shareholders' dissatisfaction by: (1) reducing the excessiveness of CEO compensation for firms whose CEOs have above average excess compensation; or (2) forcing the CEO out of office. Conyon and Sadler (2010) used data on all U.K. public companies, which extends beyond the FTSE350 companies used in previous studies.

Whereas Carter and Zamora (2009) investigated shareholder voting on resolutions only and examined which aspects of executive compensation resulted in shareholder disapproval, Conyon and Sadler (2010) investigated shareholder voting on all proposals (such as resolutions to elect or re-elect directors and executives to the board) and evaluated how Say on Pay voting differed from those other proposals. They find that shareholders votes reflect their disapproval of higher salaries, higher excess bonuses, and greater dilution in stock-based compensation. They also examine the impact of shareholders' vote on components of executive compensation and find no evidence of the board responding to greater shareholder disapproval. Conyon and Sadler (2010) treat shareholder voting as an endogenous choice variable in their CEO pay equations and do not conduct a before and after test, but instead compare voting on Say on Pay with other non-pay related voting resolutions.

Based on a review of the U.K. experience with Say on Pay, Davis (2007) suggested that advisory shareholder votes on executive compensation policies appeared practical for adaptation in North America and other markets because the votes represented a lever that could strengthen both boards and shareholders in the quest to better align top corporate pay with performance. Cai and Walking (2011) analyze the benefits and costs of Say on Pay in the U.S. and document a positive significant reaction from firms with high abnormal CEO compensation and low pay for performance. Using firms that received shareholder sponsored proposals, they find that these companies are unlikely to benefit and that they seemed to be targeted for their large size rather than because of an overpaid CEO, poor governance, or poor performance. Stock prices react negatively to shareholder proposal announcement, especially when the proposal is sponsored by labor unions. When these proposals are defeated, the market reacts positively, and the reaction increases with more opposing votes. Their third test examines the relation of previous votes on executive incentive compensation plans and abnormal CEO pay. Overall, their findings suggest that the market views Say on Pay as value-creating for companies with inefficient executive compensation and relatively poor governance but value-destroying for other companies.

Balachandran, Joos and Weber (2008) adopt an indirect approach to assess the merits of shareholder votes on executive compensation. They focus on the 1997-2002 period when boards of directors in the U. S. had the choice to submit or not new equity compensation plans to the approval of shareholders and show that firms submitting new plans to their shareholders for approval are typically better performing in the long run and exhibit stronger governance features. They conclude that their results are consistent with control mechanisms, such as shareholder voting, being associated with more efficient equity-based compensation plans. However, a major limitation of their findings is to know which way the causality goes. More specifically, do the firms perform better because of the equity plans that are submitted, or do firms submit new equity plans because they expect to perform better in the future? It is therefore hard to draw a strong conclusion with regard to Say on Pay.

Wagner and Wenk (2010) was the first to empirically analyze the value to shareholders of the ability to have a binding vote on management pay. They studied stock price reactions on and around a Swiss direct democratic initiative proposing detailed rules for an annual binding vote on executive and board compensation had obtained 100,000 signatures (enough to induce a public referendum on an amendment to the Swiss constitution). They find that: (1) the large majority of firms reacted negatively; (2) a substantial reallocation of market value took place from the smallest 80% of the market to the top 20%; and (3) the stock market reaction was most negative for firms with the (relatively) highest-paid executives and boards. Their results differ substantially from what has been observed for the case of advisory Say on Pay votes in the US.

Though there is no cross-country empirical study on Say on Pay, Deane (2007) does summarize the differences. That study, along with Bainbridge (2008) outlined the reasons for opposing Say on Pay. The two studies argue that the current pay practices of most companies are efficient and there is no need for the U.S. government to regulate the process of determining executive compensation. They further argued that the legislation would distract the board and management and reduce authority of the board. Moreover, they suggested that the initiatives would be divisive or driven by special interests.

RESEARCH DESIGN

Cai and Walkling (2011) assessed how investors react to news emanating from the Say on Pay debate and Congressional votes surrounding the evolution of the Say on Pay bill in the U.S. for firms that would likely be affected by the proposed legislation for non-binding votes. Armstrong, Gow, and Larcker (2012) conducted a similar study in Switzerland to analyze the effect of potential legislation for a binding vote. I conduct my analysis for several countries for the final legislative vote using four event windows to estimate the cumulative abnormal return (CAR): (-10, +10), (-5, +5), (-3, +3), and (-1, +1).

I use an estimation period of 250 days period ending 90 days prior to the vote to minimize any potential run-up related to the announcement because the decision for national legislative bodies to vote on enacting Say on Pay is frequently the result of a long-term study of possible alternatives. The chosen window may capture some changes attributable to the process, but a window further removed from the announcement may not accurately reflect the realities of the environment. Potential bias introduced through the choice of the comparison period should be against finding abnormality. To ensure the robustness of my results, I use four models: 1) market; 2) market-adjusted return; 3) mean-adjusted return; and 4) raw return, along with three benchmarks: 1) a country-specific equally-weighted index,³ 2) a country-specific value-weighted index, and 3) the Dow Jones Global Total Stock Market Index.

Since all firms in a country share the same event window, the abnormal returns may be correlated, and the traditional event study methodology may understate the standard error and lead to biased statistical inference. Following Campbell, Lo, MacKinlay (1997), I form portfolios by firm characteristics to diversify away the cross-sectional correlation among the stocks and then test whether the portfolio returns during the event window are significantly different from that during a non-event period. I form portfolios by abnormal compensation, corporate governance, and other firm characteristics and then use the Fama-French four-factor model as the benchmark:

$$R_{p,t} - R_{f,t} = \alpha + \beta_1(R_{m,t} - R_{f,t}) + \beta_2SMB_t + \beta_3HML_t + \beta_4UMD_t + \beta_5Window_t + \varepsilon_t \quad (1)$$

³ Equally weighted portfolio returns better capture the extent of underperformance than value-weighted portfolio returns.

where $R_{p,t}$ is the portfolio return at date t , $R_{f,t}$ is the risk free rate, $R_{m,t}$ is the market return, SMB is the size factor, HML is the book-to-market factor, and UMD is the momentum factor. The dummy variable *Window* equals one for the trading days in the event window and zero for all other dates. The coefficient β_5 is the estimated average daily abnormal return during the event window and its t-statistic provides the statistical significance of the abnormal return. The ability to find significant results in the voting period may be hindered by anticipation of the bill as well as uncertainty about the possibility it will become law. This is unavoidable in the analysis.

I gather data from CRSP, Compustat, Capital IQ, Board Analyst, BoardEx, RiskMetrics Governance and Directors databases, and the Corporate Library in order to form the portfolios by abnormal compensation, corporate governance, and other firm characteristics. Following Cai and Walking (2011), I calculate abnormal CEO compensation as the three year average of residuals from compensation regressions using all Capital IQ companies as the benchmark. Dependent variables of the compensation regressions are the natural log of the three measures of CEO compensation: salary and bonus, equity-based compensation and total compensation (including option grants). I use the natural log of the market value of equity (as a proxy for size), the three year stock return (as a proxy for expected return), the Fama and French (1997) 48 industry classifications, and calendar year dummies as independent variables in the three regressions. I include the return on assets (ROA) as an independent variable in the salary and bonus regression, since bonus is often tied to operating performance, and the book-to-market (BTM) ratio as an independent variable as a proxy for growth firms in the equity-based compensation regression. Both ROA and BTM are included in the total compensation regression.

I sort the firms into portfolios based on their ranking of abnormal CEO compensation (using salary and bonus, equity compensation, or total compensation as appropriate), and then I use the model in equation (1) to estimate the abnormal returns to the portfolios during the event window. If legislation

is beneficial, firms that would benefit the most (i.e., with the highest level of abnormal CEO pay) should experience significantly positive CARs.

Any market reaction to the legislation should be related to the overall pay-for-performance from equity holdings rather than just annual equity compensation. As a result, I also sort the firms based on the CEO's three-year average of portfolio of stock and options. Following Core and Guay (1999), I calculate pay for performance sensitivity as the CEO's wealth change from stock and options for a 1% increase in company stock price.

Because I examine how corporate governance explicitly affects the market reaction to Say on Pay legislation, I opt not control for corporate governance characteristics or CEO entrenchment measures in the compensation regressions but examine their impact directly in subsequent tests. Thus, the compensation variations due to poor internal control and management entrenchment are captured in the abnormal compensation measure (the three year average of residuals from compensation regressions using all firms in the country as the benchmark). Separately, I examine the role of corporate governance and activist shareholders.

Since firm characteristics are likely to influence the value of the legislation to each firm and the likelihood that the firm will take corrective action, I examine several firm-level characteristics that can influence the impact of the legislation and use them to sort the firms. Again, I estimate the abnormal portfolio returns during the event window using the model in equation (1). The governance characteristics that I use include: percent of outside directors appointed by the CEO, percent of busy outside directors, board size, outside directors' stock holdings, a governance index, and an entrenchment index. When comparing mean CARs of portfolios formed based on the relevant characteristics, I use the resulting CAR-variance to draw inference⁴ and to employ an adjustment to the Boehmer, Musumeci, and

⁴ When testing the impact of legislative events on a cross-section of companies, event-time clustering (a common event window for companies) can potentially complicate inference because it implies a violation of the assumption of independence of abnormal returns in the cross-section of analyzed firms (Bernard, 1987). However, even for the basic testing procedure, this problem is typically much attenuated in studies like ours that use very short event windows in connection with daily return data (see, for example, Kothari and Warner (2007)).

Poulsen (1991) test statistic proposed by Kolari and Pynnonen (2010)⁵. By taking into account the average sample cross-correlation of abnormal returns in the test-specific variance, they show that their adjusted test statistic not only stays robust in case of an event-induced variance increase, but also to event-time clustering.⁶

Next, I test the market reaction to the Say on Pay votes in the three years after enactment of the legislation and analyze the long-term abnormal returns of the firms since event studies that measure abnormal returns only around the announcement date do not accurately capture the total value created (destroyed) by these events, according to the under-/over-reaction hypothesis. I use the same process around the shareholder votes on the compensation plans to determine the market reaction as I did with the legislative votes. I measure long-term abnormal returns for the period after passage of the legislation for three years using buy and hold excess returns (BHERs) for several windows (+1, +250), (+251, +500), (+501, +750), and (+1, +750).⁷

Further, I study the volume and volatility effects of the legislation. A growing body of research in accounting and finance examines the reaction of trading volume to new information. The typical volume event study employs a single-index market model borrowed mutatis mutandis from abnormal returns event studies.⁸ Market volume (or log turnover) is used to explain individual security volume (or log turnover), and predicted residuals are used to test for zero mean abnormal volume within a specified

⁵ Both test statistics account for event-time clustering by using scaled cumulative abnormal returns (SCARs), as suggested by Patell (1976). Scaled abnormal returns reduce noise by weighting abnormal returns by the inverse of their standard deviation and hence make it more likely to detect the true statistical significance of the data. The test proposed by Boehmer, Musumeci, and Poulsen (1991) not only takes into account event induced variance changes, but also has better properties vis-a-vis the standard test to deal with event time clustering.

⁶ As with all test-statistics based on SCARs, the authors point out that it is important to only consider SCARs to detect statistical significance of abnormal returns, but to rely on standard CARs for the interpretation of economic effects. Hence, when comparing the difference in reaction between various portfolios, we rely on the measures of basic CARs.

⁷ Because BHERs have a number of methodological issues, I use calendar-time portfolio regressions and abnormal returns, Ibbotson's Return Across Securities (RATS) method, and the Fama-French three and four factor models for robustness.

⁸ Ajinkya and Jain (1989) state that "Although a well-developed economic theory such as CAPM for returns does not seem to exist for trading volume, a number of theoretical papers linking trading volume to information releases can be used to motivate a trading volume market model." Tkac (1999) develops a theoretical model justifying the use of the trading volume market model.

event window. I use daily volume data centered on the event date (legislative vote or shareholder vote) for each firm replacing the return with log-transformed relative volume.

The market response to the legislation announcement is also likely to include an increase in volatility so I investigate this possibility. Bailey, Karolyi and Salva (2006), Fernandes and Ferreira (2008), Gomes, Gorton and Madureira (2006) and Rogers and Van Buskirk (2008), among others, use the absolute of abnormal return or abnormal volume as a volatility-based measure of the information content of an announcement. The increase in the cumulative average abnormal return and cumulative average abnormal volumes prior to the announcement date are common instruments to measure the extent of information leakage prior to the announcement. I use the same indices, benchmarks, estimation options, and event windows that are used to determine the CARs, in order to calculate the average CARVs, CAARs, and ACARVs in the volume and volatility analysis.

Then, I conduct a multivariate regression analysis to explain the abnormal return around the passage of the legislation with the (-1, 1) CAR as the dependent variable for each firm. The independent variables are abnormal CEO compensation and pay for performance in the first set of equations; the governance characteristics in the second set; and the firm characteristics in the third set. Similar to the earlier portfolios, I estimate the CAR for each firm as three times β_5 from the four-factor model in equation (1). This coefficient recognizes the average (one-day) abnormal return over the three days of the event period. Since the abnormal stock returns may be correlated and bias the OLS t-statistics, I use a bootstrap methodology similar to Zhang (2007) to estimate p-value of the regression coefficients. In the third set of multivariate regressions, the variables used include “vote-no” mutual fund holdings, institutional holdings, and the existence of a previous shareholder-initiated proposal for Say on Pay. I control for firm characteristics that may affect cross-sectional stock returns, such as beta, size, BTM, leverage, and industry.

Lastly, for countries that have not legislated Say on Pay but that allow shareholder votes on compensation, I start by examining the level of votes a proposal receives and the level in relation to the

percent of activist shareholders.⁹ If the shareholder initiative succeeds, I repeat all of the firm-specific tests conducted above to evaluate the impact of a shareholder-initiated movement for Say on Pay and the effects of implementing it.

After examination of Say on Pay by individual countries, I compare my results across countries and in groups for those with voluntary adoption vs. legislation; binding or advisory legislation; common vs. civil law; and widely-held vs. concentrated ownership.

RESULTS (So Far Just U.S., Other Countries In Progress)

The U.S. sample consists of 1,270 firms, and its summary statistics are presented in Table II (A). The CEOs have an average salary and bonus of \$1.9 million, while stock option and restricted stock compensation averages another \$3.3 million. The average total compensation is \$5.7 million. Table III (A) presents the univariate analyses of the market reaction to the passage of the legislation in the U.S. If the legislation is useful, firms that would benefit the most (i.e., firms with the highest level of abnormal CEO pay) should experience significantly positive abnormal returns. My findings in the U.S. corroborate this. When pay is measured by abnormal salary plus bonus, the market reacts positively to firms with most highly paid CEOs (a significantly positive 0.54% over the three-day event window) and negatively to firms with the lowest paid CEOs (a negative 0.08%). When the firms are sorted by their CEO pay-for-performance, there is a significantly positive market reaction of 0.53% for the firms in the lowest quintile of pay-for-performance. This suggests that the shareholder votes may lead to more efficient compensation design for these companies and increase firm value.

Table IV (A) presents the relation between the market reaction to the passage of the legislation in the U.S. and a firm's governance using six measures. As in Table III (A), the sample firms are sorted into four portfolios based on these governance variables. Since the governance variables are often discrete, the four portfolios do not always have the same number of firms.

⁹ An activist shareholder is defined as one with a history of supporting similar issues in the past using voting records from Institutional Shareholder Service (ISS), a subsidiary of RiskMetrics.

Panels A through D examine the quality of the board of directors, and Panels E and F relate the market reaction to a firm's level of takeover defenses. For a firm to benefit from improved practices there must be a need for the improvement and a willingness to change. The alignment theory suggests that firms with weak governance are more likely to benefit from the legislation if they are willing to implement better compensation practices. However, firms with the very weakest governance are unlikely to benefit since the proposed shareholder vote is advisory and the entrenched managers are likely to ignore shareholder concerns. Table IV (A) provides support for the alignment theory.

Table V (A) presents the multivariate regressions, which explain the abnormal return around the passage of the legislation. The dependent variable CAR for the (-1, 1) event window, and the independent variables are abnormal CEO compensation, pay for performance, governance, activist mutual fund holdings, institutional holdings, and the existence of a previous shareholder proposal for Say on Pay. I control for firm characteristics that may affect cross-sectional stock returns, such as beta, size, the book-to-market ratio, leverage, and industry dummies. Regression (1) shows that the abnormal CEO compensation has a significant positive effect on the market reaction even after controlling for firm characteristics. Both the OLS t-statistics and the bootstrap p-value are significant at the 5% level.

In Regression (2), I interact a dummy variable of below median pay for performance with abnormal cash compensation and find that the interaction term is significant at the 1% level using OLS t-statistics and at the 5% level with the bootstrap p-value. Consistent with the univariate results, the findings suggest that firms with excessive CEO compensation and poor compensation design will benefit the most from the legislation. Since the univariate tests show that the market reaction is nonlinear in governance, I include both linear and square terms of the governance variables in Regressions (3) and (4). In both, the coefficients of the linear terms are significantly positive and the squared terms are significantly negative. The bootstrap p-value is statistically significant at the 5% level for three of the four coefficients and at the 10% level for the fourth coefficient. This result further confirms the inverse-U shape relation between the market reaction and corporate governance.

Regression (5) shows that higher activist mutual fund holdings lead to a more positive market reaction; the coefficient is statistically significant at the 5% level using both the OLS t-statistics and the bootstrap p-value. In contrast, the stock holdings by non-activist mutual funds have a negative effect on the market reaction, although the coefficient is only significant at the 10% level using the bootstrap p-value and insignificant using the OLS t-statistics. Regression (6) reveals that the abnormal returns increase with the level of institutional holdings but decline with the concentration of institutional holdings, although both coefficients are statistically insignificant. I find a significantly negative correlation of -0.09 between the Herfindahl index of institution holdings and abnormal CEO cash compensation. However, I find no association between the market reaction to the legislation and the Herfindahl index.

The next analysis is for the market reaction to the announcement of shareholder-initiated Say on Pay proposals, where the announcement date is the earlier of the SEC filing date or the proxy mailing date. The results are presented in Table VI (A). Panel A of shows that the on average these firms suffer a negative abnormal return of -0.71% when the proposals are announced, which is statistically significant at the 10% level. Panel B reports that when the proposal is submitted by a labor union, the market reaction is significantly more negative. Table VII (A) presents the market reaction by voting outcome. Panel A shows that the proposals on average do not receive majority shareholder backing. On average, less than 30% of all outstanding shares support the proposals. Panel B further shows that when these proposals are voted down by the shareholders, the average abnormal return is a positive 0.8%, which is statistically significant at the 5% level. Panel C shows that the market reaction is negatively related to the votes for say-on-pay proposal and the coefficients are statistically significant at the 5% level for all three measures of votes.

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TABLE I Countries by Type of Say on Pay

	Binding Remuneration Policy Resolution	Advisory Remuneration Policy Resolution	Approval of Incentive Plans	Other approvals*
Requirement	Italy (Banks only) Netherlands (Policy change) Norway Sweden	Australia Belgium (2012) Germany Italy (2012) South Africa Spain United Kingdom United States	Australia Austria Denmark Ireland Italy Japan Spain Sweden United Kingdom United States	Australia Austria Australia Austria Belgium France Ireland Japan Sweden United Kingdom United States
Voluntary Adoption By Issuers		Belgium (2011) Canada Ireland Switzerland		
<p><i>*Other approvals include approval of severance arrangements, non-compete clauses, pension agreements, grants of options to individuals plus approval of capital authorisations required to meet the obligations under share-based incentive plans.</i></p>				

TABLE II (A) U.S. Summary Statistics

Variable	N	Mean	Median	Std Dev	Minimum	Maximum
<i>Compensation</i>						
CEO salary & bonus (\$000)	1,270	1,868	1,364	3,085	0	91,818
CEO equity-based compensation (\$000)	1,270	3,272	1,763	4,810	0	53,978
CEO total compensation (\$000)	1,270	5,658	3,579	6,723	0	91,818
Pay for Performance (\$000)	1,270	1,593	360	13,185	0	428,277
Abnormal CEO salary & bonus	1,270	-0.008	0.047	0.758	-7.820	2.370
Abnormal CEO equity-based compensation	1,270	0.027	0.775	2.248	-9.570	4.181
Abnormal CEO total compensation	1,270	-0.001	0.033	0.686	-8.404	2.154
<i>Governance measures</i>						
Governance Index	1,270	9.34	9.00	2.51	2.00	17.00
Entrenchment Index	1,270	1.52	2.00	1.10	0.00	5.00
Fraction of outside directors appointed by CEO	1,270	0.42	0.40	0.36	0.00	1.00
Fraction of busy outside directors	1,270	0.25	0.22	0.22	0.00	1.00
Board Size	1,270	9.39	9.00	2.49	1.00	24.00
Outside director stock holdings (%)	1,270	1.17	0.30	3.85	0.00	59.06
<i>Shareholdings</i>						
Activist mutual fund holdings (%)	1,270	13.45	12.23	6.00	1.21	41.12
Non-Activist mutual fund holdings (%)	1,270	8.72	7.96	5.41	0.00	35.91
Institutional Holdings (%)	1,091	76.78	79.34	15.22	6.87	99.99
Herfindahl index of institutional holdings (%)	1,091	4.70	4.02	3.16	1.41	51.16
<i>Firm Characteristics</i>						
Beta	1,270	1.22	1.17	0.50	0.01	3.14
Total Assets (\$000,000)	1,270	21,172	2,451	108,939	53	1,884,318
Book-to-Market ratio of equity	1,270	0.45	0.42	0.37	-6.09	6.16
Leverage	1,269	0.22	0.20	0.18	0.00	1.60

TABLE III (A) U.S. Market Reaction by Abnormal CEO Compensation

Abnormal CEO salary and Bonus Ranking	Number of Firms	Abnormal Compensation (\$million)	CAR (%)	T-statistics
1 Lowest	317	-0.555	-0.078	-0.33
2	318	-0.034	0.387	1.65
3	318	0.352	0.141	0.67
4 Highest	317	2.035	0.540	1.97**
Difference (4-1)			0.618	2.20**

Pay for performance Ranking	Number of Firms	Pay for performance (\$million)	CAR (%)	T-statistics
1 Lowest	317	0.072	0.528	1.99**
2	318	0.235	0.069	0.28
3	318	0.559	0.303	1.16
4 Highest	317	5.514	0.092	0.37
Difference (4-1)			-0.435	-1.31

TABLE IV (A) U.S. Market Reaction by Corporate Governance Characteristics

<i>Panel A: Market reaction to Say-on-Pay Bill by percent of outside directors appointed by CEO</i>				
	Number of Firms	Mean Percent of outside directors appointed by CEO	Portfolio CAR (%)	T-statistics
1 Lowest	336	0.0%	0.026	0.10
2	298	23.4%	0.272	1.28
3	317	54.5%	0.489	2.06**
4 Highest	319	91.7%	0.219	0.90

<i>Panel B: Market reaction to Say-on-Pay Bill by Percent of busy outside directors</i>				
	Number of Firms	Mean Percent of busy outside directors	Portfolio CAR (%)	T-statistics
1 Lowest	354	0.0%	-0.075	-0.31
2	272	15.9%	0.281	1.07
3	326	29.2%	0.573	2.67***
4 Highest	318	54.4%	0.243	1.03

<i>Panel C: Market reaction to Say-on-Pay Bill by Board Size</i>				
	Number of Firms	Mean Board Size	Portfolio CAR (%)	T-statistics
1 Lowest	299	6.4	0.161	0.55
2	175	8.0	0.197	0.64
3	419	9.4	0.483	1.96**
4 Highest	377	12.3	0.080	0.33

Panel D: Market reaction to Say-on-Pay Bill by Outside directors stock holdings

	Number of Firms	Mean outside director stock holdings	Portfolio CAR (%)	T-statistics
1 Highest	317	3.96%	0.077	0.29
2	318	0.50%	0.179	0.78
3	318	0.19%	0.438	1.75⁺
4 Lowest	317	0.05%	0.295	1.38

Panel E: Market reaction to Say-on-Pay Bill by Governance Index

	Number of Firms	Mean Governance Index	Portfolio CAR (%)	T-statistics
1 Lowest	295	6.07	0.090	0.34
2	396	8.53	0.147	0.64
3	331	10.50	0.423	1.78⁺
4 Highest	248	12.96	0.363	1.38

Panel F: Market reaction to Say-on-Pay Bill by Entrenchment Index

	Number of Firms	Mean Entrenchment Index	Portfolio CAR (%)	T-statistics
1 Lowest	266	0.0	-0.120	-0.44
2	368	1.0	0.348	1.49
3	383	2.0	0.477	2.25^{**}
4 Highest	253	3.2	0.143	0.56

TABLE V (A) U.S. Multivariate Regressions

Independent variables and Statistics	Dependent variable = CAR over April 19- April 23 2007					
	(OLS t-statistics)					
	[Bootstrap p-value]					
	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	2.67 (3.23) ^{***} [0.017] ^{**}	2.84 (3.43) ^{***} [0.017] ^{**}	2.31 (2.68) ^{***} [0.045] ^{**}	0.35 (0.25) [0.473]	2.15 (2.43) ^{**} [0.058] [*]	2.69 (2.52) ^{**} [0.049] ^{**}
Abnormal CEO Salary & Bonus	0.28 (2.50) ^{**} [0.044] ^{**}	0.07 (0.49) [0.257]	0.27 (2.41) ^{**} [0.048] ^{**}	0.26 (2.26) ^{**} [0.062] [*]	0.27 (2.40) ^{**} [0.049] ^{**}	0.30 (2.57) ^{**} [0.031] ^{**}
Abnormal CEO Salary & Bonus Low Pay-for- performance Dummy		0.73 (2.94) ^{***} [0.013] ^{**}				
Entrenchment index			0.43 (1.90) [*] [0.023] ^{**}			
Square of (Entrenchment Index)			-0.12 (-1.91) [*] [0.031] ^{**}			
Board index				0.49 (2.08) ^{**} [0.038] ^{**}		
Square of (Board index)				-0.02 (-1.78) [*] [0.067] [*]		
Stock holdings by activist mutual funds					3.13 (1.96) ^{**} [0.041] ^{**}	

Stock holdings by non-activist mutual funds					-2.52 (-1.52) [0.065]*	
Institutional holdings						0.04 (0.06) [0.470]
Herfindahl Index of Intuitional Holdings						-0.03 (-0.01) [0.487]
Dummy for receiving a shareholder proposal prior to the Bill.	-0.74 (-1.34) [0.100]*	-0.71 (-1.28) [0.110]	-0.70 (-1.27) [0.114]	-0.69 (-1.24) [0.119]	-0.79 (-1.42) [0.092]*	-0.74 (-1.35) [0.101]
beta	-0.29 (-1.27) [0.284]	-0.31 (-1.40) [0.270]	-0.27 (-1.20) [0.301]	-0.25 (-1.11) [0.320]	-0.35 (-1.54) [0.240]	-0.31 (-1.31) [0.273]
Log Assets	-0.07 (-0.99) [0.285]	-0.08 (-1.27) [0.242]	-0.05 (-0.78) [0.330]	-0.12 (-1.47) [0.167]	-0.01 (-0.15) [0.500]	-0.05 (-0.69) [0.367]
Book-to-Market	-1.39 (-5.71) ^{***} [0.013]**	-1.36 (-5.63) ^{***} [0.013]**	-1.38 (-5.70) ^{***} [0.013]**	-1.37 (-5.66) ^{***} [0.013]**	-1.47 (-6.00) ^{***} [0.013]**	-1.41 (-5.61) ^{***} [0.013]**
Leverage	0.96 (1.76)* [0.085]*	0.94 (1.72)* [0.090]*	0.96 (1.76)* [0.090]*	0.92 (1.68)* [0.105]	0.93 (1.69)* [0.095]	1.19 (1.97)** [0.079]*
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
N	1,269	1,269	1,269	1,269	1,269	1,090
OLS Adjusted R ²	0.094	0.100	0.096	0.098	0.098	0.108

TABLE VI (A) U.S. Market Reaction to Shareholder-Initiated Say on Pay Votes

Panel A: Market reaction to the announcement of shareholder-sponsored say-on-pay proposals

Announcement	N	Mean	t-stat	Median	% positive
CAR (%)	49	-0.71	-1.71*	-0.18	44.9%

Panel B: Multivariate regressions

Independent variable and statistics	Dependent variable = Announcement CAR of shareholder- sponsored say-on-pay proposals (%)	
	(1)	(2)
Intercept	-0.027 (-0.05)	0.442 (0.63)
Dummy for labor union proponent	-1.40 (-1.71)*	-1.80 (-2.07)**
Abnormal CEO cash compensation		0.44 (1.82)*
Dummy for proponent disclose share holdings		-0.07 (-0.08)
Dummy for proponent disclose share holdings *Proponent share holdings		-0.35 (-1.68)*
N	49	49
Adjusted R ²	0.039	0.093

Panel C: Market reaction to the Say-on-Pay Bill

		Portfolio of Firms that received a say-on-pay shareholder proposal by 4/20/2007 (1)	Portfolio of Firms that did NOT receive a say- on-pay shareholder proposal by 4/20/2007 (2)	Difference (1) – (2)
	N	36	1234	
CAR (%)	Mean	-0.66	0.27	-0.94
	t-stat	-1.59	1.49	-2.22**

TABLE VII (A) U.S. Shareholder-Initiated Say on Pay Voting Outcomes and Market Reaction*Panel A: Distribution of Votes for say-on-pay shareholder proposals*

	N	Mean	Minimum	Median	Maximum
For / (For + Against) (%)	49	41.4	18.4	41.3	69.6
For / (For + Against + Abstain) (%)	49	38.9	17.6	38.9	66.6
For / Outstanding shares (%)	49	28.9	14.7	29.2	54.6

Panel B: Market reaction to the voting outcome of say-on-pay shareholder proposals

	N	Mean	t-stat	Median	% positive
Voting day CAR (%)	49	0.80	2.30**	0.14	51.0%

Panel C: Multivariate regressions

Independent variable and statistics	Dependent variable = Voting day CAR (%)		
	(1)	(2)	(3)
Intercept	5.48 (2.03)**	6.06 (2.18)**	6.14 (2.38)**
For / (For + Against)	-0.085 (-1.96)**		
For / (For + Against + Abstain)		-0.099 (-2.11)**	
For / Outstanding shares			-0.137 (-2.34)**
Defeat Dummy	-1.35 (-1.01)	-1.61 (-1.18)	-1.59 (-1.22)
Defeat Dummy * Abnormal CEO Cash compensation	-0.43 (-2.12)**	-0.42 (-2.11)**	-0.39 (-1.95)*
N	49	49	49
Adjusted R ²	0.093	0.105	0.122