WHAT IS THE IMPACT OF SAY ON PAY ON EXECUTIVE COMPENSATION?
A META-ANALYSIS OF THE EMPIRICAL EVIDENCE

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Abstract
For the last two decades there has been quite a bit of debate about whether executives receive excessive compensation and if so, how to control it. A number of countries have instituted some type of Say on Pay rules, affording shareholders the right to vote on executive compensation. We review the literature and conduct a meta-analysis on the relationship between Say on Pay and executive compensation, comprising prior tests derived from 23 primary studies. Existing research has been inconclusive, since some prior studies find no change in the level of CEO pay around the adoption of Say on Pay in the U.S. and the U.K. (e.g., see Ferri & Maber (2013) for the U.K. and Iliev & Vitanova (2013) for the U.S.), whereas other studies provide strong evidence that Say on Pay is associated with lower CEO pay. (e.g., see Correa & Lel (2013)). We find that Say on Pay does not reduce executive compensation; however it does change the composition of the compensation. In our judgment, the results are inconsistent with the public interest theory of regulation, which posits that regulation is implemented to improve some public good (reduce executive compensation). The results of this meta-analysis are a function, however, of the underlying studies, and more work needs to be done to measure the impact of Say on Pay adequately.

Keywords: Executive compensation; Say on Pay; Compensation Regulation; Shareholder Activism; Shareholder Voting; Shareholder Proposals; corporate governance.

We wish to thank Ann Medinets, Yi Zhou, Li Zhang, Udi Hoitash, Mary Ellen Carter, Valentina Zamora, Marinilka Kimbro, Danielle Xu, Natasha Burns, Kristina Minnick, Fabrizio Ferri, Betsey Gordon, and participants at the Multinational Finance Society and American Accounting Association annual meetings for helpful comments.
I. INTRODUCTION

The Global Financial Crisis of 2008 (Crisis) resulted in the threat of the total collapse of systemically important financial institutions\(^1\), the bailout of banks by national governments, the failure of key businesses, and the downturn in stock markets around the world. It also played a significant role in a decline in consumer wealth estimated in the trillions of dollars, a dip in economic activity leading to the Global Recession, and a sovereign-debt crisis in Europe.

Various initiatives tried to identify the root causes of the worst financial crisis since the Great Depression. Although multiple factors played a role, many analysts, politicians, journalists, and economists consistently raised the issues of inappropriate incentives in the compensation structure of the financial sector and the failure of corporate governance mechanisms as the primary reasons. In many countries, regulators had expected that companies would be able to control the risks associated with compensation design and tackle excessive bonuses themselves through the sufficient application of corporate governance measures.

Convinced that self-regulation would no longer work, national governments considered regulations to diminish the potential for compensation structures that encouraged the excessive risk-taking that contributed to the Crisis and pushed for shareholders to engage actively in corporate governance. Numerous regulatory bodies and stock exchanges either considered or enacted changes in disclosure or voting procedures for executive compensation, while several countries, such as the U.S. and Switzerland, mandated that shareholders vote on executive compensation. Other countries, including Germany and France, are considering passing similar

\(^1\) Financial Stability Board (November 2011). "List of Systemically Important Financial Institutions"
legislation.\textsuperscript{2} This movement, called Say on Pay, is attracting increased attention from researchers who are trying to determine whether it has been effective at correcting excessive compensation.

There is a growing body of literature on Say on Pay in the economics, finance, accounting, and management fields; however the empirical results are limited and mostly analyze the effects in a single country environment (the U.K.). Many have questioned whether Say on Pay has actually been effective, but the empirical evidence is inconclusive, which limits theory development in this field. We conduct a meta-analysis of the published and unpublished archival studies that test the relationship between Say on Pay and executive compensation to reconcile the conflicting findings and to generate new research questions on the topic. Our analysis is based on the public interest theory of regulation, and we assume that Say on Pay will reduce executive compensation.

The motivation of our paper is twofold. First, we want to obtain a robust estimate of the research undertaken on the association between Say on Pay and the level of executive compensation, and second, we want to find associations or relationships which are not obvious from other ways of summarizing research, such as narrative approaches, by analyzing variables which may intervene in explaining heterogeneous results. We chose to conduct a meta-analysis because it is a quantitative literature review that synthesizes existing research and contributes to making sense of previous research in order that the research may become more useful to practitioners and policymakers. Given the push by legislative and governance bodies worldwide towards the enactment of forms of Say on Pay, we felt it an appropriate time to synthesize the previous research findings.

\textsuperscript{2} Barker, Alex and Peter Spiegel, EU to push for binding investor pay votes, \textit{The Financial Times}, May 15, 2012
Meta-analysis provides a powerful analytical tool to estimate the magnitude of the relationships among the variables of interest in a more systematic and rigorous approach than could be possible in a typical literature review with greater statistical power, more confirmatory data analysis, and increased ability to extrapolate to the general population. Data on aggregate findings and collective research practice can offer insights into new research questions or adjustments to practice that can advance our understanding.

We contribute to the literature with a comprehensive meta-analytic synthesis of the Say on Pay literature, and we combine multiple single-country studies into a single multi-country study, so that we are able to make comparisons and assessments of the various types of Say on Pay, regardless of geographic borders. We find that Say on Pay does not change the level of executive compensation; however it does change the composition, with an increased use of performance-based compensation. This contributes to the current global debate by regulators on the need for Say on Pay as another corporate governance mechanism that can reduce the levels of executive compensation.

Section 2 discusses the background information on Say on Pay, and section 3 outlines the theoretical basis for the study and develops our empirical predictions. Section 4 reviews the related literature, and section 5 outlines the research methods used in the analysis. Section 6 presents our empirical results, followed by some concluding remarks in Section 7.

II. BACKGROUND INFORMATION

Say on Pay is the right of shareholders to vote on the compensation of the firm’s executives. Its goals are to spur shareholder participation in corporate governance, to protect the shareholders’ rights to the residual income of the firm, to rein in excessive executive compensation, and to help reduce executives’ incentives to chase short-term profits.
According to Burns and Minnick (2011), proponents of Say on Pay argue that giving shareholders a vote on executive compensation can empower Boards in their compensation negotiations with CEOs, potentially increasing accountability, linking firm performance to pay more strongly, reducing pay levels, and improving executive compensation disclosure.\(^3\) Bebchuk (2007) posits that shareholder disagreement on pay packages expressed through Say on Pay votes might act as a constraint, resulting in more efficient bargaining between executives and Boards. This is similar to Jensen and Murphy’s (1990) argument that informal political constraints truncate the upper tail of executive compensation.

Say on Pay can provide an opportunity for shareholders to impose reputational consequences on directors by drawing public attention to their decisions involving executive compensation. For instance, Johnson, Porter, and Shackell (1997) find that negative media coverage of a firm’s executive pay results in pay increases that are smaller in subsequent years and in increases in pay-for-performance sensitivity.

Advocates also argue that Say on Pay can reduce the significant influence that CEOs have over Boards and their own compensation.\(^4\) The existence of the shareholder vote may make it easier for Boards to overcome social-psychological barriers in negotiating with CEOs on behalf of shareholders.\(^5\) Ferri and Maber (2011) suggest that “in order for Say on Pay votes to affect compensation practices, incentives must be attached to the threat or the realization of an adverse voting outcome. These incentives are likely implicit/reputational. By reducing the cost of aggregating and disseminating information regarding shareholders’ discontent, Say on Pay may provide shareholders with an important bargaining lever – the threat of negative public opinion.”

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\(^3\) Bebchuk, Friedman, and Friedman (2007); Davis (2007)
\(^4\) Shivdasani and Yermack (1999); Core, Holthausen, and Larcker (1999); Bebchuk (2003); Hartzell and Starks (2003); Coles, Daniel, and Naveen (2007); Cai, Garner, and Walkling (2009)
\(^5\) Bebchuk and Fried (2004)
Opponents of Say on Pay argue that it could lead to value-destroying sub-optimal pay practices; that it does not effectively monitor compensation; and that it is intrusive and could undermine the Board. It could also have no effect because market forces are sufficient to monitor compensation effectively, or it could cause unintended consequences such as increasing executive compensation. On the other hand, anecdotal evidence from the U.K. suggests that a key effect of Say on Pay is the enhanced communication between the compensation committees of Boards and shareholders, as well as greater resources devoted by investors to the analysis of compensation plans (Deloitte 2004). Such enhanced communication may lead to informed voting decisions and to the adoption of superior pay practices supported by shareholders.

Say on Pay can be implemented in two forms: by shareholder proposal (shareholder-initiated) or by regulation, with the government mandating that firms adopt Say on Pay and specifying its terms. In the shareholder proposal mode, two stages are necessary to implement Say on Pay. First, a proposal is submitted by a shareholder for consideration in order to establish periodic votes on the executive pay plan proposed by the Board. Shareholders vote on the proposal, and it will pass or fail depending on the requirements for a formal pass as defined in the corporate charter. If it passes, the firm would be required to hold periodic votes to accept or reject the executive compensation package proposed by the Board.

In the regulatory mode, governments pass legislation mandating that firms adopt Say on Pay. There is significant regulatory variation across countries. The votes may be binding or advisory; can apply to compensation packages, incentive plans, or other components; may be

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6 Kaplan (2007); Bainbridge (2008); Gordon (2009); Larcker, Ormazabal, and Taylor (2011); Bainbridge (2011); Larcker and Tayan (2012a)
7 Perry and Zenner (2001); Schmidt (2012)
8 Such as severance arrangements, non-compete clauses, pension agreements, and grants of options to individuals plus approval of capital authorizations required to meet the obligations under share-based incentive plans.
comply-or-explain guidelines or rules; may be taken annually or not; may be forward looking at the compensation to be set in the future or retrospective, examining compensation as executed in the past; may cover compensation policy, a compensation report, compensation of individual executives/directors, or specific elements of the compensation package, such as share-based compensation; and may be a separate vote on compensation or a vote on compensation as a part of the annual report as a whole.

If the shareholders reject the plan in a legislated environment, the provisions of the legislation determine the follow-up action to be taken by the Board. For example, in a binding vote regime, Boards are not allowed to move forward with the proposed pay plan if the vote fails, however in an advisory vote environment, the board can proceed in the way it chooses. In addition, Boards could choose to become more proactive when structuring executive compensation and consult directly with shareholders before even putting the package to a vote. They may have an incentive to engage in such direct negotiations because negative press coverage could damage the firm’s reputation. In fact, Boards may use Say on Pay as a form of leverage when negotiating with executives, who can pressure the Board to implement sub-optimal pay plans (Davis, 2007). The shareholders’ voice via Say on Pay may even increase the Board’s legitimacy when justifying its decisions to executives.

The U.K. introduced the Directors’ Remuneration Report regulations in 2002 and mandated that listed firms submit an annual compensation report to an advisory vote at the Annual General Meeting (AGM). This was the first legislated Say on Pay. After the Crisis, the U.S. introduced a similar regulation as a part of the Dodd-Frank Act in 2010, changing its previous system of shareholder-initiated Say on Pay to a legislative mandate. Several other countries require Say on Pay votes: Australia (2004), the Netherlands (2004), Sweden (2006),
Norway (2007), Denmark (2007), Portugal (2009), South Africa (2011), Spain (2011), Belgium (2012), and Italy (2012). In addition, firms in Germany, Switzerland, France, Canada, and Ireland can adopt shareholder proposals regarding Say on Pay.

In late 2012, the Israeli Knesset passed an amendment to the Companies Law that would compel companies to put their executive compensation policies up for shareholder vote every three years starting in 2013, and in 2013, Swiss voters amended its Constitution with the Minder Initiative to mandate Say on Pay starting in 2014. A 2010 report by the European Commission (EC) identified a total of 19 (out of 27) member states of the European Union (EU) that have introduced either mandatory legal provisions or recommendations in local corporate governance codes requiring Say on Pay. Many that chose the governance code route require an advisory vote on compensation policy and a binding vote on equity-based incentive schemes. Following are the countries with Say on Pay, grouped by type:

**Insert Table I <Countries with Say on Pay>**

There are notable country-specific differences related to firm size, industry focus, shareholder base, legal system, shareholder/creditor protection, market/banking orientation, ownership concentration, individual wealth, and level of diffusion of the press and labor markets. As a result, the tenets of Say on Pay vary across countries due to political, institutional, cultural/religious, geographical, economic, capital account liberalization, and social factors that have shaped local governance and compensation practices within a single country environment and within various groups of countries. Most countries have advisory votes, however Denmark, Norway, and Sweden have binding votes. In the Netherlands, the votes are binding but only for new compensation policies or changes to existing policies. The frequency of votes varies in some
countries, but in Australia, Norway, and Sweden the vote is mandated on an annual basis, whereas U.S. shareholders get to choose the frequency of the vote.

Germany and Spain have announced binding Say on Pay initiatives; France is considering whether to mandate binding or advisory votes; the U.K. is expected to convert to binding votes by October 2013; and several other countries have put pressure on companies to grant advisory votes but have stopped short of passing legislation. Furthermore, a bill could be introduced by the EU mandating that all listed companies across the member states implement Say on Pay, in contrast to the present recommendation that EU countries adopt Say on Pay.

According to Thomas and Van der Elst (2013), the overall effects of Say on Pay are hard to summarize because they vary across countries, however, several general statements can be extracted from the extant literature. Shareholders overwhelmingly vote to approve the pay levels, composition, and policies. Proxy advisory firms are a critical part of the voting process, informing investors about firm’s executive compensation and whether they are deemed “excessive,”\(^9\) along with recommendations to vote for or against the company’s compensation plan. Say on Pay may have slowed the rate of growth of executive pay overall, but its strongest effects have been felt at companies that exhibit poor performance with relatively high levels of pay. Finally, Boards have responded to low levels of shareholder support by contacting their investors to explain their policies more clearly, thereby shifting the corporate governance dynamic around executive pay and giving shareholders greater input into its determination.

The Say on Pay movement is only going to gain steam as more countries adopt it over time; other countries convert from advisory votes to binding votes, as the U.K. did, or stiffen the

\(^9\) There is no standard definition, however the Corporate Library defines “excessive” as compensation that is 20% above the mean wage for the average CEO salary.
consequences to firms for Boards’ failure to respond to high levels of shareholder dissent in a Say on Pay vote, such as Australia which implemented its Two Strikes Rule.

III. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

Regulation follows two distinct models: the public interest theory or the special interest theory (Mulherin 2007). It may be enacted in response to a market failure (public interest theory) where it is implemented to improve public good, or in response to various political support groups (special interest theory). The public interest theory is the traditional model (Pigou, 1938), however the alternative comes from the observation that many regulations appear aimed at producer protection, rather than consumer protection (Stigler, 1971).

The predicted effects of a new regulation or regulatory change will be fashioned by one's underlying viewpoint. We adopt the view that Say on Pay follows the public interest theory of regulation because it has primarily been enacted in response to market failure in order to improve public good. The theory is based on two assumptions: 1) unhindered markets often fail and 2) governments are benign and capable of correcting the failures through regulation. Governments often mandate Say on Pay to correct excessive executive compensation.

If compensation contracts are frequently determined under sub-optimal bargaining conditions and, as a result, do not reflect shareholders’ best interests (e.g., Jensen and Murphy, 1990; Bebchuk and Fried, 2004), then Say on Pay should alter those conditions in a way that is conducive to “arms-length” bargaining, resulting in more efficient contracting (Bebchuk, 2007). There are also two important considerations for how much a firm benefits from Say on Pay:
firms with excessive or ineffective executive compensation are more likely to benefit, and firms with shareholders willing to vote against management are more likely to see change.\(^\text{10}\)

Allowing shareholders to have a say in executive pay may help reduce the agency costs between executives, directors, and shareholders, result in more efficient compensation contracts, and add value to the firm. Deane (2007) and Davis (2007) use the alignment hypothesis to suggest that Say on Pay will better align owner-manager interests and improve governance and performance. If Say on Pay restores the alignment of the owners and managers, then there should be a positive market reaction to it.

Using a meta-analysis, we examine the empirical evidence in support of the public interest theory that Say on Pay will reduce executive compensation by formulating and analyzing the following propositions related to the firm response to Say on Pay:

\begin{quote}
Proposition 1: Compensation levels decrease or at least increase at a declining rate.
\end{quote}

\begin{quote}
Proposition 2: There is an increase in the sensitivity of compensation to performance.
\end{quote}

IV. LITERATURE REVIEW

The origins of Say on Pay are in of the proxy rules of the U.S. In 1992, the Securities and Exchange Commission (SEC) expanded the scope of allowable topics for shareholder proxy proposals to include executive compensation issues. A number of papers have examined the effects of this shareholder-initiated Say on Pay on executive compensation, such as Johnson and Shackell-Dowell (1997), Johnson, Porter, and Shackell-Dowell (1997), and Perry and Zenner (2001). They find that firms receiving proposals aimed at changing executive compensation do not subsequently change their CEO's compensation. Woods (1996), however, reports a slight

\(\text{10} \) The composition of the shareholder base may influence shareholders’ willingness to vote against management. Prior research documents that institutions are less apt to vote with management on governance proposals than individual investors are (Gordon and Pound, 1993).
increase in target CEOs’ cash compensation, with no decrease in the value of options granted, following shareholder pressure; and Thomas and Martin (1999) find that target companies increased executive compensation levels at sharply lower rates than firms that did not receive these proposals in the one- and two-year time periods after the shareholder vote on the proposal.

More recently, Subramaniam and Wang (2009) find that firms are more likely to receive shareholder-sponsored, performance-oriented executive pay proposals when they have higher agency costs, stronger shareholder rights, or high executive compensation coupled with poor performance. They also find that subsequent to the proposals, CEO compensation shifts towards more equity. Ertimur, Ferri, and Muslu (2009) observe that shareholders tend to target firms with abnormally high CEO pay with shareholder-initiated Say on Pay proposals; the adoption is very low unless the proposals received the majority of shareholder votes; and that the proposals are associated with a $2.3 million reduction in CEO pay, but only when proxy proposals are initiated by institutional investors. Similarly, Burns and Minnick (2013) observe that firms with high CEO compensation are most likely to receive a proposal but that compensation does not significantly change after the proposal, although the mix of compensation does change.

In 2003, the SEC issued new rules requiring NYSE and NASDAQ firms to hold shareholder votes before adopting new equity compensation plans or materially amending the existing plans. Ng, Sibilkov, Wang, and Zaiats (2010) determine that following the regulation, the quality of equity compensation proposals improves, shareholders exhibit greater scrutiny and monitoring of executive compensation through increased voting rights, and the equity pay component of total executive compensation declines while the cash component increases. Armstrong, Gow, and Larcker (2012) examine the effects of shareholder support for equity compensation plans on subsequent CEO compensation and find that shareholders are more likely
to vote against executive pay plans that are excessive. They find no relationship between shareholder voting on compensation proposals and subsequent changes in CEO compensation.

Balachandran, Joos, and Weber (2012) study the relationship between shareholders' approval of equity-based compensation plans and the firm's future financial performance with a focus on the efficiency of shareholder voting as a control mechanism in publicly traded corporations during the 1992-2003 period when Boards in the U.S. had the choice of whether to submit new equity compensation plans to the approval of shareholders. They show that firms submitting new plans for approval typically perform better in the long run and exhibit stronger governance features.

Several studies examine shareholder voting for management-sponsored compensation plans. Morgan and Poulsen (2001), Bethel and Gillan (2002), and Thomas and Martin (2000) find that management-sponsored pay-for-performance proposals are generally approved. Martin and Thomas (2005) re-examine the topic and find that plans with large amounts of dilution (whether proposal dilution or total dilution) result in negative stock price reactions; they also find a negative relationship between the percentage of votes against a proposal and the percentage change of the level of the CEO’s pay for the next year.

Morgan, Poulsen, and Wolf (2006) find evidence that shareholders provide less support for management-sponsored plans that are more dilutive and plans that receive negative recommendations from a proxy advisor. Morgan and Wolf (2006) extend their research to the Canadian market and find many similarities between voting at the Canadian and U.S. firms. However, they show very few majority approved proposals and a much lower overall level of affirmative voting returns in Canada compared to U.S. firms.
The U.K. introduced the Directors' Remuneration Report in 2002, requiring listed firms to put their compensation report to a non-binding shareholder vote at the Annual General Meeting of the firm. This was the first enacted legislation that explicitly called for Say on Pay. There is a growing literature dedicated to Say on Pay in the U.K. Ferri, Balachandran, and Maber (2008) find that it increases the sensitivity of CEO pay to poor accounting performance, but not to stock performance; that is, it curbed the “pay for failure” scenario. Carter and Zamora (2009) find that shareholders disapprove of higher salaries, weak pay-for-performance sensitivity in bonus pay, and greater potential dilution from equity pay. They also observe that Boards respond to past negative votes by reducing excess salary and dilution of stock option grants, and by improving pay for performance links.

Ferri and Maber (2013) show no evidence of a change in the level or growth rate of CEO pay after the adoption of the Say on Pay regulations. They did, however, 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. Alissa (2009) finds that shareholders use their vote to convey dissatisfaction with excessive executive compensation, and Boards respond by reducing the excessiveness of CEO compensation for firms whose CEOs have above average excess compensation or by forcing the CEO out. Conyon and Sadler (2010) treat shareholder voting as an endogenous choice variable in their CEO pay equations and find that shareholders’ votes reflect their disapproval of higher salaries, higher excess bonuses, and greater dilution in stock-based compensation. In addition, they find no evidence of the Board responding to greater shareholder disapproval.
On March 1, 2007, Congressman Barney Frank, then Chairman of the U.S. House of Representatives’ Financial Services Committee, sponsored H.R. 1257, the Shareholder Vote on Executive Compensation Act, which would have amended the Securities Exchange Act of 1934 to require companies to conduct a non-binding advisory shareholder vote on executive compensation plans. The bill was passed by the House on April 20, 2007 and introduced into the Senate by then Senator Obama; however it was never put to a vote. Cai and Walkling (2011) perform three experiments after passage of the bill in the House and find that the market reaction was positive significant for firms with high abnormal CEO compensation, low pay-for-performance sensitivity, and receptivity to shareholder pressure. They also find that shareholder-initiated compensation proposals target large firms, not those with excessive CEO pay, poor governance, or poor performance; and the market reacts negatively to the proposal announcements and positively when the proposals are defeated, suggesting that Say on Pay creates value for companies with inefficient compensation, but destroys value for others.

Larcker, Ormazabal, and Taylor (2011) examine the market reaction to several key dates when Say on Pay legislation was proposed in the U.S., including the Shareholder Vote on Executive Compensation Act, the Corporate Executive Compensation Accountability and Transparency Act, the Shareholder Bill of Rights Act, and the Shareholder Empowerment Act. The market reaction is negative significant, and the evidence suggests that shareholders react increasingly negative for firms with highly paid CEOs. One possible explanation for this result is that the market perceives that the regulation of executive compensation will ultimately result in less desirable contracts and potentially decreases the supply of high-quality executives to public firms. This suggests that the market perceives current pay practices to be value-maximizing.
In 2010, Say on Pay was formally enacted in the U.S. as a component of the Dodd-Frank Wall Street Reform and Consumer Protection Act. Balsam and Yin (2012) document that firms reduce executive compensation in advance of the mandated Say on Pay vote and make it more performance-based, with that decrease being greater for firms that previously overpaid their CEOs. They also find the percentage of votes cast against executive pay is lower when the firm reduced executive compensation in advance of the initial Say on Pay vote, but higher when the firm pays higher total compensation, has a large increase in compensation, has a larger amount of compensation that cannot be explained by economic factors, or has a higher amount of “other compensation,” a category that includes perquisites.

Cotter, Palmiter, Thomas (2013) find that shareholders generally give broad support to management pay packages unless the company is poorly performing with high levels of “excess” executive pay, has low total shareholder return, and has negative proxy voting recommendations. Similarly, Kimmey (2013) finds that higher CEO salary, a weak link between pay and performance, and higher dilution from stock option grants are associated with lower Say on Pay approval; and shareholders show sophistication in their examination of CEO compensation by voting against excess compensation over what is deserved due to performance and other determining factors.

Kimbro and Xu (2013) show that Say on Pay votes are sensitive to firm risk, excessive CEO compensation, accounting quality, and financial performance; that Boards react to Say on Pay rejection votes by subsequently reducing the level of excessive compensation; and that shareholder voting rights, even when non-binding, could be an effective corporate governance mechanism that addresses management rent extraction. Beckerman (2012) analyzes firms that
fail their Say on Pay vote and finds no evidence that failing the Say on Pay vote corresponds to an increase or decrease in stock market returns.

Iliev and Vitanova (2013) study firms that did not have to adopt Say on Pay and find that the market reacts positively to compliance with the rule; that management does not behave strategically to avoid compliance or to influence the upcoming vote; that directors of firms that hold Say on Pay votes had an increase in support; and that, as implemented, the regulation did not affect the level or composition of CEO pay. Cuñat, Gine, and Guadalupe (2013) also find that adopting Say on Pay leads to increases in market value by applying a regression discontinuity design to the votes on shareholder-initiated proposals in the U.S. In addition, they find improvements in long-term performance, but limited effects on pay levels and structure.

Larcker, McCall, and Ormazabal (2012) and Ertimur, Ferri, and Oesch (2012) both document that proxy advisory firms have a substantial impact on Say on Pay vote outcomes, with some firms changing their pay practices to avoid a negative recommendation. Their findings are consistent with the earlier findings of Bethel and Gillan (2002) and Morgan, Poulsen, and Wolf (2006), which analyze the effects of proxy advisory firms on shareholder voting.

In the U.S., shareholders also have the right to determine the frequency of Say on Pay votes. Li (2012) examines the market reaction to the shareholders’ decision on the frequency of the vote and the relationship between such decision and firms’ existing corporate governance structures, and finds that the market reaction was significantly positive for firms with excess CEO equity pay and for firms whose shareholders preference of the frequency is the same as that recommended by the Board. Liu (2012) shows that 60% of companies initially recommended every three years as the preferred frequency, although shareholders at 90% of the companies voted in favor of annual votes. Ferri and Oesch (2013) find that a management recommendation
for a particular frequency is associated with a 26% increase in shareholder support for that frequency, suggesting that management influence is comparable to that of proxy advisors.

Though some form of Say on Pay has been implemented in more than a dozen countries, there is a dearth of literature on Say on Pay outside of the U.K. and the U.S. Wagner and Wenk (2010) analyze the market reaction to binding Say on Pay in Switzerland by studying stock price reactions around a Swiss direct democratic initiative and 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. Schrempp (2010) also observes significant negative abnormal returns around the day the initiative was announced. Their results differ substantially from what has been observed for advisory Say on Pay votes in the U.S.

Rapp, Sperling, and Wolff (2010) investigate the German law that allows for non-binding shareholder-initiated votes and find that the probability of a proposal increases with a higher free float and strong media exposure; approval rate increases with the voting power of blockholders; and the introduction of a new compensation system leads to a higher approval rate. Eulerich, Rapp, and Wolff (2012) confirm the findings of the prior paper for the 2010 proxy season. Trottier (2011) explores share price reaction to an announcement that Canadian banks were adopting Say on Pay and finds a positive significant reaction.

performance relation, with the increased sensitivity of reported CEO compensation to firm performance. Monem and Ng (2013) also investigate the consequences of Say on Pay on the pay-performance link in Australian firms employing a matched-pair design and find that pay changes for the CEO and key executives were not significantly positively related to stock returns of the firms in 2011, but had improved significantly in 2012.

Mason, Palmon, and Sudit (2012) analyze Say on Pay in the U.K., Australia, and the U.S. and find that shareholders rarely disagree with the executive pay plans proposed by the Board; that compensation does not decrease; and that dissent is strongest when shareholders are initially given the opportunity to vote and then declines over time. Balsam, Gordon, and Kwack (2013) examine Say on Pay in a cross-country setting and find that it does not affect the CEO compensation level, but changes the composition of the CEO compensation. They also find that binding votes lead to larger CEO compensation reduction.

Correa and Lel (2013) investigate Say on Pay, using a large cross-country sample of about 103,000 firm-year observations from 39 countries, and document that Say on Pay is associated with a lower level of CEO compensation, higher pay-performance sensitivity, a lower pay slice awarded to CEOs, and higher firm value. Furthermore, they find that while both mandatory and advisory votes are associated with lower CEO pay levels, only advisory votes tighten the sensitivity of executive pay to firm performance.

Say on Pay has also been analyzed theoretically and behaviorally. Gox (2012) finds that a binding vote creates a moral hazard problem on the part of the firm's shareholders if the vote takes place after the agent has supplied her effort. He models that the moral hazard problem can be avoided by a pre-contractual vote and if the vote is binding, Say on Pay can improve the
efficiency of the compensation arrangement and effectively reduce the equilibrium level of Board dependence without impairing the CEO's effort incentives.

Krause, Whitler, and Semadeni (2013) conduct two lab experiments to simulate a Say on Pay vote and find that shareholders value pay-for-performance. Bowlin, Christ, and Griffin (2012) use a laboratory experiment and provide evidence that giving investors a voice in setting executive compensation improves their perceptions of the fairness of compensation-setting procedures, which leads to a greater trust in the Board and increases their willingness to invest. However, they find that Say on Pay’s positive effect on investor behavior is greater when Boards give their investors a voice voluntarily, rather than when they are mandated to do so.

Gox, Imhof, Kunz (2011) conduct a laboratory experiment and compare three different types of shareholder voting rights (advisory, unconditionally binding, and conditionally binding voting rights) to a baseline case in which shareholders have no say on CEO pay. They observe that (1) advisory and conditionally binding voting rights do not distort CEO investment incentives, whereas unconditionally binding voting rights adversely affect the CEO’s investment incentives; (2) unconditionally binding voting rights are an effective instrument to curb executive compensation, whereas advisory voting rights have the opposite effect and can even increase executive compensation; (3) a substantial fraction of shareholders reject CEO bonus proposals whenever they have the right to do so, independent of the type of voting right; and (4) advisory and conditionally binding voting rights have only limited impact on executive compensation, but unconditionally binding voting rights reduce executive compensation significantly.

Kaplan, Samuels, and Cohen (2013) conduct an experiment to test whether social ties between the CEO and Board, the CEO’s reputation for financial reporting, or the investor’s perception of fairness will impact the investors’ Say on Pay judgments. They find that social ties
and reputation affect the Say on Pay judgments, which were fully mediated by their perceptions of the fairness of the CEO’s compensation.

V. METHODS

To identify the maximum number of studies, we examined five electronic databases: (1) ProQuest ABI/INFORM, including the Dissertations & Theses database, (2) Thomson Reuters (formerly ISI) Web of Knowledge, (3) Google Scholar, (4) JSTOR, and (5) SSRN using the following search terms: say on pay, compensation regulation, remuneration regulation, shareholder activism, shareholder votes, shareholder proposals, Directors Remuneration Report, and Dodd-Frank. Next, we backward-traced all references in the identified articles and forward-traced all articles that cited these articles using Google Scholar, SSRN, and Web of Knowledge. Then, we consulted the contents of major journals in accounting and finance. Last, we contacted researchers to ask if any unpublished research existed that had not been included.

Initially, we identified 280 studies to review, both published and unpublished, regardless of language. We eliminated articles that only tested shareholder proposals and/votes without specific references to compensation and Say on Pay articles that did not examine the impact of the regulation on executive compensation. Many of the articles failed to report the statistics needed for meta-analysis, so we corresponded with the authors to gather the necessary information. Our final sample consists of 23 articles. Table 2 details the difference between the number of initial studies and the final number of studies by reason.

Insert Table 2 < Study Selection>

Next, we read all articles and developed a coding protocol for extracting data on effect sizes, sample sizes, and moderating variables. We differentiated between measures of compensation, such as cash and total compensation, and between types of recipients, such as
CEO and senior executives. To test our hypotheses later, we collected the requisite data. One author coded all effect sizes, and another author independently coded a sub-sample of 75 randomly selected effect sizes to assess rater agreement. The third author computed a chance agreement-corrected measure of inter-rater reliability (Cohen’s kappa coefficient; Cohen, 1960). The kappa value we obtained was 0.86, signifying a high degree of inter-rater reliability.

**Insert Table 3 < Studies Included in Meta-Analysis>**

CEO total compensation was used as the dependent variable when available. If total compensation was not available, total cash compensation was used. This should not pose a problem for a meta-analysis because these variables all measure the same construct and are highly correlated. It has been demonstrated that simple measures of cash compensation are an excellent proxy for total pay for CEOs (Agarwal, 1981; Finkelstein & Boyd, 1998; Finkelstein & Hambrick, 1989, 1996). There was a variety of independent variables used to predict CEO total compensation, such as shareholder votes, the market to book ratio, and excessive compensation. This raised the issue of how to group these different measures within and across studies.

A review of the literature indicates a number of potential moderating influences on executive compensation: firm size, the nature of the performance indicators (accounting vs. market-based), and the operationalization of compensation. These moderators are moderator variables that help researchers understand the relationship between the independent and dependent variables. "A moderator is a qualitative or quantitative variable that affects the direction and/or strength of the relations between the independent or predictor variable and a dependent or criterion variable," (Baron & Kenny, 1986). To identify whether these moderating factors influence the relationship of interest, we use a Chi-Square test for systematic variation, which is useful in determining whether there is a moderator variable present.
where K is the number of studies in the analysis. If the Chi-square is not statistically significant, then no moderator variable is present. Statistically this is a very powerful test. Given a large enough N, it will reject the null hypothesis even if there is only trivial variation among studies.

It is well-known that one of the variables most highly correlated with executive compensation is the size of the company, regardless of whether size is measured as assets, market value, sales, or number of employees. Extant research addressing governance structures has relied on accounting-based financial indicators, market-based indicators, or both. The nature of a given financial performance indicator may be fundamental, as there is some disagreement regarding the extent to which accounting vs. market-based measures of financial performance impact executive compensation. Again, there are a number of way that executive compensation is operationalized we had to consider.

The index used to represent and standardize the findings of primary studies in meta-analysis is called the effect size. We use the Pearson correlation coefficient (r) as the effect size to integrate the results of our included studies. In order to include a study in the final sample, it is necessary that the study report its correlation coefficient or provide other statistics that are transformable into r using formulas in Wolf (1986), Rosenthal (1991), and Lipsey and Wilson (2001). In some instances, the author provided untabulated statistics that we were able to use. We use only one correlation coefficient per study unless a study reported several correlations from independent samples (e.g., Balsam, Gordon, and Kwack, 2013 and Correa and Lel, 2013 analyze a number of different countries). In this case, following Tosi, Werner, Katz, and Gomez-Mejia (2000), we considered the effect sizes of each sub-sample.
Although the business disciplines predominantly use the Hunter and Schmidt (H&S) approach, a psychometric meta-analysis, (e.g., Hunter and Schmidt, 2004; Aytug, Rothstein, Zhou, and Kern, 2011), the statistical meta-analytic approach used in other areas in the social (e.g., education and some disciplines in psychology) and medical sciences is usually based on the Hedges and Olkin (H&O) approach (Borenstein, Hedges, Higgins, and Rothstein, 2009; Hedges and Olkin, 1985; Hedges and Vevea, 1998). We considered both widely used approaches, and we researched the available meta-analytic software packages. Some of the software was designed to follow the H&S approach; however, there are now several stand-alone packages capable of computing the H&O analyses and creating various graphical displays for the visual communication of results.

We decided to use Comprehensive Meta-Analysis (CMA) after conducting an extensive search for specialized meta-analysis software and consulting Bax, Yu, Ikeda, and Moons (2007), a systematic review of six meta-analysis programs: CMA, MetAnalysis, MetaWin, MIX, RevMan, and WEasyMA. CMA, along with MIX, is known for being easy to use and offering many different capabilities for the analysis as well as the graphical presentation of results (Bax, Yu, Ikeda, and Moons, 2007). CMA appeared the most complete and produced results that were identical to results from STATA and SAS.

VI. RESULTS

The overall effect size ($r$) across all studies was 0.16 ($P < .001$, $Q = 715.46$, fail-safe N = 9726). Table 3 shows the studies, compensation measures, n, and sample statistics, and Table 4 shows the effect size, standard error, explained variance, the 95% confidence interval, and Z values. These results, taken together, provide evidence that Say on Pay does not reduce executive compensation. In our judgment, the results are inconsistent with the public interest
theory of regulation, which posits that regulation is implemented to improve public good (reduce executive compensation).

However, the results of this meta-analysis are a function of the underlying studies. More work needs to be done to measure the impact of Say on Pay in other countries and more extensive testing needs to be done in the large markets. We do find that the composition of executive compensation changes to become more performance-based.

VII. DISCUSSION

Despite the research that analyzes the impact of Say on Pay on executive compensation, the results remain inconclusive. Using a meta-analysis, we applied statistical procedures to the results of 23 empirical studies in order to integrate them, achieve a quantitative generalization and deepen our understanding of the association between Say on Pay and executive compensation. Our findings show that Say on Pay does not impact the level of executive compensation, but it does alter its composition. This result contributes to the literature on Say on Pay, shareholder voting (generally), and compensation regulation.

As with any meta-analysis, our findings should be viewed within the context of the limitations inherent to such studies. The effect size that we consider is the Pearson correlation coefficient because we are testing the association between variables, but we did not control for the problem of reverse causality. Potential endogeneity of the variables has also not been addressed. These are issues that also remain unsolved in many primary studies. Another limitation of our results is the number of studies in our final sample. Additional empirical evidence would be very useful to confirm the findings of this paper or even to perform new analyses. More research could help evaluate the impact of Say on Pay on compensation, especially in countries other than the U.K. or the U.S. and across geographic boundaries.
REFERENCES


* Used in meta-analysis
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<th>Binding Votes</th>
<th>Advisory Votes</th>
<th>Other Components</th>
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<td><strong>Legislated Say on Pay</strong></td>
<td>Italy (banks), Denmark (variable pay), Netherlands (policy change), Norway, Sweden, Switzerland (2013)</td>
<td>Australia, Belgium, Italy, South Africa, Spain, UK, US</td>
<td>Austria, France, Japan</td>
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<tr>
<td><strong>Shareholder-Initiated Say on Pay</strong></td>
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<td>Canada, Germany, Ireland, Switzerland</td>
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Table II: Study Selection

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<th>Initial Sample</th>
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<td>Exclusion Criteria</td>
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<tr>
<td>- Analysis of Shareholder Voting Did Not Include Compensation</td>
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<td>- Not English Language</td>
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<td>- Tested Market Reaction Only</td>
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<td>- Tested Impact of Proxy Advisors on Voting Results Only</td>
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<tr>
<td>- Theoretical Analysis Only</td>
<td>(1)</td>
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<tr>
<td>- Tested Shareholder Voting Results Only</td>
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<tr>
<td>- Data non-transformable into r</td>
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<td>Final Sample</td>
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Table III: Studies included in Meta-Analysis

Alissa (2009)
Armstrong, Gow, and Larcker (2012)
Balachandran, Ferri, and Maber (2008)
Balsam, Gordon, and Kwack (2013)
Balsam and Yin (2012)
Burns and Minnick (2013)
Cai and Walkling (2011)
Carter and Zamora (2008)
Conyon and Sadler (2010)
Correa and Lel (2013)
Cunat, Gine, and Guadalupe (2012)
Ertimur, Ferri, and Muslu (2011)
Ferri and Maber (2013)
Ferri and Sandino (2009)
Fos (2013)
Kimbro and Xu (2013)
Iliev and Vitanov (2013)
Johnson and Shackell (1997)
Martin and Thomas (2005)
Ng, Sibilkov, Wang, and Zaiats (2010)
Perry and Zenner (2001)
Thomas and Martin (1999)
Wang (2008)
Table IV: Compensation Measures, N, and Sample Statistics (as reported)

<table>
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<th>Paper</th>
<th>Source and calculation method</th>
<th>Compensation</th>
<th>Std. Dev.</th>
<th>N</th>
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<td>2,265.8320</td>
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<td>Balachandran, Ferri, and Maber (2008)</td>
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<td>1,417.7726</td>
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# Table V: Effect size, Standard Error, Variance, Confidence Interval, and Z Values

## Meta Analysis

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<tr>
<th>Study name</th>
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<th>Cumulative mean (95% CI)</th>
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