

Outsourcing Shareholder Voting to Proxy Advisory Firms

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Abstract: This paper examines the economic consequences of institutional investors outsourcing research and voting decisions on matters submitted to a vote of public company shareholders to proxy advisory firms. These outsourcing decisions appear to be the result of the regulatory requirement that institutional investors vote their shares combined with incentives for these investors to minimize their cost of voting activity. We investigate the implications of these decisions in the context of shareholder say-on-pay voting required in 2011 under the Dodd-Frank Act. Analyzing a large sample of firms from the *Russell 3000* that are subject to the initial say-on-pay vote mandated by the Dodd-Frank Act, we find three primary results. First, consistent with prior research, proxy advisory firm recommendations have a substantive impact on say-on-pay voting outcomes. Second, a significant number of firms change their compensation programs in the time period *before* the formal shareholder vote in a manner consistent with the features known to be favored by proxy advisory firms in an effort to avoid a negative voting recommendation. Third, the stock market reaction to these compensation program changes is statistically *negative*. These results suggest that the outsourcing of voting to proxy advisory firms appears to have the unintended economic consequence that boards of directors are induced to make choices that *decrease* shareholder value. While this evidence does not speak to the optimality of outsourcing all voting decisions compared to alternative regulatory constructs (e.g. prohibiting proxy advisors or reducing the number of items to be voted on), it does inform this debate by providing evidence on the potential negative economic consequences of outsourcing shareholder voting to proxy advisors.

Keywords: proxy advisory firms; say-on-pay; institutional shareholder voting

JEL Classification: G1; G3; K2; L5

1. Introduction

Significant regulatory, financial press and academic research attention has been paid in recent years to mechanisms that will give shareholders of public companies more control over firms' corporate governance. While most of the focus has been on actual or perceived failings of corporate governance within firms, relatively little attention has been paid to how large institutional shareholders actually utilize their increased influence to affect the governance choices of individual firms.¹ This is an especially important issue because the number of opportunities for shareholders to cast votes on various corporate governance items has increased in recent years (e.g. through shareholder proposals and mandated votes such as say-on-pay) and firms are increasingly responsive to voting results.²

Like many instances of voting by a dispersed base, shareholder voting is subject to free rider problems because any individual shareholder's vote likely matters very little, but they bear the full cost of researching matters subject to vote. While retail investors can choose to not vote, institutional investors have a fiduciary obligation to cast votes on virtually all shareholder ballots, and therefore they represent the preponderance of votes cast. If the free rider problems sufficiently dilute the benefits of engaging in costly research to identify the optimal voting choice, institutional investors may choose to engage in a low cost voting strategy that meets their regulatory requirements but might not result in optimal feedback to the firms. In this paper, we examine the characteristics and the economic consequences of institutional investor voting, and in particular the outsourcing of voting to cost-effective third parties such as proxy advisory firms.³

¹ Our focus is on governance choices influenced through the regular corporate vote channels. This is different from research on shareholder activism (e.g. Gillan and Starks, 2007, and Barber, 2007) which has been largely inconclusive on the value implications to shareholders.

² Among firms covered by ISS Voting Analytics the average number of ballot items per firm increased from 6.48 in 2003 to 9.46 in 2011.

³ A recent (somewhat extreme) example of outsourcing is the decision of BlackRock to outsource voting on the question of whether to split the chairman and CEO for JPMorgan Chase to Governance for Owners. Since

Institutional investors generally have a fiduciary responsibility to vote shares in their portfolios in a manner that is beneficial to their shareholders.⁴ In 2003, the SEC further increased the requirements for mutual funds by requiring them to disclose their voting policies as well as disclose how they actually voted on every ballot item. A key objective of this regulation was to motivate institutional investors to monitor firms in a manner that benefits all shareholders (SEC, 2003). However, institutional investors tend to have relatively small holdings in a large number of stocks making the cost of researching every ballot item at each annual meeting for all stocks in their portfolio costly.⁵ Moreover, the economic benefits to an institutional investor conducting this research (presumably by forcing appropriate governance changes and reducing agency problems) are likely to be quite small because an individual fund only recognizes the partial benefit associated with its small ownership stake in firms where the investor is the pivotal voter, while incurring all the costs of this research activity (i.e., traditional free-rider problems confront each institutional investor). One consequence of this is that shareholder voting processes have taken on characteristics of compliance function (i.e., making sure that the votes are cast according to a specific policy), as opposed to an activity involving the portfolio managers who are engaged in research resulting in buy or sell decisions for shareholders in the funds.⁶

BlackRock owned approximately 6.5% of the shares of JPMorgan Chase, they were required to outsource to an independent third party under the Bank Holding Company Act (see Craig and Silver-Greenberg, 2013).

⁴ Throughout the paper, we use the term “institutional investors” to include all non-individual investors such as mutual funds, pension funds, endowments, insurance companies, and other similar entities. These investors usually have a fiduciary responsibility to vote their shares, but the relevant controlling regulations vary across investor types. Mutual funds are a subset of the larger group that are specifically subject to the changes in voting requirements and disclosure of actual votes implemented in by the SEC in 2003

⁵ Glass Lewis & Co. notes, “Most institutions do not have adequate in-house resources to ensure that the right decisions are being made on the hundreds or thousands of proxies they vote each year”. Source: www.glasslewis.com/solutions/proxypaper.php (accessed April 22, 2011)

⁶ For instance, at Fidelity Investments, according to their proxy voting policy, proxy voting is conducted by a separate internal group and does not explicitly provide for input or recommendations from portfolio managers or research analysts covering the firm on many common proxy items. Fidelity’s policy provides for consulting portfolio managers on items for which no guidelines have been established. However guidelines have been established for many common circumstances, including director elections, equity compensation plans, stock option exchanges and “say-on-pay” advisory votes, implying that portfolio managers would not ordinarily participate in the

In this market setting, we would expect “corporate governance research entities” such as proxy advisory firms to form and invest in costly data collection and research where this cost is ultimately shared across many institutional investor clients.⁷ That is, institutional investors will tend to outsource their voting decisions to these proxy advisory firms as long as their net benefits will exceed those from doing all the necessary research in-house.⁸ This is even a more likely outcome after the SEC (2003) issued an interpretation that the use of proxy voting policies developed by an independent third party (i.e., proxy advisors) would be deemed free of a conflict of interest and would meet mutual funds’ proxy voting obligations. Thus, the least costly way to satisfy an investors’ regulatory responsibility to cast shareholder votes can easily be to outsource voting to Institutional Shareholder Services (ISS) or Glass Lewis (GL).

The important public policy issue in this setting is whether the payments made by institutional investors are sufficient for the proxy advisory firms to engage in costly research to develop “correct” governance recommendations from the perspective of firm shareholders. If the institutional investors are only using the proxy advisor voting recommendations to meet their compliance requirement with the lowest cost, these payments will not compensate proxy advisors for conducting research that is necessary to determine appropriate corporate governance structures for individual firms. Under this scenario, the resulting recommendations will tend to be based on simple, low cost approaches that ignore the complex contextual aspects that are almost certainly instrumental in selecting the corporate governance structure for individual firms. Given the

review of those items (Fidelity Funds’ Proxy Voting Guidelines, November 2010). Other firms completely outsource the voting process to third-party proxy advisors, bypassing input from portfolio managers.

⁷ Since institutional investors hold shares in many thousands of individual domestic and international companies, a proxy advisory firm must have sufficient scale to provide voting recommendations for many proposals for this large number of firms. Thus, there are substantial fixed costs to start a competitor firm and the prospects of success are likely to be low given the “first mover” advantages of the two largest firms (ISS and Glass Lewis). Over the past decade, new entrants have failed to generate any meaningful market share (e.g., Egan Jones). The proxy advisory industry has the classic oligopoly structure.

⁸ An additional alternative available to institutional investors would be to make no investment in research of proxy items and simply make an arbitrary voting decision, such as always following management’s recommendation. This strategy would carry significant legal/regulatory risk because, if discovered, the institution may have violated its fiduciary duty to its shareholders.

theoretical and practical difficulty of selecting corporate governance, there is no reason to assume that a simple approach to voting recommendations is optimal for the affected firms. However, if proxy advisors can influence enough shareholder votes, boards of directors will be forced or induced to respond by changing executive compensation programs and governance structure in a manner consistent with the recommendations of proxy advisor firms. The obvious question that remains to be answered is whether or not the confluence of government regulations, the outsourcing of recommendations the proxy advisory industry, and responses by boards of directors to these recommendations, produces an increase in shareholder value as anticipated by government regulators (SEC, 2003).

In this paper, we examine impact of institutional shareholder voting, particularly the outsourcing of research and recommendations to proxy advisory firms, in the setting of shareholder say-on-pay voting. The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) imposed a requirement that public companies allow shareholders the opportunity to cast an advisory vote on executive compensation (typically annually) beginning in 2011. This requirement is commonly referred to as say-on-pay (SOP).⁹ Shareholders that disagree with a firm's executive compensation program can cast a non-binding (or precatory) vote "against" the management compensation program disclosed in the proxy statement for the annual shareholder meeting. The primary regulatory assumption with SOP is that firms will make changes to their compensation program when a substantial proportion of negative (against) votes are cast by shareholders.

The implementation of SOP voting provides several advantages to other shareholder vote issues for purposes of evaluating the economic impact of vote outsourcing to proxy advisors.

⁹ Prior to the Dodd-Frank Act, firms receiving aid under the Troubled Asset Relief Program (TARP) were required to conduct SOP votes beginning in 2009, and a small number of non-TARP firms voluntarily adopted SOP votes prior to Dodd-Frank.

First, the regulation is broad, effecting most of the U.S. equity market. Second, because this is a new proxy ballot item, inferences are less confounded by questions of timing (e.g., whether actions might be in response to a past vote or in anticipation of a future vote). Finally, we exploit the fact that while SOP voting was new for most public companies, the policies used by proxy advisors to develop their recommendations were well publicized and known to boards of directors in advance the first SOP votes required by Dodd-Frank Act. This enables us to examine changes that boards of directors make to compensation programs *in anticipation of* the initial SOP votes and the shareholder reaction to those changes. If a board anticipates opposition to its executive compensation program and believes that this opposition is costly to shareholders (e.g., because it invites derivative lawsuits, negative press, regulatory scrutiny, or distracts executives and employees) or is personally costly to them (e.g., through litigation or reputation risk), it might rationally take preemptive actions to decrease the probability of receiving negative votes. In such a setting, the board of directors will be interested in anticipating whether institutional investors (who generally hold the majority of outstanding shares) will vote for or against a SOP proposal.

We document that many institutional investors rely on proxy advisory firms, primarily ISS and GL, for data and analysis to guide their voting choices. Although each institutional investor ultimately controls the votes cast for its own shares, it is common for funds to rely in whole or in part on the policies and guidelines of proxy advisory firms to inform their SOP voting decisions (Belinfanti, 2010). For example, SEI Investment Management, Grantham, Mayo, and Van Otterloo, Evergreen Investment Management, Dimensional Fund Advisors, Wells Fargo Funds Management, and Nuveen Asset Management voted more than 99% of the time with the ISS recommendation. Similarly Charles Schwab, Neuberger Berman, Loomis

Sayles, and Invesco disclose that they follow GL SOP recommendations.¹⁰ As a result, depending on their shareholder base, it is possible for firms to substantially decrease votes against SOP by obtaining a positive recommendation from proxy advisory firms.

This shift in expected voting outcomes can be accomplished by making changes to the compensation program so that its features more closely align with the voting policies of the proxy advisory firms before the proxy statement is released and these firms issue their SOP voting recommendation. For example, in a recent survey conducted by The Conference Board, NASDAQ, and the Stanford Rock Center for Corporate Governance (2012), over 70% of the director and executive officer respondents indicated that their compensation programs were influenced by the policies of and/or guidance received from proxy advisory firms during their evaluation of SOP. If the policies and guidelines of proxy advisors effectively identify poor pay practices, changes made by boards of directors to align their executive compensation programs more closely with these policies will decrease executive rent extraction and increase shareholder value. However, if proxy advisor voting policies do not identify suboptimal corporate governance, changes made to align executive compensation programs with these policies could move compensation contracts away from the optimal structure and reduce the value of the firm. We provide insight into these potential shareholder value implications by examining the determinants of the SOP voting outcomes (including proxy advisor recommendations), assessing whether boards of directors make compensation plan changes that are favored by proxy advisors in anticipation of the first SOP vote, and estimating the economic consequences of these decisions for shareholders.

¹⁰ While GL does not publish their recommendations to non-subscribers, we confirm that these institutions make the same vote in more than 99% of cases, which is consistent with use of the same recommendations.

Our tests are based on 2,008 firms from the *Russell 3000* index that held their shareholder meeting in 2011 and were required to have a SOP vote under the Dodd-Frank Act. Consistent with prior research (e.g., Bethel and Gillan, 2002, Cai, Garner, and Walking, 2009, and others), we first show that the proxy advisory firm recommendations substantially influence the voting tally. For example, a simple univariate analysis reveals that firms that received a negative recommendation by ISS (GL) obtained an average 68.68% (76.18%) voting support in SOP proposals.¹¹ In contrast, firms that did not receive a negative recommendation from ISS (GL) obtained an average of 93.4% (93.7%) support in those proposals. This differential voting effect is even more pronounced when the specific institutions owning shares in the firm historically rely more heavily on ISS recommendations (i.e., institutions are more likely to vote in line with ISS recommendations when there is a disagreement between the voting recommendation of ISS and management). Specifically, for negative SOP recommendations, we find that firms with investors that have an above-median likelihood of voting with ISS exhibit 63.5% support for the proposal, whereas firms where that likelihood is below median exhibit 73.5% support for the proposal.

As a result of their ability to influence SOP votes, proxy advisory firms can induce firms to adopt compensation plan features that they are known to favor (e.g., performance-based equity and elimination of tax gross-ups in change of control plans).¹² While firms rarely discuss the specific role of proxy advisors in making changes to executive compensation in their public

¹¹ In the first year of SOP, firms in our sample received, on average, 90.27% approval from shareholders. However, 13.24% of companies received at least 20% votes against their plan and 32 of the sample companies actually failed their vote (less than 50% of vote cast in favor of management's proposal).

¹² For example, General Electric stated that changes were made to stock options previously granted to the CEO after "a number of constructive conversations with shareowners" (General Electric SEC Form DEFA14A filed April 18, 2011). Disney initially tried to argue that shareholders should ignore a negative vote recommendation from ISS (The Walt Disney Company SEC Form DEFA14A filed March 2, 2011), but later removed the key feature causing the negative ISS recommendation without discussion of the reason (The Walt Disney Company SEC Form DEFA14A filed March 18, 2011). ISS changed their SOP recommendation for Disney on the same date (ISS Proxy Voting Report dated March 18, 2011).

filings, reports by business media indicate that these changes were made in response to proxy advisor policies.¹³

Our primary tests examine compensation changes made in the time period *preceding* the SOP vote that better align the compensation program with known proxy advisor policies. We find that these changes are more likely to be observed among firms that expect to receive a negative SOP recommendation in the absence of a compensation plan change and where ISS can influence a substantial number of shareholder votes. Since most executive compensation changes must be publicly disclosed on Securities and Exchange Commission (SEC) Form 8-K, it is possible to precisely estimate the stock market assessment of these decisions by the board of directors. We find that the average risk-adjusted return on the 8-K filing date is a statistically significant -0.44% lower among compensation changes aligned with proxy advisor policies than among compensation changes unrelated to proxy advisor policies. Moreover, this effect is unique to 8-K changes in the time period before SOP and similar results are not observed for earlier time periods.

As with all observational studies, there are a variety of alternative interpretations of this result. However, we believe that the most plausible conclusion is that the confluence of the regulatory environment and free ridership problems inherent in shareholder voting leads institutional investors to outsource the proxy voting decision to proxy advisory firms, but that they are not willing to pay for research sufficient to induce optimal governance choices in firms.

¹³ For example, see Joann S. Lublin, “Firms Feel ‘Say on Pay’ Effect,” *The Wall Street Journal*, May 2, 2011; and Andrew Dowell, and Joann S. Lublin, “Strings Attached to Options Grant for GE’s Immelt,” *The Wall Street Journal*, April 20, 2011. Twelve firms made changes to (or commitments to change) compensation programs after filing their proxy statement containing the SOP proposal, and subsequently received a positive recommendation from ISS. Ten of these firms received a positive ISS recommendation on the same date as the public announcement of their revised compensation programs, one received positive recommendation two days later, and the last firm received a positive recommendation three weeks later. Nine of the 12 firms had received an initial negative recommendation from ISS that was reversed to a positive recommendation when the firm disclosed its changes. The other three firms received their initial (positive) recommendation from ISS immediately after filing amendments to their proxy statements.

As a result, the proprietary SOP policies of proxy advisory firms induce the boards of directors to make compensation decisions that *decrease* shareholder value. While we cannot assess the overall social welfare effect related to the outsourcing of proxy voting to the proxy advisory industry, this paper informs this debate by providing evidence on the potential negative economic consequences of outsourcing shareholder voting to proxy advisors.

The remainder of the paper consists of six Sections. Section 2 discusses the institutional background for proxy advisory firms, SOP and prior research on these topics. Section 3 describes our sample selection. Section 4 presents our analysis of the determinants of proxy advisors' SOP recommendations. Section 5 assesses the influence of proxy advisors on shareholder voting. Section 6 examines the responses by boards of directors to proxy advisors' policies, the economic consequences of these responses, and an assessment of alternative interpretations of our results. Summary and concluding remarks are provided in Section 7.

2. Institutional Background and Literature Review

2.1 Proxy Voting Requirements for Institutional Investors

Institutional investors are generally fiduciaries for the ultimate economic owners of the assets they are investing, which obligates them to a duty of care and loyalty that includes exercising the voting rights on shares in their portfolios. Prior to 2003, there was little insight into how individual institutional investors were actually using their voting power. In response to concerns that institutional investors were conflicted in their voting by other business dealings with issuers, as well as significant pressure from organized labor groups, the SEC adopted new voting requirements in 2003 (Cremers and Romano, 2009). The key requirements of the 2003 regulations were for mutual funds to disclose their votes on all shareholder ballot items, as well

as the policies and procedures used to determine their vote (SEC, 2003). The SEC summarized the objectives of requirements in the final rule:

Proxy voting decisions by funds can play an important role in maximizing the value of the funds' investments, thereby having an enormous impact on the financial livelihood of millions of Americans. Further, shedding light on mutual fund proxy voting could illuminate potential conflicts of interest and discourage voting that is inconsistent with fund shareholders' best interests. *Finally, requiring greater transparency of proxy voting by funds may encourage funds to become more engaged in corporate governance of issuers held in their portfolios, which may benefit all investors and not just fund shareholders* (SEC, 2003, emphasis added).

The objectives stated by the SEC clearly assume that institutional investors will conduct the research necessary to cast votes that will lead to “optimal” corporate governance choices. However, each institutional investor also faces a classic free rider problem. Most institutional investor holdings are relatively small portions of each firm’s total securities [in our sample, the mean (median) holding is 0.3% (0.03%)]. This makes it unlikely that a given institution is a pivotal voter on any ballot item. Most of these institutions also hold a large number of securities, making the cost of engaging in research necessary to determine the correct vote on every proxy item very high. These free rider problems make it clear that there are economic incentives for institutional investors to not invest in costly research on proxy votes.

Determining how to vote on complex issues of corporate governance typically involves evaluating a wide range of idiosyncratic firm issues, such as each director’s experience and their cumulative skills, appropriateness of firm oversight and strategy, firm compensation relative to firm strategy, personal characteristics of executives, practices of other industry and labor market competitors, and many others features of the economic setting. This type of research is not the primary business of most institutional investors. As a result, outsourcing this research (and in many cases the voting decision) may be the most cost efficient means of meeting their obligation

to vote their owned shares.¹⁴ At the same time the new proxy voting rules were finalized, an interpretative letter from the SEC provided that the use of proxy voting policies and recommendations developed by an independent third party such as proxy advisors would be deemed free of a conflict of interest and would meet mutual fund proxy voting obligations. From a compliance perspective, this ruling provided considerable incentives for mutual funds to rely on the recommendations of third-party proxy advisory firms, particularly when they might be perceived to have conflicts of interest arising from other business dealings (Belinfanti, 2010). If the free rider problems are substantial and portfolio managers do not use the proxy advisory firm recommendations in stock selection, institutional investors will not pay higher fees for better research beyond that necessary to meet the simple compliance requirements. If the resulting ISS and GL SOP recommendations are inappropriate, corporate governance changes induced by these votes are unlikely to increase shareholder value. These concerns have not gone unnoticed by the SEC, as (former) Commission Chairwoman Mary Shapiro noted, the SEC will:

“...be examining the role of proxy advisory firms. Both companies and investors have raised concerns that proxy advisory firms may be subject to undisclosed conflicts of interest. *In addition, they may fail to conduct adequate research, or may base recommendations on erroneous or incomplete facts*” (emphasis added).¹⁵

2.2 Proxy Advisory Firms

Past research has documented that proxy advisor recommendations have a significant impact on the voting outcomes on various types of shareholder ballot items. For example, Morgan, Poulsen, and Wolf (2006) investigate trends in shareholder voting on management

¹⁴ For instance, passive index funds typically do not conduct firm-specific corporate governance research for their trading activities. Although actively managed funds may trade on selected governance characteristics, this does not appear to be a key part of their typical fundamental investment strategies based on our interviews with portfolio managers at six large mutual funds. Moreover, the recent Tapestry Networks and IRRC Institute (2012) study of how mutual funds vote finds that many funds outsourced their voting on say-on pay to proxy advisory firms.

¹⁵ Speech by Mary Schapiro, from *NACD Directorship Magazine*, Dec. 2010/Jan. 2011, p. 48

sponsored compensation programs. Over the time period from 1992 to 2003, affirmative voting for these management sponsored proposals declined, and in particular, negative vote recommendations of a proxy advisory firm resulted in a 20% increase in negative votes cast. Similarly, Bethel and Gillan (2002) and Cai, Garner, and Walking (2009) find that a negative ISS recommendation on a management proposal can sway between 13.6% to 20.6% and 19% of votes, respectively. Prior research clearly establishes a strong association between negative recommendations by proxy advisory firms and subsequent voting outcomes for management proposals. However the precise nature of the role of proxy advisors remains unclear.

Thomas, Palmiter and Cotter (2012) point out that proxy advisors may represent an aggregation of institutional investor perspectives that allow the industry to effect corporate governance changes in a coordinated way. From this perspective, proxy advisory firms may simply be an informative conduit between institutional investors and firms. However, Larcker, McCall and Tayan (2013) evaluate the public disclosures of the processes by which proxy advisors develop their voting guidelines and show that there is considerable discretion applied in translating the diverse feedback (using questionnaires and informal discussions) from investors and corporate issuers into specific voting recommendations. That is, the voting recommendations are not a simple tabulation of views expressed by institutional investors. Regardless of whether proxy advisors provide independent assessments and/or simply aggregate the views of institutional investors, it is important for researchers, shareholders, and regulators to understand whether ultimate policies that are adopted are value enhancing for firm shareholders.

The economic implications of outsourcing voting decisions to proxy advisors are unclear in prior literature. Larcker, McCall and Ormazabal (2012) examine the consequences of designing stock option repricing programs according to proxy advisor policies and find that

programs that are constrained to meet proxy advisor criteria are less valuable to shareholders. Alexander, Chen, Seppi, and Spatt (2010) provide insight into the role of proxy advisors in the context of contested director elections. They conclude that an ISS recommendation in favor of the dissident slate can serve as both an indicator for the likelihood that the dissident slate is elected and as a certification of the value of the dissidents to shareholders. However, the setting of contested elections is quite different from typical proxy ballot items. In particular, the decision to propose opposing director slates is a relatively rare occurrence that comes from dissident shareholders rather than management, and proxy advisors have different processes and (more seasoned) research teams for evaluating contested elections and merger and acquisition transactions (Winter, 2010).

2.3 Regulation of Executive Compensation and Shareholder Say-On-Pay

Concerns and criticisms over the reasonableness of compensation levels for managers of publicly traded companies has been a topic of interest for journalists, politicians, and researchers for at least a century. Efforts to restrict executive compensation have typically utilized either taxes (e.g., Internal Revenue Code Regulations 162m and 280G)¹⁶ to make certain arrangements prohibitively expensive or increased disclosure (e.g., the 1992 and 2006 revisions for reporting executive compensation in the annual proxy statement or SEC Filing DEF 14A) in an effort to motivate boards and executives to make changes in response to pressure from shareholders or the public.¹⁷ Research examining the effects of IRC 162m has shown modest effect on the form but not the level or performance sensitivity of executive compensation (e.g., Hall and Liebman,

¹⁶ IRC 162m limits the deductibility of executive compensation to \$1 million per year for each named executive officer unless the compensation qualifies as “performance-based” under the code. 280G imposes a 20% excise tax on “golden parachute” payments following the acquisition of the company if they exceed certain thresholds. The 1992 and 2006 revisions to proxy reporting regulations represented substantial revisions of the disclosure regime, significantly increasing the tabular and narrative disclosure of compensation to named executive officers (e.g., see Freher, 1992, and Buck Consultants, 2006 for discussion of changes).

¹⁷ Core, Guay, and Larcker (2008) also find little evidence that negative discussion in the press causes firms to reduce the level or change the mix in executive compensation.

2000, Rose and Wolfram, 2002). In fact, some research suggests that pay levels actually rose in the wake of increased disclosure requirements (Murphy 1998).

"Say-on-pay" provides shareholders with a new mechanism to influence executive pay. Instead of legislating particular practices, shareholders are given the opportunity to evaluate a firm's publicly disclosed compensation practices and provide direct feedback to boards of directors through a non-binding shareholder vote. With the passage of the Dodd-Frank Act, nearly all U.S. public companies are required to provide shareholders with a non-binding advisory vote on executive compensation beginning with annual shareholder meetings occurring on or after January 21, 2011.¹⁸ Shareholders are asked whether they approve of the executive compensation programs as disclosed in the Compensation Discussion and Analysis (CDA) of the annual proxy statement. Prior to the Dodd-Frank Act, U.S. firms that received federal assistance under the Troubled Asset Relief Program (TARP) were required to provide SOP proposals to shareholders. However, for other firms, providing shareholder SOP voting was voluntary.¹⁹

Cai and Walkling (2011) examined the market reaction to the passage of a say-on-pay bill in the House of Representatives and found that firms with excess compensation saw a positive market adjusted return, suggesting that shareholders believe this monitoring mechanism would be effective. However, Cai, and Walkling (2011) also find that firms that are targeted by labor unions with shareholder proposals on executive compensation experienced a negative reaction to

¹⁸ In its final rule on SOP, the SEC provided a temporary exemption to the SOP requirement for companies with a public float less than \$75 million. These firms will be required to implement SOP votes in annual meetings on or after January 21, 2013 (see: <http://www.sec.gov/news/press/2011/2011-25.htm>).

¹⁹ SOP related activity has been increasing in recent years, beginning with shareholder pressure on firms to implement SOP votes through the shareholder proposal process, voluntary adoptions and requirements for TARP participants. In 2007 (2008) there were approximately 50 (90) shareholder proposals calling for SOP votes which garnered average support of 40.8% (41.7%) in favor. In 2008, Aflac, Inc. and RiskMetrics Group, Inc. (then the parent company of ISS) submitted SOP votes to shareholders. In 2009, TARP participants were required by the American Recovery and Reinvestment Act to provide a SOP vote, and other companies, notably Verizon Communications Inc. and Motorola, Inc. voluntarily introduced SOP votes after shareholder proposals received majority support (Hodgson 2009).

the proposal disclosures. This result may indicate a potential cost if certain shareholders and activists are able to use the mechanism to possibly pursue an agenda different from making decisions to increase shareholder value. In contrast, Larcker, Ormazabal, and Taylor (2011) find that stock market reactions to the SOP provision in Dodd-Frank Act are decreasing in CEO pay levels. This suggests that observed compensation choices are the result of value-maximizing contracts between shareholders and management, and broad government actions that regulate such governance and compensation choices are value destroying.

While the Dodd-Frank Act represents the first time that U.S. companies have been required to provide a SOP vote, a similar non-binding vote structure has been in place since 2002 in the United Kingdom.²⁰ Carter and Zamora (2009) and Alissa (2009) find that negative votes are associated with measures of excess compensation, and that boards respond to negative votes by reducing excess salary levels and by forcing out highly paid CEOs. Ferri and Maber (2013) find that firms adjust contractual features and increase the sensitivity of pay to performance in response to negative voting outcomes. However Conyon and Sadler (2010) did not find any change in the overall level of executive pay or its rate of growth subsequent to SOP votes.²¹ Thus, whether SOP produces compensation contracts that are more desirable from the perspective of shareholders remains an important and unresolved question.

²⁰ In 2003, Netherlands required companies to submit compensation policy changes to a binding vote. In 2005, Sweden and Australia both adopted requirements for non-binding shareholder votes on remuneration reports. It is noteworthy that each of these countries has significant requirements for pay disclosure. Norway, Spain, Portugal, Denmark and, most recently, France, have followed suit. In Canada, as of the end of April 2009, 12 of the country's largest companies have agreed to give their shareholders a non-binding vote on executive compensation. In 2013, voters in Switzerland passed a referendum requiring a *binding* SOP vote and German legislators have promised legislation giving investors more control of executive pay.

²¹ U.S. shareholders have also historically had the ability to influence corporate governance outcomes, including executive compensation, outside of SOP votes. For example, Del Guercio, Seery, and Woidtke (2008) examine boards' response to shareholders withholding votes for director candidates and find evidence that they are associated with subsequent governance improvements. Ertimur, Ferri, and Muslu (2011) also examine director voting and non-binding shareholder proposals and find that targeted firms with high excess CEO pay see greater shareholder support for the proposals and subsequently reduce CEO pay.

2.4 Institutional Shareholder Services Say-on-Pay Voting Policies

In order to understand the ISS process for determining SOP voting recommendations, we reviewed the ISS 2011 U.S. Proxy Guidelines (ISS, 2011a) and a sample of other research reports purchased directly from ISS. ISS notes three primary considerations that can result in a negative SOP recommendation: misalignment between CEO pay and performance, problematic pay practices, and poor communication and responsiveness to shareholders. In addition, ISS evaluates five components of executive pay and assigns each either a high, medium or low level of concern. The five categories are (1) Pay for Performance Evaluation, (2) Non-Performance-Based Pay Elements, (3) Peer Group Benchmarking, (4) Severance/CIC Arrangements, and (5) Compensation Committee Communication and Effectiveness (ISS, 2011b).

The ISS "Pay for Performance Evaluation" conducts an initial screen based on recent total shareholder return (TSR). The screen first considers whether the one-year and three-year TSR are below the median of all the firms in the same four-digit Global Industry Classification Standard (GICS) code. If both the one and three year TSRs are below the corresponding medians of the GICS group, ISS examines whether the total compensation of a CEO who has served for at least two full fiscal years is aligned with total shareholder return over time (ISS, 2011a). The primary measure for evaluating alignment of CEO compensation highlighted in ISS reports is the one-year change in total compensation.²² ISS also considers other elements of CEO pay alignment, including a graphical presentation of total CEO compensation and TSR over the previous five years and the percentage of equity compensation that is "performance-based"

²² In defining "total compensation", ISS closely follows the presentation of the summary compensation table, and includes a combination of realized pay (e.g., salary, bonus payments, cash long-term incentives) and the expected value of awards that will be earned in the future (e.g., stock options, restricted stock).

(i.e., where the vesting of awards is contingent on meeting performance targets).²³ In the "Non-Performance-Based Pay Elements" analysis, ISS evaluates the reasonableness of elements they consider not performance based, including the value of perquisites, existence and cost of tax gross-ups on perquisites and non-qualified pension plans, and accumulated present value of pension obligations to the CEO. In their policy document (ISS, 2011a) ISS also notes that they consider repricing underwater stock options without shareholder approval a problematic pay practice that could result in a negative recommendation.

In their "Peer Group Benchmarking" analysis, ISS considers whether the firm's choice of peer companies and the target pay positioning against those peer companies are appropriate. The "Severance/CIC Arrangements" analysis identifies problematic features in severance and change-in-control (CIC) contracts for executives. In its policy document (ISS, 2011a) ISS identifies three features of new or extended CIC arrangements that they view as problematic: (1) payments exceeding three times the sum of salary and bonus; (2) payments made in the absence of involuntary job loss (i.e., single-trigger contracts); and (3) the provision of gross-up payments to offset golden-parachute excise taxes. The "Compensation Committee Communication and Effectiveness" analysis evaluates the disclosure of executive compensation in the proxy statement (which includes the role of the CEO in setting pay, disclosure of performance targets and compensation benchmarking practices) and the Board's responsiveness to investor input on compensation issues (which includes responses to majority-supported shareholder proposals and significant opposition to SOP votes) (ISS, 2011a).

2.5 Glass, Lewis & Co. Say-on-Pay Voting Policies

²³ It is interesting to point out that ISS and GL do *not* consider stock options or restricted stock with time-based vesting (which is the most common vesting criteria) to be performance-based pay elements.

Glass Lewis provides significantly less information on their policies in public documents.²⁴ Based on the available information, GL appears to use metrics that are similar to ISS in their SOP recommendation. However their approaches for determining an ultimate vote recommendation generate different results in many cases.²⁵ Specifically, GL organizes their analysis of executive compensation into three sections, "Pay-for-Performance", "Structure", and "Disclosure". Their proprietary "Pay-for-Performance" model results in a letter grade (A, B, C, D, or F) for each firm. The analyses of compensation "Structure" and "Disclosure" result in ratings of "Poor", "Fair" or "Good" (GL, 2012)

To determine their "Pay-for-Performance" rating, GL compares a firm's compensation to a peer group of firms developed using a proprietary computation. They then compare the percentile ranking of the firm against the peer group companies in two compensation metrics (CEO total compensation and total compensation of the top five executives) and seven performance metrics (stock price change, change in book value per share, change in operating cash flow, EPS growth, total shareholder return, return on equity and return on assets) over the prior one-, two- and three-year periods. Their model generates a weighted average compensation percentile and a weighted average performance percentile, and the difference between those values is referred to as the "pay-for-performance gap". The firm is then given a grade based on a forced grading curve (e.g., with the 10% of firms with the highest gap receiving an "F" and the

²⁴ Unlike ISS, GL does not generally provide researchers with a means of accessing their proxy reports. We requested access to GL proxy reports for this study, but GL responded that they had provided their reports to other academics on an exclusive basis. GL's proxy recommendation policy document (GL 2011a) also does not provide a detailed description of their process for determining recommendations. Therefore, we rely on GL reports obtained from web-based searches and the discussion of GL policies in Ertimur, Ferri, and Oesch (2013) which is based on the actual GL proxy reports.

²⁵ Ertimur, Ferri, and Oesch (2013) report that ISS and GL make the same recommendation 77.0% of the time. However, conditional on at least one of the firms making a negative recommendation, they agree only 17.9% of the time. This is consistent with our findings. We find that the unconditional agreement is 78.6% and conditional on at least one negative recommendation it is 22.5%. This is in part due to GL issuing almost twice as many negative recommendations as ISS, but even within the subset of firms receiving a negative recommendation from ISS, we (Ertimur, Ferri, and Oesch, 2013) find that the rate of agreement is only 48.1% (44.4%), indicating that although the model inputs are similar, the algorithms do have distinct features.

10% with the lowest gap receiving an “A” (GL, 2011b)). GL does not provide details of its analysis of the “Structure” category in its public policy documents. Ertimur, Ferri, and Oesch (2013) report that more than fifty different features of compensation programs are cited, and that the five most common items are (respectively) a lack of clawback provisions, limited performance-based nature of incentive plans, various types of tax gross-ups, controversial features in CIC plans, and lack of ownership requirements.

Similar to the “Structure” analysis, GL does not provide details of how it determines its “Disclosure” rating in its public policy documents. However, the two primary concerns driving Poor ratings for “Disclosure” appear to be lack of disclosure of performance metrics or goals and lack of disclosure of how equity awards are determined.²⁶

3. Sample

Our initial sample consists of all firms included in the *Russell 3000* index during 2010. Since the composition of this index varies slightly across calendar quarters, our initial sample is composed of firms that appear in at least one quarter (n = 3,062). We focus on companies that held their shareholder meeting in 2011, have data available in Compustat, CRSP, Equilar (the source of our compensation data), and Voting Analytics. We also exclude firms that held their shareholder meeting before January 21, 2011 and smaller reporting entities (public float of less than \$75 million) because those firms were not required to conduct a SOP vote in this period. We focus on companies that filed their proxy statement in the first half of 2011 because actions preceding later shareholder meetings might be confounded by the actions taken by competitors in

²⁶ Similar to the findings in the ISS evaluation, Ertimur, Ferri, and Oesch (2013) find that a poor score in the pay-for-performance model (“D” or “F”) was associated with the most negative recommendations (89.2%). Other features that they document leading to negative recommendations include lack of performance-based equity plans, various types of tax gross-ups, controversial features in change of control plans, discretionary elements of pay, and lack of clawback provisions.

response to SOP and because during those months ISS announced changes in its voting policies for the 2012 proxy season. Finally, we require the firms to have an available ISS SOP recommendation and a CEO with tenure of at least two years in order to allow for a comparison of changes in CEO pay and firm performance. Our selection process produces a final sample of 2,008 firms.

Table 1 presents descriptive statistics of the sample firms and the 4,513 firms in the CRSP-Compustat universe with fiscal-year end dates from 6/30/2010 to 3/31/2011. The 2,008 sample firms capture approximately 71% of the market capitalization of this benchmark group. The mean (median) market capitalization of the sample firms is 5,982 (1,173) million dollars compared to the mean (median) market capitalization of the firms in the CRSP-Compustat universe of 3,750 (499) million dollars. We find that our sample firms also have a lower book-to-market ratio, lower return volatility, and higher percentage of shares owned by institutions than the benchmark group. In terms of industrial sectors as defined by Fama and French groups, we find that the industry affiliation of the sample firms is similar to that of the benchmark group (Table 1, Panel B).

4. Determinants of Proxy Advisory Firm Say-on-Pay Recommendations

4.1 Proxy advisory firm Say-on-Pay recommendations

We collect the ISS SOP voting recommendations from the ISS Voting Analytics database. We construct *ISS_against* as equal to one if the ISS recommendation was against SOP and zero otherwise. ISS recommended against 13% of the firms in our sample (Table 2, Panel A). Glass Lewis' recommendations are not publicly available. However, it is straightforward to infer GL recommendations from the voting behavior of four funds that publicly disclose that their SOP vote follows GL policies: Charles Schwab, Neuberger Berman, Loomis Sayles, and

Invesco (confirmed by each fund’s proxy voting policies included in their 2011 Statement of Additional Information). We collect the SOP voting decisions of these four funds from SEC Form NPX disclosures and find that they vote in the same way in the vast majority of cases.²⁷ We construct *GL_against* as equal to one if those funds vote against the SOP proposal and zero otherwise. We find that GL recommended against 21% of our sample (Table 2, Panel A), which is considerably more aggressive than ISS, and consistent with the level of opposition reported by GL (Glass Lewis, 2012).²⁸ As might be expected, ISS and GL recommendations are highly correlated. ISS and GL recommendations coincide in approximately 79% of the cases, but they differ in 395 cases out of 1849 observations for which we have both ISS and GL recommendations (Table 2, Panel B). It is also interesting to note that no firm that received a positive ISS recommendation failed to pass the SOP proposal, whereas for GL one firm that received a positive GL recommendation did not obtain a majority support from shareholders.

4.2 Proxy advisory firm SOP policies

As discussed in Section 2, ISS and GL provide public information about their SOP voting policies. This information enables firms to make an “informed guess” about the likelihood of receiving a negative voting recommendation before their proxy statement is drafted, and possibly before the fiscal year end. However, an interesting question is whether proxy advisory firms actually make recommendations in a manner consistent with their public disclosures.²⁹

²⁷ The voting decisions of Charles Schwab, Neuberger, Loomis, and Invesco only differed in six cases. In these few cases of disagreement, we code the Glass Lewis SOP voting recommendation using the majority vote across these four funds. As a robustness check, we also coded these differences as missing and obtained virtually identical results.

²⁸ We were not able to construct the *GL_against* variable for 159 companies as the result of missing data in the NPX filings of the target funds.

²⁹ Larcker, McCall, and Ormazabal (2012) find that the ISS public description regarding the metrics used to develop voting recommendations on stock option exchanges is highly consistent with their actual recommendations. Although this might be expected for a relatively simple compensation program, it is not clear whether similar consistency should be expected for the more complicated SOP recommendation.

Based on a reading of ISS and GL material in the public domain, the primary explanatory variable used in the SOP recommendation models is whether a compensation plan exhibits an appropriate relationship of pay-for-performance (*P4P*). Consistent with these disclosures, we construct *P4P* as an indicator variable that equals one (and zero otherwise) if (i) the CEO's compensation increases from 2009 to 2010, (ii) total shareholders' returns in the last year (*TSRIY*) is lower than the median *TSRIY* for companies in the same GICS code, (iii) total shareholders' returns in the last three years (*TSR3Y*) is lower than the median *TSR3Y* among the companies in the same GICS code, and (iv) the CEO's total compensation is above the median compensation of the peer companies (the peer group is defined following ISS's criteria).³⁰ We compute CEO compensation in a manner similar to the ISS and GL guidelines. Specifically, CEO compensation is the sum of salary, bonus, all other compensation, change in the pension value and earnings from non-qualified deferred compensation, non-equity incentive plan payouts, and the grant date value of restricted stock and the Black-Scholes value of stock option grants. For our sample, 13% of the firms fail this pay-for-performance assessment (Table 2, Panel A).³¹

In addition to pay-for-performance (*P4P*), proxy advisors' voting policies include a variety of other criteria. While these additional inputs (e.g., tax gross ups) are very difficult to collect for a large sample, we develop five additional measures that are noted as part of the

³⁰ While both firms (and GL in particular) describe more complicated evaluation algorithms, they do not provide sufficient detail in their public disclosures for us to precisely replicate their approach. While a simplification, our *P4P* variable captures the essential features of the CEO's relative pay and performance described in the proxy advisor policies. As we show in this Section, *P4P* is significantly associated with the voting recommendations of both firms. However, the explanatory power is lower than would be expected if we were able to closely replicate their models.

³¹ As a robustness check, we also construct variants of the pay-for-performance assessment. First, we exclude the condition that *TSR3Y* is lower than the median *TSR3Y* among the companies in the same GICS code. Second, we add the condition that total shareholders' returns in the last five years (*TSR5Y*) is lower than the median *TSR5Y* among the companies in the same GICS code. The results are similar, but weaker, partly because the latter condition induces some sample attrition (200 observations). We use the metric in the text because it is closest to the approach used by ISS and GL.

overall evaluation process by proxy advisory firms. *PayDisparity* is the ratio between CEO compensation and the average compensation of the other named executive officers (NEOs). As presented in Table 2 (Panel A), the mean (median) ratio of CEO pay to average NEO pay is 2.76 (2.51). *PctLTincentives* is the present value of long-term incentives divided by the sum of the present value of both long term and short term incentives. We define long-term incentives as restricted stock, stock options, and incentive plan awards with a performance period greater than one year. Short-term incentives are incentive plan awards with a performance period of one year or less. The mean (median) percentage of total incentives that is long-term in nature is 62% (73%). *PctPBincentives* is the present value of performance-based equity incentives divided by the sum of the present value of both performance-based and non-performance-based equity incentives. Performance-based equity incentives are performance-contingent stock options, restricted stock and stock unit awards, in which the number of shares and/or the vesting event is contingent upon the firms' performance. Consistent with proxy advisory assumptions, non-performance based equity incentives include restricted stock and stock options that are not contingent on company performance. The mean (median) ratio of performance-based to non-performance-based equity incentives is 32% (0%). *nPM* is the number of performance measures used in performance-based long-term incentives awarded to the CEO. The mean (median) number of measures is 2.39 (2.00). Based on the public disclosures and commentaries by proxy advisory firms, we expect *P4P*, *PayDisparity* to have a positive association with the probability of receiving a negative SOP recommendation, and *PctLTincentives*, *PctPBincentives* and *nPM* to have a negative association with the probability of receiving a negative SOP recommendation.

Proxy advisors can also include other factors into their recommendations that are not publicly disclosed or difficult to quantify (e.g., “analyst expertise”). In an attempt to partially

address this measurement or model specification problem, we include two additional variables in our analysis. We measure ISS degree of concern about the firm's compensation practices using their compensation GRId score.³² Specifically, *GRId_comp* equals one, two, or three if the compensation GRId score computed by ISS is labeled as "high risk", "medium risk", and "low risk", respectively. ISS considers 21% of our sample companies to be "high risk." We also measure an assessment of general governance practices using *WithholdRec* which is computed as the number of "withhold" or negative recommendations issued by ISS on directors of the company in the *previous* proxy vote. The mean (median) number of withhold recommendations is 0.13 (0.00).

4.3. Results

To test whether the SOP policies disclosed by proxy advisors are associated with their recommendations we estimate the following probit regressions:³³

$$Against = \delta_0 + \delta_1 P4P + \varepsilon, \quad (1a)$$

$$Against = \delta_0 + \delta_1 P4P + \theta OtherCriteria + \varepsilon, \quad (1b)$$

where *Against* is either *ISS_against* or *GL_against* and *OtherCriteria* include *PayDisparity*, *PctLTincentives*, *PctPBincentives*, *nPM*, *GRID_comp*, and *WithholdRec*.

The estimation results for equations (1a) and (1b) are presented in Table 3 (Panel A and B show results of ISS and GL recommendations, respectively). The statistically positive coefficients of *P4P* in both panels indicate that proxy advisory firms rely on their stated pay-for-

³² GRId (which stands for "Governance Risk Indicator") was the ISS rating system to assess governance risk in 2011. The GRId score provided one of three ratings ("Low Risk", "Medium Risk", and "High Risk") in four governance categories (Audit, Board, Compensation and Shareholder Rights). ISS stated that they measured "long-term governance risk," but did not provide further detail on exactly what governance risk is or what outcomes would be associated with that risk. We collect GRId scores from publicly available sources (e.g., <http://finance.yahoo.com/>) in June of 2011.

³³ Firm level subsamples have been suppressed throughout the text. Unless noted otherwise, all regressions are cross-sectional analyses. We also estimate equations (1a) and (1b) using logistic regressions and OLS and obtain very similar results.

performance criterion to issue SOP voting recommendations. However, the explanatory power for this *P4P* model is relatively modest (approximately 14% and 3% for ISS and GL, respectively). The marginal effects of *P4P* on *ISS_against* and *GL_against* are, respectively, 24% and 20%, which means that, on average, meeting the *P4P* criteria is associated with roughly a 20% increase in the probability of obtaining a favorable recommendation.

When other potential criteria for the voting recommendation are included in the specification, the explanatory power improves to approximately 21% and 9% for ISS and GL, respectively. As expected, we also find that *PayDisparity* and *WithholdRec* have positive coefficients for both the ISS and GL models. *GRID_comp* exhibits a negative coefficient, suggesting that the higher ISS rates the firm's compensation practices, the more favorable the SOP voting recommendation. As expected, the coefficient on *PctPBincentives* is negative, although not statistically significant. Thus, consistent with their public disclosures, pay-for performance and selected other criteria are statistically important determinants of the proxy advisory SOP recommendations. The results in Table 3 are important because they provide insight about what changes firms can make to reduce the probability of obtaining a negative recommendation.

5. Vote Outsourcing to Proxy Advisors

5.1 Shareholder voting outcomes

We compute the voting support of the SOP proposals (*PctSupport*) as the percentage of votes *in favor* of the SOP proposal based on each firm's reported voting outcomes. For example, some firms report percentage of votes in favor with respect to the sum of votes in favor and against, while other firms also include abstentions (exchange rules prevent broker non-votes from being counted as votes in favor of SOP, and they are typically excluded from the SOP

voting results altogether).³⁴ We also identify firms that failed to obtain a majority support for their SOP proposals using an indicator variable (*Fail*), that takes the value of one if $PctSupport < 50\%$ and zero otherwise. Most companies obtained a very high percentage of favorable votes for their initial SOP vote. Specifically, the mean (median) SOP proposal was backed by 90.6% (95.3%) of the votes. Only a small percentage (1.6%) failed to obtain majority support from shareholders (Table 2, panel A).

5.2 Proxy advisory firm influence

Boards of directors are likely to respond to proxy advisory firms only when they can actually influence substantial numbers of shareholder votes. If the firm has very limited institutional ownership, ISS and GL recommendations might be largely irrelevant to the board of directors.³⁵ Similarly, if institutional investors do not follow proxy advisory firm recommendations, these firms will have limited influence on the company. In order to incorporate these features into our analysis, it is necessary to develop a measure for the likely influence of proxy advisors on the voting by institutional shareholders for each firm confronting a SOP vote.

Using voting data from the ISS Voting Analytics database, we compute for each firm the expected percentage of institutional votes that will follow ISS voting recommendations (*ISS_influence*). We first calculate the proportion of times that each institution holding shares in a given firm votes with ISS when there is *disagreement* with management on any proposal from

³⁴ To compute the percentage support to shareholder proposals, 50.79% of our sample companies divide the number of votes in favor of the proposal by the sum of the votes in favor and against the proposal, 48.71% include the abstentions in the denominator, and 0.51% uses the total number of shares outstanding in the denominator. To ensure that our results are not sensitive to this cross-sectional variation in reporting voting results, we re-estimate equation (2) applying each one of these three ways of measuring voting support to all sample firms. Our inferences do not change.

³⁵ This statement may not be true if individuals comprise a large percentage of shareholders and they are influenced by proxy advisory firms. However, individuals do not generally have easy access to the ISS and GL SOP recommendations because they are not typically publicly disclosed and subscriptions to the reports may be expensive to individual who do not realize the compliance benefits of the proxy advisors.

2003 to 2010 in the ISS Voting Analytics database. We then collect the percentage ownership of the firm for each institution from the Thomson-Reuters Mutual Fund Holdings database of N30-D filings.³⁶ Finally, we multiply each institution's percentage ownership in the firm at the end of fiscal year 2010 by that institution's implied probability of voting with ISS if there is disagreement between the management and ISS. *ISS_influence* for a specific firm is the sum of the resulting measures across all institutions holding shares in that firm.

The mean (median) value of our measure of ISS influence is 8.84% (8.40%). This influence level is lower than the observed influence on the average vote outcome because not all users of proxy advisor services are captured in the cross section of the Voting Analytics and Thomson-Reuters databases. For example, pension funds or university endowments may subscribe to proxy advisors' services, but because they are not mutual funds, they are not required to report their voting record on Form NPX. Nonetheless, these values confirm that a sizable percentage of institutional votes follow ISS recommendations in cases of disagreement with management recommendations. In principle, it is possible to construct a similar influence measure for GL. However, since historical GL recommendations on all proposals are not available, we are not able to compute a similar GL influence measure.

We also use the percentage of firm shares owned by institutions (*PctInstit*) as alternative proxy for the influence of proxy advisors in the firm. We compute this variable collecting data from the Thomson-Reuters database of 13-F filings. Although this variable does not capture the propensity of institutional shareholders to follow proxy advisors' recommendations (because voting data is not publicly available for all institutions), it includes holdings by institutions other than mutual funds that could also be subject to proxy advisory influence.

³⁶ This database is also referred to as CDA/Spectrum S12 mutual fund holding database. The Spectrum data file contains information on quarterly equity holdings for mutual funds registered with the SEC.

5.3 Results

To assess the impact of ISS and GL on SOP votes, we estimate (using double-censored regression and the variables previously defined) various forms of the following general model:

$$PctSupport = \delta_0 + \delta_1 ISS_against + \delta_2 ISS_influence + \delta_3 ISS_influence \times ISS_against + \varepsilon. \quad (2)$$

The estimated intercepts in Table 4 (Panel A) show that firms with a positive recommendation from ISS and low ISS influence on institutional shareholders receive well in excess of 90% favorable votes. In column (1), the coefficient on *ISS_against* is -0.25 (t-stat. = -25.68) which suggests that a negative ISS recommendation decreases the percentage of favorable votes by about 25%. This estimate, along with the high explanatory power of this model (Pseudo $R^2 = 49.21\%$) is consistent with the interpretation that ISS recommendations exert a substantial influence on SOP shareholder voting. However, the results in column (3) reveal that the effect of a negative recommendation significantly depends on the proxy advisor's influence on the company. Specifically, the interaction between *ISS_influence* and *ISS_against* is -0.01 (t-stat. = -6.67). This estimate suggests that, conditional on receiving a negative ISS SOP recommendation, two firms in the 25th and 75th percentile of *ISS_influence* (5.18 and 11.84, respectively) will exhibit a difference of 6.66% in voting support for their SOP proposals. Table 4 also shows that the results are similar when *PctInstit* is used as alternative proxy for proxy advisory influence, which suggests that it is unlikely that our inferences are confounded by measurement error in our measure of proxy advisory influence.

For reasons discussed above, we cannot estimate equation (2) using a direct measure of GL influence. However, we find that a negative GL recommendation is statistically associated with an 18% decrease in favorable SOP votes (Table 4, Panel B). When both ISS and GL recommendations are included in the model, both coefficients are negative and statistically

significant. The estimated coefficients suggest that when both ISS and GL have negative SOP recommendations, the favorable votes for SOP decrease by approximately 34%. Finally, when we use *PctInstit* as an indirect measure of GL influence, we find in column (3) that voting outcomes are increasingly negative when institutional ownership is higher. Overall, the results in Table 4 provide evidence that proxy advisory firm recommendations can substantially shift SOP votes.³⁷

6. Board of Director Responses to Proxy Advisors Policies

6.1 Compensation changes before ISS recommendations

Using the discussion in Sections 2 and 4, we first identify compensation plan changes that are unambiguously viewed as positive practices in the context of the proxy advisory firm SOP voting policies. We exploit the fact that any new or substantially changed executive compensation plan must be publicly disclosed on SEC Form 8-K. This regulatory requirement provides an explicit announcement date for estimating excess returns associated with compensation plan changes.³⁸ An important advantage of this date is that 8-K filings only include the items or transactions being reported and the associated announcement date is less confounded with other information than periodic reports such as 10-Ks and proxy statements. However, since executive compensation changes are likely to be an outcome of board meetings, it is possible that the 8-Ks are confounded by other decisions being reported from the same meeting. For this reason, we limit our sample to 8-Ks that do not contain other non-

³⁷ In untabulated results, we also find that ISS influence increases the probability of failing to obtain majority support given a negative recommendation. Specifically, in a probit regression of *Fail* on *ISS_influence* for the firms that receive a negative ISS recommendation, we find that the coefficient on *ISS_influence* is 0.07 (t-stat. = 3.72). The marginal effect and the effect at the mean for *ISS_influence* are, respectively, 1.37% and 1.52%. Using the same subsample of firms, we also regress *Fail* on *GL_against*. The coefficient on *GL_against* is 1.74 (t-stat. = 4.51). The marginal effect and the effect at the mean for *GL_against* are, respectively, 28.6% and 24.41%. These results confirm that GL recommendations also determine the probability of failing the SOP proposal.

³⁸ Pursuant to the Form 8-K General Instructions (<http://www.sec.gov/about/forms/form8-k.pdf>), if an 8-K is required, it must be filed or furnished within four business days after the occurrence of the event.

compensation related information (discussed below). If these changes are induced by proxy advisors, the observed excess return can be interpreted as the impact of proxy advisory firm SOP policies and voting recommendations on shareholder value.

We collect compensation changes reported on form 8-K during the eight months prior to the 2011 proxy statement release date for our sample. This window was chosen for two reasons. First, changes in months closely following the prior year's annual meeting could be a response to the previous year's annual meeting and thus unrelated to future SOP considerations. Second, as most of our sample is comprised of firms with calendar fiscal year ends, the eight month window starts approximately at the same time as Dodd-Frank was signed into law (July, 2010).

Since we are interested in the market's reaction to compensation disclosures, we also exclude 8-Ks that include other important events such as executive hires or terminations and/or announcements related to other governance mechanisms (e.g. auditor changes or removal of a poison pill), which might confound our results.³⁹ To execute this data collection, we utilize a comprehensive database of 8-K filings from Equilar, Inc., which includes a categorization of the contents of each 8-K, allowing us to identify the subset of 8-K filings that meet our criteria. This selection procedure produces a sample of 733 8-Ks for our 2,008 firms, with 606 firms having at least one 8-K (the maximum number of 8-Ks for a single firm is three).

Each 8-K filing was read and compensation features that are unambiguously aligned with proxy advisor policies were identified. Specifically, we determine whether each 8-K discloses any of the following (see Appendix A for examples and the rationale for these choices):

additional restrictions to equity plan(s) (10 observations), amendments to outstanding equity

³⁹ Because firms often aggregate compensation decisions (for instance, base salary, bonus and performance-based equity awards may be determined at the same time) it is not possible for us to confine the sample to only changes that are favored by proxy advisors. We utilize a sample of out-of-period filings to mitigate the concern that such decisions are confounding our results.

awards to add performance-based vesting or other holding requirements (1), new cash long-term incentive award(s) (21), reduction in CEO cash compensation (5), implementation of a clawback policy (6), amendments to change of control plan(s) (117), new performance-based equity award(s) (157), and reductions in executive perquisites and benefits (12). We construct the variable *PA_Aligned* (“PA” is shorthand for proxy advisor) as the number of these compensation changes announced in each 8-K. We set *PA_Aligned* equal to zero if either there are no 8-Ks in our sample or the compensation changes are not those we have identified as being unambiguously aligned with proxy advisor SOP policies. For our sample of 8-Ks, *PA_Aligned* equals three in 2 cases (0.27%), two in 28 (3.82%) cases, one in 267 (36.43%) cases and zero in 436 (54.48%) cases. It is important to note that the absence of a proxy advisor aligned feature does not necessarily imply that the compensation announcement in the 8-K would be viewed negatively in the proxy advisor models. Many common items, such as awarding of salary increases, determination of bonus payouts and determination of bonus performance objectives could be either good or bad in the context of the compensation and performance outcomes. Other items, such as minor amendments to plans or contracts to reflect tax or other legal changes may not enter into the evaluation.

Although the compensation changes used to construct *PA_Aligned* are considered desirable by proxy advisory firms, this does not necessarily imply that these changes are actually induced by ISS and GL. However, if these compensation changes are correlated with the likelihood that a firm will receive a negative SOP recommendation, this will provide some evidence that the changes are actually influenced by proxy advisors. The crucial assumptions for this interpretation are that the board of directors has a reasonable idea about the likely forthcoming SOP recommendation and that they believe that these changes during the time period prior to the

proxy statement release in order to improve the ultimate SOP recommendation produce a net economic benefit for shareholders. That is, the cost of changing the compensation plan is less than the cost of receiving substantial negative SOP votes. This assumed behavior is consistent with the results of the recent survey conducted by The Conference Board, the Stanford Rock Center, and NASDAQ (2012) which finds that most firms reviewed proxy advisor policies and that those policies influenced their ultimate compensation programs presented to shareholders for the SOP vote.

To explore this possibility we compare key characteristics for firms that make proxy advisor aligned compensation changes previous to the 2011 annual meeting to the remainder of the sample firms. Specifically, we focus on *P4P* because it is a primary determinant of the SOP recommendation (see Table 3) and *ISS_influence* because it (along with the SOP recommendation) has a substantial impact on shareholder voting (see Table 4). We also include *PctInstit* as alternative proxy for proxy advisory influence.

Table 5 (panel A) compares descriptive statistics of these variables for the 275 firms that filed 8-Ks disclosing proxy advisor aligned compensation changes in the 8 months before the proxy filing to the remaining 1,733 sample firms. We observe that there is a significantly higher proportion of firms that did not meet the *P4P* criterion among the firms that disclosed proxy advisor aligned compensation changes compared to the rest of sample firms. Table 5 also shows that, compared to the remainder of the sample, firms that disclosed proxy advisor aligned compensation changes exhibit higher levels of proxy advisory influence (measured by *ISSinfluence* and *PctInstit*). These results suggest that compensation changes desired by proxy advisors are more frequent in firms that are otherwise more likely to receive a negative SOP recommendation and where proxy advisors have substantial influence on shareholders.

Table 5 (panel A) also compares descriptive statistics of the previous variables between firms filing proxy advisor aligned 8-Ks and firms that filed compensation 8-Ks that did not contain any of the proxy advisor aligned characteristics. This analysis provides insight into the specific subsample of firms that we know have made changes that align their compensation with proxy advisor policies. Table 5 shows that the differences between these two groups are very similar to those described previously. These results reinforce the idea that not meeting proxy advisor's criteria leads to specific changes that are aligned with proxy advisor criteria, as opposed to a general set of compensation changes.

One important concern about the results in Table 5 (panel A) is that the identified pattern for compensation changes might be a usual phenomenon that occurs before every shareholder meeting, and thus not necessarily related to the SOP vote. To assess this concern, we take a random sample of 773 8-Ks from previous fiscal years (from 2006 to 2010) and examine whether this pattern of compensation-related 8-Ks is also found in previous years.⁴⁰ We then read and manually code each 8-K with the same criteria used for the 2011 sample of 8-Ks: additional restrictions to equity plan (7 observations), amend outstanding awards (0), new cash long-term incentive plans (29), reduction in cash compensation (22), clawback (6), changes/amendments to change of control plans (23), new performance-based equity plans (124), and reduce benefits (22). The most substantive difference between the two samples is the larger number of adjustments to change of control plans in the more recent time period. The most frequent change is the adoption of new performance-based equity plans in both time periods. For this random sample, *PA_Aligned* is greater than zero in 201 (27%) cases and zero in 532 (73%) cases. Thus, in the random sample from the 2006-2010 proxy seasons, there are substantially

⁴⁰ We code the randomization algorithm in a way that the random sample has the same number of 8-Ks every year and the same number of firms as the 2011 sample of 8-Ks.

fewer proxy advisor aligned 8-Ks than in the sample of 8-Ks from the 2011 proxy season (27.28% between 2006 and 2010 versus 40.51% in 2011).

In contrast to the results for the 2011 proxy season, *P4P* and *ISS_influence* are not significantly different between 8-Ks announcing proxy advisor friendly compensation changes and 8-Ks announcing other types of compensation changes. The results in Table 5 (Panel B) provide support for the interpretation that the time period prior to the first SOP vote exhibits unique compensation plan changes that are related to concerns about receiving a negative SOP recommendation from proxy advisors.

6.2 Compensation changes and subsequent ISS recommendations

Another crucial assumption for our claim that companies are making compensation plan changes in response to proxy advisors is that these changes should improve the chances of obtaining a more favorable recommendation. To provide some evidence on this issue, we examine whether making compensation changes that conform to proxy advisors' criteria decreases the probability of obtaining a subsequent negative SOP recommendation. We do this by estimating the following probit regression:

$$ISS_Against = \delta_0 + \delta_1 Sum_PA_Aligned + \delta_2 P4P + \varepsilon, \quad (3)$$

where *Sum_PA_Aligned* is the sum of *PA_Aligned* (i.e., the total number compensation changes disclosed on 8-K during the eight months previous to the 2011 proxy statement that are aligned with proxy advisors' policies).⁴¹ We include *P4P* as a control for the likely proxy advisory firm recommendation if there were no compensation changes by the firm (i.e., if a firm fails *P4P*, they are likely to obtain a negative SOP recommendation). We find that the coefficient on

⁴¹ For the sample of firms, *Sum_PA_Aligned* equals three in five cases (0.25%), two in 44 (2.19%) cases, one in 226 (36.43%) cases and zero in 1733 (86.30%) cases. Note that *Sum_PA_Aligned* is measured at firm level, whereas *PA_Aligned* is measured at 8-K level. Thus, the distribution of *Sum_PA_Aligned* differs slightly from the distribution of *PA_Aligned* compensation because for some firms changes are announced in more than one 8-K.

Sum_PA_Aligned is statistically negative which suggesting that making compensation changes to align compensation programs with proxy advisors' policies reduces the probability of obtaining a negative SOP recommendation (Table 6).

The second set of columns in Table 6 presents results restricting the analysis to firms that actually made some type of compensation change. Specifically, we include the compensation-related 733 8-Ks and test whether the number of changes aligned with proxy advisory policies in each 8-K is associated with a subsequent favorable recommendation from proxy advisors. The results in Table 6 confirm that compensation changes conforming to ISS criteria lead to more favorable SOP recommendations.

6.3 Market reaction to compensation plan changes

To estimate the shareholder value implications of changes in compensation contracts made to comply with proxy advisor SOP voting policies, we examine the stock market reaction at the relevant 8-K filing date. If the threat of receiving a negative SOP recommendation from proxy advisors motivates the board of directors to remove features of compensation contracts that allow executives to extract rents, the market reaction to the announcement should be positive. Alternatively, if the influence of proxy advisor SOP policies motivates firms to deviate from existing optimal compensation contracts, we should observe a negative market reaction.

We examine the market reaction to compensation changes prior the proxy statement release on the day when the company files the 8-K announcing the change.⁴² Our dependent variable, *AdjRet*, is the daily risk-adjusted return on the filing day for each firm computed using

⁴² We analyze 8-Ks that contain only information on compensation changes in order to minimize the chances that the market reaction on that day is confounded by other information. We also examine the twenty 8-Ks with the largest negative reaction and search in Factiva for other potentially confounding information about the firm. We do not identify any informational events that are likely to confound our interpretation of the adjusted returns.

the standard daily Fama-French model plus momentum to compute daily risk-adjusted returns.⁴³ The coefficients of the risk factors are estimated using daily data over a period of -6 to +6 months around the filing date, and the incremental intercept on the 8-K announcement date is used as an estimate of *AdjRet*.

To test whether the stock market reaction to the introduction of compensation changes is associated with the desired criteria of proxy advisory firms, we regress risk-adjusted returns on *PA_Aligned*:

$$AdjRet = \delta_0 + \delta_1 PA_Aligned + \varepsilon \quad (4)$$

In Table 7 (panel A, column 1), we find that the estimated coefficient for *PA_Aligned* is -0.444 (t-stat. = -2.91), whereas the intercept is not statistically different from zero (t-stat. = 0.86). This result is consistent with the conclusion that compensation changes desired by proxy advisory firms produce a net cost to shareholders, while compensation changes not related to proxy advisors' criteria are value-neutral.⁴⁴ The coefficient on *PA_Aligned* also suggests that the cost to shareholders of these changes is economically significant (the estimated average decrease in shareholder wealth is 44 basis points per induced change).⁴⁵ When we repeat this analysis using the random sample of 8-Ks from prior proxy seasons, we find (Table 7, panel A, column 2) that the adjusted returns for compensation changes aligned with proxy advisor policies are not statistically different from zero. (t-stat. = 0.21). Thus, the negative stock market reaction to proxy advisor aligned compensation changes is only observed in the time period just prior to the initial SOP vote. As shown in Table 7 (panel A, column 3), the estimated difference in adjusted returns is -0.488 (t-stat. = -1.91). These results suggest that the observed negative adjusted

⁴³ We obtain similar inferences calculating average risk-adjusted returns within a (0,+1) window around the filing.

⁴⁴ We also estimate the average adjusted return partitioning by *PA_Aligned*. The average adjusted return of 8-Ks where *PA_Aligned* is non-zero (zero) is negative and significant (.positive and not significantly different from zero).

⁴⁵ In untabulated results, we find similar results when value-weight the excess returns.

returns are not some type of general “8-K effect”, but rather are associated with compensation changes made to obtain a favorable SOP recommendation from proxy advisory firms.⁴⁶

A potential concern about these results is that, even in the absence of compensation changes, *PA_Aligned* could be related to daily returns if this variable captures an omitted risk factor or other determinants for cross-sectional returns. To address this concern, we examine whether the negative adjusted returns of firms that make compensation changes related to proxy advisors' criteria are unique to the 8-K filing date. Specifically, we compute the average daily adjusted return for the 30 days before and the 30 days after the 8-K filing date and partition the 8-K sample into those 8-Ks where *PA_Aligned* equals zero and those where *PA_Aligned* is non-zero.⁴⁷ We find that the average adjusted returns of firms that make proxy advisor aligned compensation changes are not systematically lower than those of firms that make compensation changes unrelated to those criteria before (Table 7, panel B, column 1) or after (Table 7, panel B, column 3) the 8-K filing date. Columns 4 and 5 of Table 7, panel B show that the negative return associated with proxy advisor aligned 8-Ks are unique to the 8-K filing date.⁴⁸

6.4 Moving shareholder meeting dates in anticipation of SOP

⁴⁶ Another way to assess the impact of proxy advisor SOP recommendations is to examine the market reaction to contractual changes disclosed *after* receiving a negative SOP recommendation. We have identified a small sample of 12 cases where firms either made changes to their compensation programs or commitments to change future programs after filing their proxy statement in order to garner a positive ISS recommendation and avoid failing the SOP vote. The 12 companies are: Assured Guaranty Ltd., The Walt Disney Company, General Electric, Gannett Co., Lockheed Martin, Alcoa, Collective Brands, The Providence Service Corp, Intermec, Inc., Brandywine Realty Trust, MeadWestVaco, and Interline Brands, Inc. In untabulated results, we find that the average adjusted return within the (-1,+1) window around the day the changes were announced for these observations is -0.30% (t-statistic = -1.01). Although this sample size is small (and the power of the test is limited), this evidence is consistent with our prior results that compensation changes induced by proxy advisory firms have an adverse impact on shareholder value.

⁴⁷ We also repeat the test using shorter- and longer-windows around the 8-K dates and find consistent results.

⁴⁸ We also assess which individual compensation changes induce the most negative adjusted returns. The most common compensation changes are new performance-based equity awards (157 observations) and changes/amendments to change of control plans (117 observations). These two types of changes are associated with negative returns -0.551 and -0.103, respectively. New cash long-term incentive plans exhibit the largest adjusted return (-2.15), but there are only twenty one observations for this category. All types of compensation changes except for reductions in benefits are associated with negative risk-adjusted returns on the day of the announcement.

As discussed in Section 2, a formal SOP vote is required for most companies with shareholder meetings occurring on or after January 21, 2011. If revisions to compensation plans induced by SOP is costly to firms (or, alternatively, personally costly to executives), we should see companies with shareholder meetings in the first calendar quarter that appear likely to receive a negative SOP recommendation moving their annual meeting to before January 21st. We find that the number of firms having their meeting in the few days before January 21st increased dramatically from 2010 to 2011 (see Figure 1). In 2011, 37 companies decided to have their shareholder meeting on one of the four days before January 21st. In contrast, only 7 firms had their shareholder meeting on those days in 2010. Figure 1 also shows that the number of firms having their shareholder meeting on or shortly after January 21st is significantly lower in 2011 than in 2010. This concentration of shareholder meetings immediately before January 21st 2011 suggests that some firms advanced their meetings to avoid being subject to a SOP vote in 2011.

There are 194 firms in the Russell 3000 that had their meeting in the first calendar quarter of 2010. Interestingly, 32 of these firms had the 2010 shareholder meeting *after* January 21st 2010, but their 2011 shareholder meeting *before* January 21st 2011. In contrast, only 4 firms had their 2010 shareholder meeting *before* January 21st 2010, but their 2011 shareholder meeting *after* January 21st 2011. Moreover, we find evidence that the firms most likely to move their annual meeting date are those that are more likely to fail the *P4P* criterion. While 28.12% of the 32 firms that moved their meeting forward did not meet the *P4P* criterion, only 10.30% of the remaining 162 did not meet this criterion. This difference is statistically significant (t-stat. = 2.73), and is further evidence consistent with the idea firms view SOP legislation as costly.⁴⁹

⁴⁹ One of the potential costs of failing to obtain the required support for SOP proposals is that the firms and board members can be sued on grounds of alleged breach of fiduciary duty. After the 2011 proxy season, seven companies

6.5 Alternative interpretations of the results

Performance Signaling

One alternative interpretation of our results is that the market reacts negatively to the announcement of these compensation changes not because the recontracting is suboptimal, but because the change signals poor future performance or is indicative of other governance problems that the market was unaware of. For example, boards might introduce contractual changes because they possess inside information that firm performance will be worse than expected and as a result they impose compensation risk (e.g., performance-based equity) on managers in an attempt to change incentives and future performance. In this setting, the market would interpret the observed recontracting as a negative signal, and this has the potential to confound our conclusion that compensation changes induced by proxy advisors are value decreasing for shareholders.

Although signaling is a plausible alternative interpretation, the available empirical evidence does not support this conclusion. Specifically, prior literature has shown that firms adopting performance-based equity programs have historically realized positive future performance. For example Larcker (1983) finds a positive market reaction to the introduction of performance-based plans and Bettis, Bizjak, Coles, and Kalpathy (2010) find that companies that introduce performance-based features in compensation contracts have lower past stock price performance and significantly better subsequent operating performance than control firms. This

which experienced a SOP voting failure were sued shortly after the shareholder meeting. To the extent that the voting outcome and the subsequent lawsuits were (at least partially) unexpected by the market and the lawsuits are viewed as costly (e.g., either through direct costs related to the suit or the costs associated with management distraction), the market reaction to these events can also provide some insight into the cost implications of the SOP voting recommendations. In untabulated results, we find that the stock market reaction for firms involved in a SOP lawsuit is -0.50% (t-stat. = -1.58). Although this result should be interpreted cautiously because of the small number of observations (and reduced statistical power), it suggests that a negative SOP recommendation and a subsequent voting failure can impose substantial costs on affected.

evidence suggests that the adoption of performance-based equity plans (if anything) should be a signal of future good performance, as opposed to bad performance.

To provide further evidence on this point, we estimate a regression of future firm performance (calculated as the average of quarterly earnings deflated by total assets over the four quarters ending after the filing date of the 8-K) on the explanatory variables in equation (4). In untabulated results, we find that the coefficient on *PA_Aligned* is *positive* and not statistically significant (t-stat. = 0.59). This result is not consistent with the negative signaling explanation.

Another related way to provide insight into the signaling story is to examine the timing of the 8-K filings. As discussed in Section 2, shareholder return, measured at the end of the firms' fiscal year, is the primary measure of firm performance used by proxy advisory firms. Our analysis, on the other hand, considers 8-Ks filed in the 8 months prior to the proxy statement filing date, which is typically three to four months after the fiscal year end. As a result, 84.5% of our proxy advisor aligned 8-K observations occur *after* the fiscal year end when the relevant market returns are already known. If our findings were driven by a negative signaling effect, the negative reaction should be concentrated in the observations *prior* to the fiscal year end. However, out of the 297 filings with a potential SOP recommendation problem (i.e., where the variable *PA_aligned* = 1), only 46 are filed *before* the fiscal year end date, and the average risk-adjusted return for these 8-Ks is a statistically insignificant -0.27% (t-stat. = -1.17). In contrast, the average risk-adjusted return of the 251 changes announced *after* the fiscal year end is a statistically significant -0.35% (t-stat = -1.90).⁵⁰ These results suggest that the negative reaction is concentrated in 8-Ks filed *after* the fiscal year end, and thus the contractual change does not appear to be signaling negative performance for this fiscal year.

⁵⁰ In contrast, for the subset of 8-Ks with *PA_aligned* = 0 only 73 are filed *after* the fiscal year end date. The average risk-adjusted returns of 8-Ks filed both before and after the fiscal year end are positive, but not statistically significant.

Market Expectations of Compensation Changes

Our interpretation of the negative risk-adjusted return associated with compensation changes induced by proxy advisors is that unexpected and unfavorable information is released to the market at the 8-K announcement date. However, a concern with this explanation is that investor expectations about proxy advisor and board behavior are unknown. Conceptually, the observed risk-adjusted return should be the difference between the value of the observed change and the value of the compensation change (if any) expected by the market. This means that the market must have an expectation about the value of a future compensation change and the probability that this change will occur. Moreover, both of these variables are likely to be influenced by the probability that the proxy advisory firm will make a negative recommendation, expected costs of having a substantial number of against votes, and expected cost of changing the compensation program. There are several reasons to believe that this is an especially difficult inference problem for the market.

One complicating factor is that the market must develop an accurate expectation about proxy advisor recommendations *prior* to the 8-K filing event, which is (by construction) prior to the proxy statement. As we show in Table 3, it is very difficult to infer the proxy advisor recommendations even after considering a substantial portion of information that is available in the proxy statement. At the time of the 8-K, there is considerably less information available for investors to make an inference (for instance, proxy advisors evaluate the quality of proxy statement disclosures, which is not known until the proxy statement is actually filed). This raises serious questions about the market's ability to reasonably forecast proxy advisory firm SOP recommendations.

Even if the market can develop an accurate forecast for the recommendation, it is still necessary to estimate the expected costs of negative votes and the valuation of changes in the compensation plan which would lead to positive vote. It may be reasonable to assume that litigation costs or management distraction can be assessed by the market. However, private costs such as reputational concerns associated with a negative voting outcome and the expected costs (or benefits) resulting from a compensation change are likely to be very difficult for the market to assess. Thus, although not completely satisfactory from a pure theoretical perspective, we believe that as a practical matter the market's expectation for changes at the 8-K announcement date are likely to be quite diffuse.

Holding aside this conjecture about market expectations, it is possible that the market correctly anticipates that the firm will be exposed to the influence of the proxy advisors. Moreover, proxy advisor policies may be value increasing to shareholders, but the market is disappointed by the changes observed at the 8-K announcement (i.e., the changes do not “go far enough” to address compensation problems at a firm). In this scenario, we should observe a negative market reaction even though this outcome has nothing to do with suboptimal compensation changes being induced by proxy advisory firms.

The difficulty with this alternative interpretation is that it is based on a market that has biased expectations for SOP responses by firms. As discussed above, we expect the market to be faced with considerable difficulty in estimating the influence of proxy advisors, but there is no obvious reason for the market to make systematically biased estimates of expected compensation changes by firms. Moreover, under this interpretation the most negative market response should be observed for firms that exhibit pay-for-performance concerns ($P4P = 1$) and have 8-K announcements with compensation changes that are *not aligned* with proxy advisor policies. In

untabulated results, we find a statistically insignificant positive mean risk-adjusted return for this subset of firms (t-stat. = 0.07). Thus, we do not believe that the interpretation of our results is completely confounded by economic issues related to market expectations.

Rent-Extracting Compensation Changes

It is also possible that the compensation changes are being made by rent extracting managers seeking to avoid market discipline that may be imposed on them after the SOP vote. For example, as illustrated in Table 6, the proxy advisor aligned changes reduce the likelihood of a negative recommendation and receiving a positive recommendation ensured a passing SOP vote. If boards and managers making compensation changes are actually engaging in rent extraction and the market correctly anticipates that they have reduced the likelihood of facing market discipline by conforming to proxy advisor policies, the market would be expected to reduce the value of the firm. Although the mechanism by which the shareholders are harmed is different than our interpretation, we reach the same conclusion that the proxy advisor policies are not value increasing for shareholders.

7. Summary and Concluding Remarks

Institutional investor voting on corporate proxies has the potential to influence a wide range of firm corporate governance choices. Over the past decade, the SEC and Congress have increased regulation focused on institutional investors voting. An explicit assumption in this regulation was that institutional investors would conduct the research necessary to vote in a manner that would maximize value for all firm shareholders. Unfortunately institutional investors face a classic free rider problem in conducting this research and may not have economic incentives to make such an investment. A significant proportion of institutional investors rely on proxy advisory firms to conduct research and determine votes on their behalf.

This outsourcing of voting responsibilities can be an efficient means of sharing the costs of research across investors. However, if the free rider problems sufficiently dilute the benefits to individual institutions, it is also plausible that the outsourcing of voting responsibilities to institutional investors represents the lowest cost voting compliance mechanism. In such a setting investors are unwilling to pay more for better research into optimal vote decisions because their vote is not expected to have an impact on the voting outcome and there is no additional benefit such as using the research to impact the stock selections made by portfolio managers.

The fundamental question is whether outsourcing votes to proxy advisors creates or destroys value for firm shareholders. This is important in the current environment because, unlike the individual institution which may only control a small block of shares, proxy advisors aggregate a large block of votes which will follow their recommendations (34% on average for our sample). As such, proxy advisors can be pivotal in the outcome of a given ballot item and induce firms to make governance changes in response. If these voting recommendations are optimal, changes in firms induced by these policies will improve firm governance and benefit shareholders. However, if the policies are arbitrary and/or not optimal, they may induce boards of directors to change to less appropriate governance structures.

We examine the shareholder value implications of outsourcing to proxy advisory firms on the recent requirement to implement Say-on-Pay. Using a large cross-section of firms, we confirm that proxy advisory firm recommendations have a substantive impact on SOP voting outcomes. We also find that, anticipating this impact, a significant number of boards of directors change their compensation programs in the time period *before* the formal shareholder vote in a manner that better aligns compensation programs with the recommendation policies of proxy advisory firms and subsequently realize a higher likelihood of a positive vote recommendation.

We interpret our result as evidence that boards of directors change executive compensation plans in order to avoid a negative SOP recommendation by proxy advisory firms, and thereby increase the likelihood that the firm will not fail the vote (or will garner a sufficient level of positive votes). The stock market reaction to these compensation program changes is statistically *negative*. Moreover, this effect is unique to the time prior to the initial SOP vote (2011) and a similar stock market reaction is not observed during the 2006-2010 time period.

As with all observational studies, there are a variety of alternative interpretations of this result. However, we believe the most parsimonious and plausible conclusion is that the confluence of free rider problems in the voting decision, regulation of voting in institutional investors, and the decision by the SEC to regard proxy advisor policies as appropriate for purposes of institutional investor compliance with regulation has led to policies of proxy advisory firms that induce the boards of directors to make compensation decisions that *decrease* shareholder value. While our findings provide insight into the shareholder value implications of outsourcing proxy research in the current economic and regulatory setting, we acknowledge that we cannot make inferences about the social welfare implications of the current regulatory regime relative to alternatives such as a prohibition on proxy advisory firms or a reduction in items presented to shareholders for vote.

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Appendix A. Compensation changes aligned with proxy advisor' voting policies

Feature	Description	Rationale
<i>New Performance-Based Equity Plan</i>	The award of equity compensation (stock options, restricted stock or restricted stock units) in which the vesting event and/or the number of shares earned is contingent on the achievement of pre-determined performance objectives where comparable awards were not granted in the prior fiscal year.	ISS' policies explicitly consider the performance-based vs. non-performance-based pay ratio. Equity awards that do not have performance contingencies are not considered performance-based (ISS 2011a). GL views the lack of performance-based long-term incentives as a concern which was cited in 41% of its negative recommendations.
<i>New Cash Long-Term Incentive Plan</i>	Award of new cash bonus opportunities in which the bonus is earned based on the achievement of performance objectives measured over a period greater than one year where comparable awards were not granted in the prior fiscal year.	ISS' policies explicitly consider the performance-based vs. non-performance-based pay ratio. Equity awards that do not have performance contingencies are not considered performance-based (ISS 2011a). GL views the lack of performance-based long-term incentives as a concern which was cited in 41% of its negative recommendations. Also, because cash-based plans are included as compensation when they are <i>earned</i> rather than when they are <i>awarded</i> in both the ISS and GL computations of pay, a new long-term cash plan will reduce pay in the current year relative to a comparable equity award.
<i>Restrict Existing Equity Plan(s)</i>	Amendments to existing equity compensation programs that restrict or eliminate features that are in the approved plan, including mandating minimum vesting periods, prohibiting stock option repricing without shareholder approval and reducing the number of shares available for grant under the plan.	ISS and GL oppose stock option repricings conducted without shareholder approval (Larcker, McCall, and Ormazabal, 2012). GL indicates that equity awards should be subject to minimum vesting period (Glass Lewis 2011a). Both ISS and GL measure equity plans using proprietary measures of the total plan dilution, which includes both outstanding equity awards and awards that can be granted under the plan (ISS 2011a, Glass Lewis 2011a).
<i>Amend Outstanding Equity Awards</i>	Amendments to previously awarded equity that are not advantageous to the recipient, including extending vesting periods, adding shareholding requirements and adding performance conditions to the awards.	Neither ISS nor GL consider stock options or restricted shares with time-based vesting to be performance-based. Both ISS and GL view stock ownership guidelines and holding requirements as good compensation practices (ISS 2010, Glass Lewis 2011a).

Appendix A. Compensation changes aligned with proxy advisor' voting policies (cont'd)

Feature	Description	Rationale
<i>Eliminate "Poor" Features From Change in Control Agreements</i>	Amendment of existing agreements or the disclosure of new agreements that eliminate excise tax gross-ups or that eliminate single-trigger provisions (that provide payment to an executive without that executive having been involuntarily terminated).	Both ISS and GL oppose excise tax gross-ups and single trigger agreements (ISS 2011a, Glass Lewis 2011a).
<i>New Clawback Arrangement</i>	Implementation of a "Clawback" policy, which provides for recoupment of compensation if it is deemed to have been inappropriately earned (e.g., due to restatement).	ISS examines whether a firm has a Clawback policy as part of its Compensation Committee Communication & Effectiveness evaluation. GL considers Clawback policies a "best practice" (Glass Lewis 2011a) and highlighted the lack of a Clawback policy in a significant number of their negative recommendations (Ertimur, Ferri, and Oesch, 2013).
<i>Reduction or Elimination of Executive Benefits</i>	A reduction in or elimination of benefits or perquisites available only to senior executives(e.g., use of corporate aircraft, automobile payments, financial planning, supplemental retirement plans and supplemental insurance plans). Also includes the elimination of tax gross-up payments associated with executive benefits.	The value of executive benefits is captured in the computation of compensation for both ISS and GL. ISS provides detailed review of executive benefits in its Non-Performance-Based Pay Elements analysis (ISS 2011a). Both ISS and GL oppose the payment of taxes due to executives for the receipt of benefits (ISS 2011a, GL 2011a).
<i>Reduction in CEO Cash Compensation</i>	A reduction to the CEO's salary or to the target bonus opportunity.	Both ISS and GL compare a firms CEO pay levels and firm performance to industry peers in order to determine the pay/performance alignment under their proprietary analyses. For poor performers, one way to align the pay with performance is to reduce the level of pay.

Appendix B. Example disclosures of compensation changes aligned with proxy advisor' voting policies

New performance-based equity plan:

“The final component of the 2011 equity awards consists of performance units. Fifty percent (50%) of the performance units will vest on March 15, 2013, and the remaining fifty percent (50%) will vest on March 17, 2014, subject to the provisions of the Performance Unit Award Agreement. The number of performance units awarded will be adjusted based on the achievement of RONO (our Adjusted Operating Income divided by the sum of average Property, Plant and Equipment, average Goodwill and Other Intangible Assets, and average Operating Working Capital). RONO will be measured for the period beginning on January 1, 2011, and ending on December 31, 2012. Target RONO is 10.0%.”

Source: Boise Inc. SEC Form 8-K, March 18, 2011.

New cash long-term incentive plan:

“SUPERVALU INC. (the “Company”) finalized a long-term incentive program for the Fiscal 2012-2014 performance period pursuant to which participants, including the Company’s named executive officers, will be eligible to receive incentive compensation based on the increase in the Company’s market capitalization during the performance period, if any, using a fixed number of common shares outstanding. The maximum amount of increase in the Company’s stock price is capped at \$25, and the maximum percent of the increase in market capitalization that will be paid to all participants will be 4.8% of such increase. The Company’s top 800 employees will be eligible for a share of the payments, if any, under the program. The program provides for a minimum, performance-based payout opportunity equal to 25% of the target award value assuming \$5.7 billion or more of EBITDA is generated over the three-year performance period. Payments under the program, if any will be made half in cash and half in shares of the Company’s stock following the end of the performance period. The three-year measurement period aligns with the estimated time to fully realize the business transformation currently underway at the Company.”

Source: SUPERVALU INC., SEC Form 8-k, April 28, 2011.

Restrict existing equity plan(s):

“Termination of Option Buyout Provisions in Equity Plans. On January 28, 2011, the Board of Directors of The Progressive Corporation (the “Company”) approved the Third Amendment to The Progressive Corporation 2010 Equity Incentive Plan (the “Plan”) and the Third Amendment to The Progressive Corporation 2003 Incentive Plan (together, the “Amendments,” copies of which are attached hereto as Exhibits 10.1 and 10.2, respectively). Under each of these plans, prior to the Amendments, the Company had the authority to buyout certain outstanding stock option awards (and, in the case of the 2010 Equity Incentive Plan, stock appreciation rights), on terms and conditions acceptable to the Compensation Committee of the Board of Directors. In each case, the Amendments have modified the applicable plan to terminate the Company’s authority to buyout such outstanding stock options and stock appreciation rights.”

Source: The Progressive Corporation, SEC Form 8-K, filed February 2, 2011.

Amend outstanding equity awards:

“On October 29, 2010, SYNEX Corporation (“SYNEX”) amended the restricted stock unit award (the “RSUs”) granted to each of Dennis Polk, SYNEX’ Chief Operating Officer, and Peter Larocque, SYNEX’ President, U.S. Distribution (each, an “Officer”). Subject to certain conditions, the RSUs will continue to vest in full on the fifth anniversary of April 29, 2010 (the “Original Grant Date”). A portion of the RSUs will vest upon the fourth and fifth anniversary of the Original Grant Date provided that the Officer remains in continuous employment by SYNEX through the vesting date. An additional portion of the RSUs will vest on the fourth and fifth anniversary of the Original Grant Date provided, that (i) the Officer remains in continuous employment by SYNEX through the vesting date and (ii)(A) on the fourth anniversary of the Original Grant Date, SYNEX achieves on a cumulative basis, 5% compound annual growth rate (“CAGR”) in earnings before income and taxes (“EBIT”) from continuing operations in fiscal years ending November 30, 2011 through 2013, and (B) on the fifth anniversary of the Original Grant Date, SYNEX achieves on a cumulative basis, 5% CAGR in EBIT from continuing operations in fiscal years ending November 30, 2011 through 2014. In the event of an Officer’s death prior to the fifth anniversary of the Original Grant Date, SYNEX will transfer to such Officer’s estate the number of shares that would have vested on an annual basis on or prior to such Officer’s death. The amended form of stock unit agreement is filed herewith as Exhibit 10.1.”

Source: SYNEX Corporation, SEC Form 8-K filed November 4, 2010.

Appendix B. Example disclosures of compensation changes aligned with proxy advisor' voting policies (cont'd)

Eliminate “poor” features from change in control agreements:

“The existing employment agreements were amended and restated to:

- *extend the term of the agreements for one year, to June 22, 2014 in the case of Mr. Bordelon and to June 22, 2013 in the case of the Executive Vice Presidents;*
- *remove the prior provisions that permitted the agreements to be automatically extended for an additional year on the annual anniversary date of the agreement unless either party to the agreement has given notice that the term will not be extended (commonly referred to as an “evergreen” provision); and*
- *revise the provision in Mr. Bordelon’s agreement with the Company which requires the Company to (1) reimburse Mr. Bordelon for any 20% excise tax incurred under Section 280G of the Internal Revenue Code of 1986, as amended (“Section 280G”), upon severance of employment after a “change-in-control”, as defined under Section 280G, and (2) pay the additional federal, state and local income taxes and excise taxes on such reimbursement in order to place Mr. Bordelon in the same after-tax position he would have been in if the excise tax had not been imposed (commonly referred to as a “Section 280G gross-up” provision) such that the Company will be obligated to pay a Section 280G gross-up to Mr. Bordelon only with respect to a change-in-control which occurs on or before June 22, 2014.*

The determination to remove the evergreen provisions in the agreements and, in the case of Mr. Bordelon’s agreement with the Company, limit the provision providing for a 280G gross-up payment to change-in-control transactions occurring on or before June 22, 2014, were undertaken primarily upon consideration of the governance risk indicators (“GRId”) published by RiskMetrics Group (formerly known as Institutional Shareholder Services or “ISS”). The Company has taken other actions related to its GRId score, including the adoption of chief executive officer and director stock ownership guidelines and of a compensation clawback policy.”

Source: Home Bancorp, Inc., SEC Form 8-K filed March 30, 2011.

New clawback arrangement:

“On March 18, 2011, the Board of Chelsea adopted a recoupment policy that requires all executive officers to repay or return cash bonuses and/or equity awards in the event: (i) the Company issues a material restatement of its financial statements and where the restatement was caused by the employee’s intentional misconduct; (ii) the executive officer was found to be in violation of non-compete provisions of any plan or agreement; or (iii) the executive officer has committed ethical or criminal violations.”

Source: Chelsea Therapeutics International, Ltd., SEC Form 8-K filed March 18, 2011.

Reduction or elimination of executive benefits:

“On December 1, 2010, Mueller Water Products, Inc. (the “Company”) and Gregory E. Hyland, the Company’s Chairman of the Board of Directors, President and Chief Executive Officer, entered into an amendment (the “Amendment”) to Mr. Hyland’s employment agreement (the “Agreement”). The Amendment deletes a provision from the original Agreement that entitled Mr. Hyland to reimbursement for membership dues in one country club and one luncheon club in the Atlanta, Georgia area. The Amendment is consistent with a recent determination by the Company’s Compensation and Human Resources Committee to modify the Company’s policy for executive club reimbursement, such that the Company will no longer reimburse executives for club membership fees.”

Source: Mueller Water Products, Inc., SEC Form 8-K, filed December 6, 2010.

Reduction in CEO cash compensation:

“On February 3, 2011, following the recommendation of the Compensation Committee of the Board of Directors (the “Board”) of Intuitive Surgical, Inc. (“Intuitive” or the “Company”), the Board approved a decrease of \$100,000 in the base salary for Lonnie Smith, the Company’s executive officer as well as the Chairman of the Board. Mr. Smith’s new base salary, effective January 1, 2011, will be \$100,000 and he will not participate in the Company’s bonus plan.”

Source: Intuitive Surgical, Inc., SEC Form 8-K filed February 3, 2011.

Figure 1. Distribution of shareholder meeting dates

Figure 1 presents the distribution of annual shareholder meetings in a window around January 21st (day 0) in both 2010 and 2011. Say on pay is required under Dodd-Frank at annual meetings on or after January 21st, 2011. The vertical axis indicates the number of companies that had the annual meeting that day. The horizontal axis indicates the number of days before or after January 21st. For example "-4" means 4 days before January 21st and "4" means 4 days after January 21st. The darker bars refer to meetings in 2010 and the lighter bars to meetings in 2011.

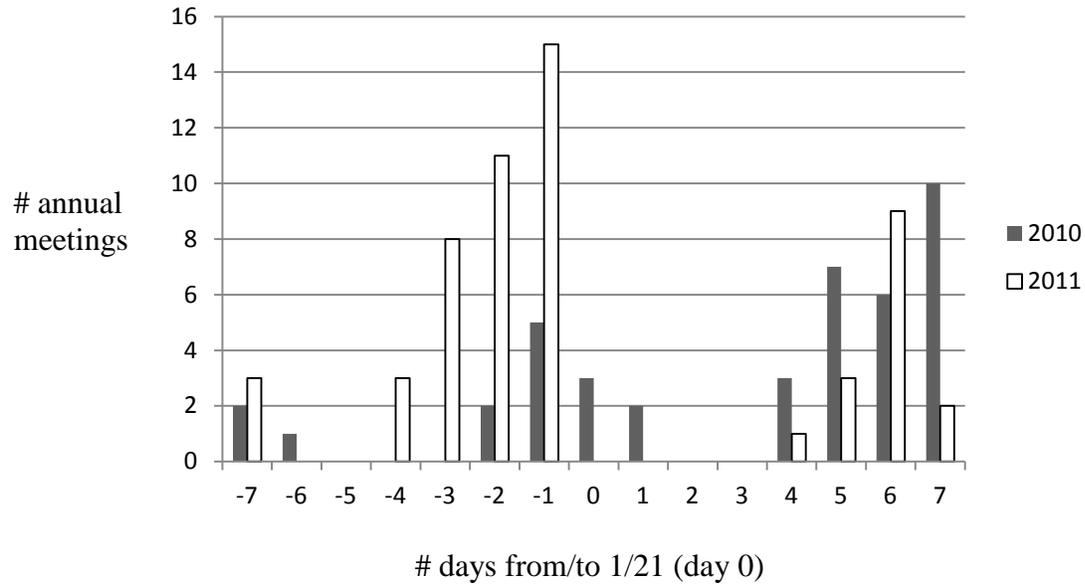


Table 1. Descriptive statistics for the sample firms

This table reports selected descriptive statistics for our sample of 2,008 firms and the 4,513 benchmark firms in the Compustat-CRSP universe with fiscal year end date between 6/30/2010 and 3/31/2011. Panel A presents descriptive statistics of variables related to firm characteristics. *Size* is the firm's equity market value (in millions of dollars). *BM* is the Book-to-market ratio. *Leverage* is total liabilities divided by total assets. *Volatility* is the annualized return volatility, computed as the standard deviation of daily returns over 365 days prior to fiscal year end. *ROA* is return on assets (operating income scaled by total assets). *Pctinstit* is the percentage of the firm's shares owned by institutions. Panel B presents the industry distribution of the sample and Compustat firms using Fama and French industry classification.

Panel A. Descriptive Statistics

<i>Firm characteristic</i>	<i>Sample</i>		<i>Compustat</i>	
	<i>mean</i>	<i>median</i>	<i>mean</i>	<i>median</i>
<i>Market Cap (millions)</i>	5,982	1,173	3,750	499
<i>BM</i>	0.57	0.51	1.09	0.60
<i>Leverage</i>	0.22	0.17	0.20	0.14
<i>ROA</i>	0.06	0.07	0.07	0.05
<i>Volatility</i>	0.40	0.37	0.48	0.42
<i>Pctinstit</i>	0.72	0.78	0.51	0.55

Panel B. Industry Sectors

<i>Fama and French 12 industry groups</i>	<i>Sample</i>	<i>Compustat</i>
Business equipment	17.13%	13.45%
Chemicals and allied products	2.19%	2.34%
Consumer durables	2.02%	2.09%
Oil, gas, and coal extraction and products	5.14%	5.13%
Healthcare, medical equipment and drugs	10.86%	10.41%
Manufacturing	8.62%	10.46%
Financial firms	22.71%	23.66%
Consumer nondurables	4.30%	4.13%
Other	13.34%	12.20%
Wholesale, retail, and some services	7.73%	8.67%
Telephone and television transmission	3.08%	3.14%
Utilities	2.88%	4.33%

Table 2. Descriptive statistics for measures used in the analyses

This table reports descriptive statistics for the measures used in subsequent analyses for our 2,008 sample firms. *ISS_against* equals one if ISS recommended against and zero otherwise. *GL_against* equals one if Glass Lewis recommended against and zero otherwise. *P4P* is a pay-for-performance indicator variable that equals one (and zero otherwise) if: (i) the CEO's compensation increases from 2009 to 2010, (ii) total shareholders' returns in the last year (*TSR1Y*) is lower than the median *TSR1Y* among the companies in the same GICS code, (iii) total shareholders' returns in the last three years (*TSR3Y*) is lower than the median *TSR3Y* among the companies in the same GICS code, and (iv) the CEO's total compensation is above the median compensation of the peer companies (the peer group is defined following ISS's criteria). *PayDisparity* is the ratio between CEO compensation and the average compensation of the other named executive officers (NEO's). *PctLTincentives* is the present value of long-term incentives divided by the sum of the present value of both long term and short term incentives. *PctPBincentives* is the present value of performance-based equity incentives divided by the sum of the present value of both performance-based and non-performance-based equity incentives. *nPM* is the number of different performance measures used by the LTIP's, stock and option grants to the CEO. *GRID_comp* equals one if the compensation GRID score computed by ISS is labeled as "high concern", two if it is labeled as "medium concern" and three if it is labeled as "low concern". *WithholdRec* is the number of "withhold" or negative recommendations issued by ISS on directors of the company in the previous proxy season. *PctSupport* is the percentage of favorable advisory votes on SOP. *Fail* equals one if the SOP proposal failed to obtain majority support and zero otherwise. *ISS_influence* is calculated as the sum across funds in that company of the probability of voting with ISS conditional on disagreement multiplied by the holdings of each fund in the company.

Panel A. Variables used in subsequent analyses

	25 th pct	mean	median	75 th pct
SOP voting recommendations				
<i>ISS_against</i>	0	0.13	0	0
<i>GL_against</i>	0	0.21	0	0
Proxy advisors' SOP policies				
<i>P4P</i>	0	0.13	0	0
<i>Paydisparity</i>	1.88	2.76	2.51	3.35
<i>PctLTincentives</i>	0.51	0.62	0.73	0.83
<i>PctPBincentives</i>	0	0.32	0	0.71
<i>nPM</i>	1	2.39	2	4
Other variables				
<i>GRID_comp</i>	2	1.97	2	2
<i>WithholdRec</i>	0	0.13	0	0.08
Voting outcomes				
<i>Pctsupport</i>	0.87	0.90	0.95	0.98
<i>Fail</i>	0	0.016	0	0
Measure of ISS influence				
<i>ISS_influence (in %)</i>	5.18	8.85	8.40	11.85

Panel B. ISS and GL recommendations

<i>ISS recommendation</i>	<i>Only ISS</i>		<i>Only GL</i>		<i>ISS and GL</i>			
	<i>For</i>	<i>Against</i>	-	-	<i>For</i>	<i>Against</i>	<i>For</i>	<i>Against</i>
<i>GL recommendation</i>	-	-	<i>For</i>	<i>Against</i>	<i>For</i>	<i>Against</i>	<i>For</i>	<i>Against</i>
<i>Pass (PctSupport ≥ 50%)</i>	1,747	229	1,462	357	1,339	271	123	86
<i>Fail (PctSupport < 50%)</i>	0	32	1	29	0	0	1	29
<i>#firms</i>	1,747	261	1,463	386	1,339	271	124	115

Table 3. Proxy advisors' SOP Recommendations

This table reports results of probit regressions testing the determinants of ISS SOP recommendations. Panel A and panel B analyze the determinants for ISS and Glass Lewis recommendations, respectively. *P4P* is a pay-for-performance indicator variable that equals one (and zero otherwise) if: (i) the CEO's compensation increases from 2009 to 2010, (ii) total shareholders' returns in the last year (*TSR1Y*) is lower than the median *TSR1Y* among the companies in the same GICS code, (iii) total shareholders' returns in the last three years (*TSR3Y*) is lower than the median *TSR3Y* among the companies in the same GICS code, and (iv) the CEO's total compensation is above the median compensation of the peer companies (the peer group is defined following ISS's criteria). *PayDisparity* is the ratio between CEO compensation and the average compensation for the other named executive officers (NEOs). *PctLTincentives* is the present value of long-term incentives divided by the sum of the present value of both long term and short term incentives. *PctPBincentives* is the present value of performance-based equity incentives divided by the sum of the present value of both performance-based and non-performance-based equity incentives. *nPM* is the number of different performance measures used by the LTIP's, stock and option grants to the CEO. *GRID_comp* equals one if the compensation GRID score computed by ISS is labeled as "high concern", two if it is labeled as "medium concern" and three if it is labeled as "low concern". *WithholdRec* is the number of "withhold" or negative recommendations issued by ISS on directors of the company in the previous proxy season. *, **, and *** denote significance at the 10, 5 and 1% significance level (two-tail).

Panel A. ISS recommendations

Variable	Expected Sign	ISS_against		ISS_against	
		coef	t-stat	coef	t-stat
Constant		-1.41***	-32.14	-1.04***	-6.51
P4P	+	1.30***	14.71	1.30***	14.04
PayDisparity	+			0.13***	5.08
PctLTincentives	-			0.04	0.29
PctPBincentives	-			-0.03	-0.35
nPM	-			-0.06***	-2.72
GRID_comp	-			-0.35***	-5.40
WithholdRec	+			0.50***	3.72
Pseudo R ²			13.87%		20.75%
N			2,008		2,008

Panel B. GL recommendations

Variable	Expected Sign	GL_against		GL_against	
		coef	t-stat	coef	t-stat
Constant		-0.92***	-25.24	-1.43***	-8.85
P4P	+	0.71***	7.98	0.58***	6.37
PayDisparity	+			0.17***	6.94
pctLTincentives	-			0.61***	4.64
pctPBincentives	-			-0.04	-0.41
nPM	-			-0.01	-0.49
GRID_comp	-			-0.19***	-3.20
WithholdRec	+			0.15	1.15
Pseudo R ²			3.30%		8.52%
N			1,849		1,849

Table 4. Proxy advisors' SOP Recommendations and Voting Outcomes

This table reports results of the association between voting outcomes ISS SOP recommendations and ISS recommendations. Panel A presents results of the cross-sectional determinants of voting support. *PctSupport* is the percentage of favorable advisory votes on SOP. *ISS_influence* is calculated as the sum across funds in that company of the probability of voting with ISS conditional on disagreement multiplied by the holdings of each fund in the company. *PctInstit* is the percentage of shares owned by institutions. *ISS_against* equals one if ISS recommended against the company's compensation practices and zero otherwise. Panel B compares the influence of recommendations by ISS and GL on voting support. *, **, and *** denote significance at the 10, 5 and 1% significance level (two-tail).

Panel A. Influence of ISS on voting support

<i>Dep. Var: PctSupport</i>	(1)		(2)		(3)		(4)	
<i>Variable</i>	coef	<i>t</i> -stat	coef	<i>t</i> -stat	coef	<i>t</i> -stat	coef	<i>t</i> -stat
<i>Constant</i>	0.93***	568.18	0.96***	267.28	0.95***	300.96	0.96***	196.51
<i>ISS_against</i>	-0.25***	-25.68	-0.25***	-26.63	-0.15***	-9.07	-0.08***	-2.89
<i>ISS_influence</i>			-0.002***	-7.19	-0.001***	-3.98		
<i>ISS_against*ISS_influence</i>					-0.01***	-6.67		
<i>PctInstit</i>							-0.04***	-5.61
<i>ISS_against*PctInstit</i>							-0.24***	-6.36
<i>Pseudo R</i> ²		49.21%		50.66%		53.16%		53.77%
<i>N</i>		2,008		2,008		2,008		2,008

Panel B. Influence of GL on voting support

<i>Dep. Var: PctSupport</i>	(1)		(2)		(3)	
<i>Variable</i>	coef	<i>t</i> -stat	coef	<i>t</i> -stat	coef	<i>t</i> -stat
<i>Constant</i>	0.94***	460.74	0.96***	771.07	0.94***	160.67
<i>GL_against</i>	-0.18***	-22.88	-0.13***	-24.34	-0.10***	-3.65
<i>ISS_against</i>			-0.21***	-24.62		
<i>PctInstit</i>					-0.01	-1.42
<i>GL_against*PctInstit</i>					-0.09**	-2.55
<i>Pseudo R</i> ²		35.66%		69.16%		36.32%
<i>N</i>		1,849		1,849		1,849

Table 5. Characterization of compensation changes preceding the annual meeting

Panel A presents descriptive statistics of selected characteristics of firms making compensation changes within the eight-month window previous to the filing of the proxy statement prior to the 2011 annual meeting. The first two columns of Panel A present descriptive statistics of firms that filed 8-Ks announcing compensation changes that conform to ISS's policies. The second set of columns of Panel A present descriptive statistics of the remaining sample firms. The third set of columns of Panel A present descriptive statistics of firms that filed 8-Ks announcing compensation changes that are unrelated to ISS's policies. Compensation changes that conform with ISS policies are the following (see Appendix A): Amendment to outstanding awards, reduction of burn rate, new cash LTIP, reduction in cash comp, changes/amendments to change of control plans, new performance-based equity plan and reduction in benefits. *P4P* is a pay-for-performance indicator variable that equals one (and zero otherwise) if: (i) the CEO's compensation increases from 2009 to 2010, (ii) total shareholders' returns in the last year (*TSR1Y*) is lower than the median *TSR1Y* among the companies in the same GICS code, (iii) total shareholders' returns in the last three years (*TSR3Y*) is lower than the median *TSR3Y* among the companies in the same GICS code, and (iv) the CEO's total compensation is below the median compensation of the peer companies (the peer group is defined following ISS's criteria). *ISS_influence* is calculated for each company as the average probability of each fund voting with ISS conditional on disagreement multiplied by the holdings of each fund in the company. *PctInstit* is the percentage of shares owned by institutions. Panel B presents similar statistics using a random sample of compensation-related 8-Ks filed within the eight-month window previous to the filing of the proxy statement corresponding to the 2006 - 2010 annual meetings. *, **, and *** denote significance at the 10, 5 and 1% significance level (two-tail).

Panel A. 2011 annual meeting (the initial SOP vote)

	<i>Firms with PA aligned 8-Ks</i>		<i>Remainder of sample firms</i>		<i>Firms with other compensation 8-Ks</i>		<i>Diff. (1)-(2) p-values</i>		<i>Diff. (1)-(3) p-values</i>	
	Mean	Median	Mean	Median	Mean	Median	t-test	Wilcx	t-test	Wilcx
<i>P4P</i>	0.18	0.00	0.13	0.00	0.11	0.00	0.067	0.067	0.015	0.015
<i>ISS_influence</i>	9.34	8.74	8.77	8.27	9.09	8.76	0.090	0.043	0.496	0.442
<i>PctInstit</i>	0.77	0.81	0.71	0.77	0.72	0.77	0.000	0.001	0.004	0.033
<i>Number of firms</i>	275		1,733		377					
<i>Number of changes</i>	297				436					

Table 5. Characterization of compensation changes preceding the annual meeting (cont'd)

Panel B. 2006-2010 annual meetings (before the requirement of a SOP vote)

	<i>Firms with PA aligned 8-Ks (1)</i>		<i>Firms with other compensation 8-Ks (2)</i>		<i>Diff. (1)-(2) p-values</i>	
	Mean	Median	Mean	Median	t-test	Wilcx
<i>P4P</i>	0.07	0.00	0.06	0.00	0.539	0.539
<i>ISS_influence</i>	10.03	9.72	9.79	9.25	0.548	0.517
<i>PctInstit</i>	0.80	0.84	0.80	0.83	0.530	0.603
<i>Number of firms</i>		188		450		
<i>Number of changes</i>		201		532		

Table 6. Compensation changes and proxy advisors' SOP recommendations

This table presents results of probit regressions testing the association between ISS recommendations and changes in compensation previous to the proxy season. The dependent variable *ISS_against* equals one if ISS recommended a vote against the company's compensation practices and zero otherwise. The first set of columns includes all sample firms. The second set of columns includes 8-Ks filed during the 8 months previous to the proxy statement of the 2011 proxy season. *Sum_PA_Aligned* is the sum of *PA_Aligned* across all of the 8-Ks for each firm in the 8 months prior to the proxy statement of the 2011 proxy season. Proxy advisor aligned compensation changes are the following (see Appendix A): Amendment to outstanding awards, reduction of burn rate, new cash LTIP, reduction in cash comp, changes/amendments to change of control plans, new performance-based equity plan and reduction in benefits. *PA_Aligned* is the number of Proxy advisor aligned compensation changes announced in each 8-K. *P4P* is a pay-for-performance indicator variable that equals one (and zero otherwise) if: (i) the CEO's compensation increases from 2009 to 2010, (ii) total shareholders' returns in the last year (*TSR1Y*) is lower than the median *TSR1Y* among the companies in the same GICS code, (iii) total shareholders' returns in the last three years (*TSR3Y*) is lower than the median *TSR3Y* among the companies in the same GICS code, and (iv) the CEO's total compensation is below the median compensation of the peer companies (the peer group is defined following ISS's criteria). *, **, and *** denote significance at the 10, 5 and 1% significance level (two-tail).

<i>Dep. Var: ISS_against</i>	<i>All sample firms</i>		<i>8-Ks with some type of compensation change</i>	
	<i>coef</i>	<i>t-stat</i>	<i>coef</i>	<i>t-stat</i>
<i>Constant</i>	1.38***	-30.56	-1.24***	-15.52
<i>Sum_PA_Aligned</i>	-0.16*	-1.73		
<i>PA_Aligned</i>			-0.22*	-1.94
<i>P4P</i>	1.31***	14.77	1.03***	7.07
<i>Pseudo R²</i>		14.07%		8.73%
<i>N</i>		2,008		733

Table 7. Market reaction to compensation changes preceding SOP

This table analyzes cross-sectional differences in the market reaction to compensation-related 8-Ks filed during the eight months prior to the proxy statement release date. The dependent variable, *AdjRet*, is the average daily risk-adjusted return on the day of the 8-K filing, estimated using the Fama and French three-factor model plus momentum. *AdjRet* is expressed as a %. Column (1) includes 8-Ks filed during the 8 months preceding the proxy statement filing date in fiscal year 2011. Column (2) includes a random sample of 8-Ks from previous (2006-2010) fiscal years. *PA_Aligned* is the number of ISS-friendly compensation changes announced in the 8-K. ISS-friendly compensation changes are the following (see Appendix A): Amendment to outstanding awards, reduction of burn rate, new cash LTIP, reduction in cash comp, changes/amendments to change of control plans, new performance-based equity plan and reduction in benefits. Panel B compares *AdjRet* on the 8-K filing day to the average *AdjRet* on the 30 days preceding the 8-K filing date and the 30 days following the 8-k filing date. The *t*-stats are in parenthesis. *, **, and *** denote significance at the 10, 5 and 1% significance level (two-tail).

Panel A. Market reaction and comparison to previous proxy seasons

<i>Dependent variable: AdjRet</i> <i>Variable</i>	<i>2011</i> <i>proxy season</i> <i>(1)</i>	<i>2006-2010</i> <i>proxy seasons</i> <i>(2)</i>	<i>Difference</i> <i>in coefficients</i> <i>(1)-(2)</i>
<i>Constant</i>	0.096 (0.86)	0.162 (1.21)	-0.065 (-0.89)
<i>PA_Aligned</i>	-0.444*** (-2.91)	0.043 (0.21)	-0.488* (-1.91)
<i>N</i>	733	733	
<i>R</i> ²	1.15%	0.01%	

Panel B. Comparison to market reaction on other days around the 8-K filing date

	<i>AdjRet on days</i> <i>preceding the 8-k</i> <i>filing date</i> <i>(days -30 to -1)</i> <i>(1)</i>	<i>AdjRet on 8-k</i> <i>filing date</i> <i>(day 0)</i> <i>(2)</i>	<i>AdjRet on days</i> <i>following the 8-k</i> <i>filing date</i> <i>(days 1 to 30)</i> <i>(3)</i>	<i>Difference</i> <i>in AdjRet</i> <i>(1)-(2)</i>	<i>Difference</i> <i>in AdjRet</i> <i>(2)-(3)</i>
<i>8-Ks aligned with PA policies</i> <i>(N=297)</i>	0.011 (0.41)	-0.345*** (-2.14)	0.019 (0.81)	0.356*** (2.85)	-0.365*** (-3.19)
<i>Other compensation 8-Ks</i> <i>(N=436)</i>	0.037 (1.51)	0.059 (0.58)	-0.001 (-0.02)	-0.022 (-0.19)	0.060 (0.60)