

**Management Influence on Investors:
Evidence from Shareholder Votes on the Frequency of Say on Pay ***

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Abstract:

The literature on shareholder voting has mostly focused on the influence of proxy advisors on shareholder votes. We exploit a unique empirical setting enabling us to provide a direct estimate of management's influence. Analyzing shareholder votes on the frequency of future say on pay votes, we find that a management recommendation for a particular frequency is associated with a 26 percent increase in voting support for that frequency. Additional tests suggest that the documented association is likely to capture a causal effect. Management influence varies across firms and is smaller at firms where perceived management credibility is lower. Compared to firms adopting an annual frequency, firms following management's recommendation to adopt a triennial frequency are significantly less likely to change their compensation practices in response to an adverse say on pay vote, consistent with the notion that a less frequent vote results in lower management accountability.

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1. Introduction

We provide an estimate of the influence of management recommendations on shareholder votes and examine its determinants and consequences. The increasing impact of non-binding shareholder votes on firms' governance and compensation practices over the last decade calls for a better understanding of their determinants (Ferri, 2012). While a number of studies document the considerable influence of proxy advisors' recommendations,¹ we know very little about the influence of management recommendations on shareholder votes. The challenge in empirically evaluating this influence is that management recommendations on the same proposal are typically identical across firms (e.g. management always recommends in favor of (against) management (shareholder) proposals), making it impossible to estimate their impact.²

To quantify management influence on shareholder votes we exploit a unique empirical setting where management recommendations for the same proposal vary across firms. Section 951 of the Dodd-Frank Act mandated a non-binding shareholder vote in 2011 on executive pay, known as "say on pay" vote (SOP). More importantly for our purpose, it also mandated a non-binding vote on the frequency of future SOP votes (known as "say when on pay" vote, or SWOP), with a choice between an annual, a biennial or a triennial frequency. Supporters of annual SOP votes argued that it would promote greater accountability, while proponents of a triennial frequency argued that it would better align the vote with the long-term nature of the compensation plan and the firm's strategy. The distinguishing feature of our setting is that, in contrast to other shareholder voting settings, proxy advisor recommendations are generally the same across all firms (in favor of an annual frequency) but management recommendations vary across firms, allowing us to estimate their association with shareholder votes.

We begin by examining the determinants of the voting outcome in a sample of S&P 1500 firms with annual meetings in 2011. At 61.6 percent (35.4 percent) of the sample firms management recommends an annual (biennial/triennial) SOP vote (interestingly, though, in the first part of the proxy season management recommended an annual frequency at only 40 percent of the firms).³ Consistent with the preference voiced by many institutional investors, the annual frequency option is supported by 75.5 percent of the votes cast on

¹ Proxy advisory firms provide proxy-voting services to institutional investors on a subscription basis, including voting recommendations and reports detailing the analysis underlying these recommendations. See, among others, Cai, Garner, and Walkling (2009), Fischer, Gramlich, Miller, and White (2009), Alexander, Chen, Seppi, and Spatt (2010), Ertimur, Ferri, and Muslu (2011), Larcker, McCall, and Ormazabal (2014) and Ertimur, Ferri, and Oesch (2013).

² Throughout the paper we use the term "management" recommendations to refer to voting recommendations made by the board of directors.

³ Throughout the paper, we group together the cases of biennial and triennial recommendations, since they are based on similar arguments and the number of biennial recommendations is very small (see Table 1). All the results presented are robust to excluding biennial recommendations.

average and obtains the highest number of votes in more than 90 percent of the firms. Similar to other studies, we find that size, performance, ownership structure are important determinants of shareholder votes (Ertimur, Ferri, and Stubben 2010). More importantly for our research question, management recommendations are a key driver of the variation in voting outcomes. In multivariate tests, management's support for a triennial frequency is associated with 25.9 percent more voting support for a triennial frequency (relative to the case where management recommends annual), a figure close to estimates of the influence of the most prominent proxy advisor, Institutional Shareholder Services (ISS), on voting outcomes (e.g. Ertimur et al. 2013).

A number of additional tests suggest that the association does not merely reflect a coincidence of preferences between management and shareholders (i.e. management and shareholders independently favor the same frequency) or reverse causality (i.e. the expected voting outcome drives management recommendations), but mostly captures a causal influence of management recommendations on shareholder votes. Notably, we obtain a similar estimate of management influence (24.4 percent) in a sample of shareholder and management proposals to declassify the board.⁴

It is important to note that such a level of management influence could affect the voting outcome of many other items on the ballot. For example, among the 3,094 shareholder proposals on corporate governance issues supported by ISS (a proxy for contentious proposals) between 2003 and 2013, we estimate that up to 91.5 percent of them would have won a majority vote had an additional 26 percent of the votes been cast in favor of the proposal (that is, had there been no management influence), versus an actual figure of 38.2 percent.⁵ Given the high rate of implementation of shareholder proposals receiving a majority vote documented in previous research (Ertimur et al. 2010; Ertimur, Ferri, and Oesch 2015) and its positive effect on firm value (Cuñat, Gine, and Guadalupe 2014), this means that many more firms would have been pressured to make potentially value-relevant governance changes requested by the proponents. We reach similar conclusions when looking at the voting outcome of director elections, management proposals and say on pay votes (see Section 3.1 for details).⁶

⁴ To estimate management influence on shareholder votes our setting exploits the fact that management recommendations on SOP frequency vary across firms. An alternative approach is to exploit cases where management recommendations vary over time. The most frequent case is when a shareholder proposal to declassify the board opposed by management wins a majority vote and is then followed the subsequent year by a management proposal to amend the certificate of incorporation and declassify the board. As discussed in Section 3.2, this setting is less subject to reverse causality concerns. However, unlike our main setting (SOP frequency vote), it only involves a small and potentially biased sample.

⁵ Our estimates assume that, absent management influence, 26 percent more votes would have been cast in favor of the proposal. If the votes had been equally split between votes in favor of the proposal and against the proposal, the percentage of proposals winning a majority vote would have been 67.7 percent, a figure still substantially higher than the actual 38.2 percent.

⁶ An important caveat is that our estimate is only based on two settings (say on pay frequency vote and proposals to declassify the board) and thus cannot be generalized to other voting settings. However, we conjecture that it is likely to be a lower bound, since it is based on settings where many institutional investors' preferences are

Next, we analyze the determinants of management influence on shareholder votes and find that management attracts significantly less support for a triennial recommendation when shareholders have expressed concerns with the firm's pay practices (as reflected in the contemporaneous shareholder vote on SOP), and with management performance and initiatives (as reflected in shareholder votes on director elections and management proposals). Voting support for triennial is also lower in firms with low management forecast accuracy. Instead, we find no association between proxies for the duration of the compensation plan (in the spirit of Gopalan, Milbourn, Song, and Thakor 2012) and shareholder votes. Collectively, these results suggest that management credibility with shareholders is a key determinant of its influence on voting outcomes.

Next, we track the SOP frequencies adopted in the aftermath of the SWOP votes. Interestingly, despite the votes being non-binding, virtually all firms decided to adopt the SOP frequency that garnered most votes—another example of the growing influence of non-binding shareholder votes on boards' choices (e.g. Ertimur et al. 2013).

Finally, we turn our attention to the consequences of the documented management influence. In particular, we examine whether firms that adopted a triennial frequency (because shareholders trusted management recommendations and voted for triennial, essentially giving up some monitoring power)—and, thus, facing the next SOP vote in 2014—were less likely to make changes to their pay practices in response to adverse SOP votes compared to firms adopting an annual frequency and, thus, facing the next SOP vote in 2012 already. To perform this test, we expand our sample to the Russell 3000 index and identify 273 firms (203 annual adopters, 70 triennial adopters) likely to be under pressure to respond to the SOP vote (i.e. firms that received a negative ISS recommendation on the SOP proposal, averaging 29.8 percent votes against SOP in 2011).

We find that 67.5 percent of the annual adopters made changes to their compensation plan directly in response to the 2011 vote. In stark contrast, only 14.3 percent of the triennial adopters made similar changes (difference statistically significant at the 1 percent level).⁷

A potential explanation is that triennial adopters are less responsive because they experience lower SOP voting dissent relative to annual adopters (16.0 percent versus 34.5 percent) or because of other firm characteristics found to be associated with responsiveness to shareholder pressure (e.g. institutional ownership, size, performance). Our multivariate tests indicate indeed that firms experiencing greater voting dissent, firms with higher institutional ownership and firms with lower performance are more likely to change compensation

predetermined (in favor of annual SOP votes, in favor of declassifying the board). On other matters on the ballot where more votes are “in play”, management's opportunity to influence shareholder votes is likely to be greater.
⁷ Annual adopters reporting changes to their compensation plan experience a large decrease in votes against SOP (from 39.6 percent in 2011 to 19.6 percent in 2012, on average) suggesting that these changes are perceived by voting shareholders as an adequate and material response to the 2011 vote.

practices in response to SOP votes. However, the adoption of a triennial frequency continues to be a statistically and economically significant factor: holding all other variables at the median, the likelihood of compensation changes is 39 percent for triennial adopters versus 62 percent for annual adopters. Overall, our evidence of lower responsiveness by triennial adopters is consistent with the view (expressed by supporters of annual SOP votes) that a less frequent vote would reduce management accountability. While it is difficult in our setting to directly examine whether a less frequent SOP vote is value-destroying, prior studies document positive (negative) valuation effects associated with the adoption of governance provisions that increase (decrease) management accountability and responsiveness to shareholders (e.g. annual election of directors, majority voting, proxy access, say on pay), thus enhancing the economic significance of our findings and their relevance to investors and policy-makers.⁸

Shareholder votes have emerged as an important performance metric and control system (Fischer et al. 2009). Our study contributes to the literature on shareholder voting by providing the first estimate of the influence of management recommendations. In doing so, it adds to a limited body of research on indirect ways through which management may try to influence the voting outcome (e.g. bundling, classifying and timing proposals up for a vote, increasing voting turnout).⁹ Combined with the evidence from studies on proxy advisors, our estimate suggests that, on average, proxy advisors and management influence about one fourth of the total votes each, with the remaining votes (about half of the total votes) essentially representing “votes in play”.

⁸ Examples of these studies are Bebchuk and Cohen (2005), Bebchuk, Cohen, and Yang (2011), Becker, Bergstresser, and Subramaniam (2013), Cai and Walkling (2011), Cohn, Gillan, and Hartzell (2014), Cuñat et al. (2014), Ertimur et al. (2015) and Ferri and Maber (2013). Relatedly, Cuñat, Gine, and Guadalupe (2012) document a positive stock price reaction to an increase in the probability of adoption of governance-related shareholder proposals, suggesting that, on average, greater responsiveness to shareholder votes is value-enhancing. Notwithstanding this evidence, the value of greater shareholder voice in corporate governance remains the subject of an ongoing debate (e.g. Bebchuk 2005; Bainbridge 2006; Kahan and Rock 2011), with some empirical studies casting doubts on the valuation effects of certain governance arrangements (Listokin 2009; Larcker, Ormazabal, and Taylor 2011).

⁹ Bebchuk and Kamar (2010) find that management is able to use “bundling” to obtain shareholder approval for pro-management arrangements (e.g. staggered boards) which shareholders would not support on a stand-alone basis. Bethel and Gillan (2002) document that management opportunistically used discretion in the classification of management proposals as “routine” proposals at a time when (for routine proposals) brokers were allowed to vote uninstructed shares held in street name (with these shares typically voted in favor of management). Studying a sample of mergers, Listokin (2010) documents that close-call management proposals are more likely to pass by a small margin than to fail by a small margin, consistent with management timing the submission of proposals when they are more likely to be approved or successfully soliciting votes when the outcome is uncertain. Dimitrov and Jain (2011) and Baginski, Clinton, and McGuire (2014) find that management discloses positive news ahead of contentious annual meetings, while DeAngelo (1988) finds evidence of income-increasing earnings management before shareholder votes on proxy contests. Young, Millar, and Glezen (1993) find that management mails proxies in advance to obtain a higher voting turnout when its proposals require a majority of shares outstanding, as opposed to votes cast, for approval. Ferri and Sandino (2009) provide anecdotal evidence of management efforts to win the shareholder vote (e.g. the case of Intel on a shareholder proposal to expense stock options). Another line of research examines the extent to which actual or potential business opportunities (another form of indirect management influence) affect the votes of mutual funds (e.g. Davis and Kim 2007).

Hence, while growing attention is devoted to the influence of proxy advisors on shareholder votes and its dangers (e.g. Choi, Fisch, and Kahan 2010; Larcker et al. 2014; Larcker, McCall, and Ormazabal 2013; Ertimur et al. 2013), our evidence calls for more research on the costs and benefits of management influence, at a time where management is trying to expand such influence (WSJ 2013). In that sense, our findings can inform policy makers who are considering regulating proxy advisors and reforming the voting process (SEC 2010; SEC 2014).

Our study also contributes to the literature on executive pay and, in particular, on say on pay and compensation-related activism (Cai and Walkling 2011; Ertimur et al. 2011, 2013; Armstrong, Gow, and Larcker 2013; Ferri and Maber 2013). Our evidence that firms under a triennial regime are less likely to respond to shareholder pressure and implement changes to their compensation plans implies that the threat of other (potentially substitute) monitoring tools (e.g. withholding votes from compensation committee members, filing shareholder proposals, informal engagement with the board) is less effective than the threat of an imminent SOP vote. Also, while a large body of executive pay research has focused on management influence on *boards* (e.g. Bebchuk and Fried 2004), we examine the use of management/board influence on *shareholders*.

Relatedly, we contribute to the research on boards' responsiveness to shareholder pressure (e.g. Del Guercio, Seery and Woidtke 2008; Ertimur et al. 2013; Ferri and Maber 2013). Our finding of lower responsiveness to shareholder votes in firms with lower frequency of scrutiny (triennial SOP vote) echoes the result that firms with classified boards (another form of less frequent scrutiny) are less likely to implement majority-approved shareholder proposals (Faleye 2007).

Finally, the study speaks to the accounting literature on management influence on investors. While this literature has focused on the credibility of management forecasts for the marginal investor (e.g. Rogers and Stocken 2005; Ng, Tuna, and Verdi 2013), we examine the credibility of management recommendations for voting shareholders.

2. Sample description, frequency of recommendations and voting outcome

Our sample includes S&P 1500 firms with annual meetings in 2011 for which we are able to obtain voting data and management recommendations from ISS, as well as the relevant financial, compensation and governance data from CRSP, Compustat, Execucomp, and RiskMetrics, resulting in 1,365 firms. Table 1 indicates that in 61.6 percent of the cases (841 firms) management recommended annual SOP votes, in 35.4 percent of the cases it recommended either a biennial (32 firms) or a triennial (452 firms) frequency, whereas in 2.9 percent of the cases (40 firms) it made no recommendation. Notably, as shown in Figure 1, the frequency of multiyear (biennial or triennial) recommendations was considerably higher, around 60 percent, in the early part

of the proxy season (annual meetings between January and March 2011), and then dropped to around 30 percent, likely in response to early evidence of shareholders' preference for annual SOP votes.

Insert Table 1 about here

Insert Figure 1 about here

Appendix 1 presents examples of the arguments in support of the various recommendations. Supporters of a triennial vote generally argue that it is more consistent with the long-term nature of their compensation plan and business strategy and allows more time for shareholders to evaluate the effectiveness of the compensation plan (as well as firms' responses to the vote) and for boards to obtain and implement shareholders' suggestions. They also contend that, even with triennial votes, shareholders will continue to have opportunities for more timely feedback through direct engagement with the board. Supporters of the annual frequency state that it promotes greater accountability, provides more timely feedback and is consistent with the annual evaluation performed by the compensation committee. Similar arguments are echoed by proxy advisors and institutional investors (see Appendix 2), who also note that an annual vote is easier to interpret, is the standard adopted by other countries with a SOP regime, is consistent with annual votes on auditor ratifications and the trend toward annual election of directors and may avoid more confrontational tactics (e.g. vote-no campaigns) in the "off" years.¹⁰

Many institutional investors expressed their position on the SOP frequency choice ahead of the proxy season, in most cases expressing support for an annual frequency.¹¹ In fact, Table 1 indicates that shareholders overwhelmingly favored an annual SOP vote (75.5 percent of the votes, versus 21.3 percent in favor of triennial and only 1.7 percent in favor of biennial). Even more strikingly, in 90.8 percent of the cases (1,239 out of 1,365) the annual option received the highest voting support (almost always representing the majority of votes cast). Table 1 also provides a first glimpse of the influence of management recommendations on voting outcomes.

¹⁰ In untabulated tests we examine the determinants of management recommendations. We do not find a significant relation between proxies for the duration of the compensation plan and the likelihood of a triennial recommendation, contrary to the arguments put forth by management when motivating their recommendation. In contrast, we find some evidence that firms with higher abnormal CEO pay are more likely to recommend triennial SOP votes, but the economic significance of this effect is small. Results of these analyses are available upon request.

¹¹ The list of those favoring annual SOP votes includes (among others) Fidelity, Putnam, State Street, CalPERS, CalSTRS and TIAA-CREF, while Blackrock, Capital Research and Ontario Teachers' Pension Plan (OTTP) favored a triennial frequency. In some cases, the position was more nuanced. Vanguard, for example, generally favored an annual frequency but would consider supporting a triennial frequency if the compensation plan was multi-year in nature. For a (partial) list of institutional investors' policy on SWOP, see <http://say-on-pay.com/shareholder-positions/>.

Voting support for any of the three options is about 30 percent higher when recommended by management. For example, mean voting support in favor of annual is 86.6 percent when management recommends annual and 56.5 percent when management recommends triennial.¹² An interesting and unique feature of our setting is that we also observe how shareholders vote in a sample of 40 firms where management makes no recommendation: on average 71.5 percent of the votes were cast in favor of annual (Table 1, last column). One way to interpret this figure is that about half of the (approximately) 30 percent of votes otherwise influenced by management were cast in favor of annual and the rest in favor of biennial and triennial.

3. Determinants of shareholder votes on the frequency of SOP

3.1 Estimating management influence on shareholder votes

To examine the determinants of the SWOP votes, we estimate an OLS regression where the dependent variable is *SWOP Votes for Triennial* (i.e. the percentage of votes cast in favor of holding a biennial or triennial SOP vote).¹³ Similar to other studies on the determinants of shareholder votes, we control for size ($\ln(MV \text{ Equity})$), performance (*Return on Assets*, *Abnormal Returns*), and ownership structure.¹⁴ With respect to the latter, we include three components: insider ownership, institutional ownership, and ownership by non-institutional blockholders. For insider ownership, we hand-collect from proxy statements the percentage of shares owned by directors and executives and then adjust it to take into account actual voting rights arising from dual class structures or the existence of other securities (e.g. preferred stock) with voting rights. That is, unlike prior studies on shareholder voting, we effectively measure the percentage of *votes* controlled by directors and executives (rather than the percentage of common *shares* held), *% Votes Controlled by Insiders*.¹⁵ The correction is important. For firms with triennial recommendations where the correction is necessary, the mean *% Votes Controlled by Insiders* before (after) the adjustment is 22 percent (55 percent). As for institutional ownership, we first compute the percentage of shares held by institutional investors (rescaled to account for the adjustment of

¹² Another way to obtain the same estimate from Table 1 is the following: regardless of any recommendations, about 57 percent of the votes are cast in favor of annual and about 12-13 percent in favor of biennial/triennial, implying that the remaining (approximately) 30 percent of the votes cast move with management recommendations.

¹³ We obtain similar findings when we use the logit transformation of *SWOP Votes for Triennial*, $\log [(SWOP \text{ Votes for Triennial} / (1 - SWOP \text{ Votes for Triennial})]$, as in Bethel and Gillan (2002). For ease of interpretation we present the results using *SWOP Votes for Triennial* as the dependent variable.

¹⁴ Previous studies find that voting support for management is generally higher in larger firms (possibly due to the higher cost of collective action in large firms and the greater resources they invest in campaigning) and in better performing firms (e.g. Ertimur et al. 2010; Gillan and Starks 2000).

¹⁵ As an extreme example, consider a company with 100 Class A shares (with one vote per share) and 10 Class B shares (with ten votes per share), where executives and directors own 10 A shares (10 percent of Class A) and 10 B shares (100 percent of Class B). Available databases will report a 10 percent ownership figure (based on Class A shares) or a 18.2 percent figure (based on Class A and B: $(10+10)/(100+10)$), while the percentage of votes controlled by executives and directors is 55%, calculated as $(10+100)/(100+10*10)$.

insider ownership described above), % *Institutional Ownership*. Then, we exploit the fact that a number of institutional investors publicly declared their support for annual or triennial SOP votes before the beginning of the proxy season and split the % *Institutional Ownership* variable into three variables: the percentage of equity held by institutional investors *In Favor of Annual*, *In Favor of Triennial* or *With No Stated Preference*.¹⁶

The third component of ownership structure we measure is the percentage of shares held by investors owning more than 5 percent of equity (and thus reported in the proxy statement) but not subject to the 13-F filing requirements (and thus not captured by standard measures of institutional ownership), denoted as % *Non-Inst. Block Ownership* (rescaled to account for the adjustment of insider ownership described above). This category, neglected in prior studies on shareholder voting, includes a heterogeneous group of investors, such as corporate owners, private equity firms, wealthy individual investors, foreign investment firms, former CEOs/founders (not classified as insiders), firms' ESOPs and trusts (data hand-collected from proxy statements).

The results for this baseline specification (presented in Table 2, panel A, Model (1)), indicate a positive (negative) association between votes in favor of triennial and % *Institutional Ownership in Favor of Triennial (in Favor of Annual)*, consistent with the preferences voiced by these institutions. The association between % *Institutional Ownership With No Stated Preference* and votes in favor of triennial is negative, indicating that most of these institutions decided to support an annual frequency. The association between votes in favor of triennial and % *Votes Controlled by Insiders* and % *Non-Institutional Block Ownership* is positive and significant, suggesting that insiders and non-institutional blockholders on average supported a triennial frequency. Support for triennial is higher in more profitable firms. The adjusted R-square is 35.2 percent.¹⁷

Insert Table 2 about here

¹⁶ To classify institutional investors as *In Favor of Annual* or *In Favor of Triennial* we start with the list compiled by Edward A. Hauder at Exequity LLP (<http://say-on-pay.com/shareholder-positions/>) and complement it with other web sources. Every other institutional investor is classified as *With No Stated Preference*. The mean percentage ownership for three groups is 11.7 percent (*In Favor of Annual*), 8.7 percent (*In Favor of Triennial*) and 58.3 percent (*With No Stated Preference*). Of course, it is possible that we mistakenly include in the last group some investors who disclosed their preference for annual or triennial but were not detected by our search.

¹⁷ In untabulated tests we further split % *Institutional Ownership With No Stated Preference* based on institutional investors' potential conflict of interests (the "gray" versus "independent" classification in Brickley, Lease, and Smith 1988) and on their horizon and investment behavior (the "dedicated", "transient" and "quasi-indexer" classification in Bushee 1998), but do not find significant differences among these subgroups. Also, note that, in Model (1), % *Votes Controlled by Insiders* measures the percentage of equity held by insiders taking into account actual voting rights arising from dual class structure or the existence of other securities (e.g. preferred stock) with voting rights. When we replace % *Votes Controlled by Insiders* with % *Insider Ownership*, a measure that is not adjusted for differences in voting rights, the (positive and significant) coefficient on this measure is substantially smaller and the adjusted R-square decreases to 25.3 percent, highlighting the importance of the correction.

Turning to our research question, in Model (2) we include an indicator equal to one if management recommends triennial SOP votes (*Mgmt SWOP Rec: Triennial*), to obtain an estimate of the influence of management recommendations in a multivariate setting. Consistent with the evidence in Table 1, the indicator is positive and significant at 0.259, suggesting that management recommendations (in this setting) are associated with approximately 26 percent higher voting support.¹⁸ Notably, the adjusted R-square increases from 35.2 percent to 74.4 percent, reflecting the significant explanatory power of management recommendations. As a benchmark, estimates of ISS influence on shareholder votes range between 20 percent and 30 percent depending on the topic and time period, with a similar increase in the adjusted R-square.¹⁹ While most studies focus on the (costs and benefits of the) influence of proxy advisors (e.g. Alexander et al. 2010; Larcker et al. 2014), our estimate suggests that similar attention should be paid to (the costs and benefits of) management influence.

To assess the implications of our estimate, we obtain the votes of ‘contentious’ governance-related shareholder proposals, director elections and management proposals (including say on pay proposals) between 2003 and 2013 (source: Voting Analytics) and estimate what the voting outcome would have been had there been no management influence. As a proxy for contentious items on the ballot, we use the presence of an ISS recommendation against the position recommended by management (i.e. shareholder proposals supported by ISS, management proposals opposed by ISS, say on pay proposals opposed by ISS, director nominees opposed by ISS). To estimate the hypothetical voting outcome in cases of no management influence, we first assume that 26 percent more votes (our estimate of management influence) would have been cast against management’s position (i.e. in favor of the shareholder proposal, against the management proposal, against the say on pay proposal, against the director nominee). Then, we assume that half of these votes (13 percent) would have been cast against management’s position, and the other half in favor.²⁰ Under these assumptions, we estimate that between 2003 and 2013 had 26 percent (13 percent) more votes been cast against management’s position: (i)

¹⁸ The sample size in Model (2) is slightly smaller because we exclude the 40 cases of no management recommendations. We also run a specification including these cases, with an indicator for annual and one for triennial recommendations. The coefficients on the annual and triennial recommendation indicators are, respectively, -0.142 and 0.119 (both significant at the 1 percent level), adding up to a 26 percent vote difference between annual and triennial. We choose to present the specification in Model (2) to obtain a direct estimate of management influence on shareholder votes and to enhance comparability with estimates of the influence of proxy advisors.

¹⁹ The effect of ISS’s recommendations on the percentage of shareholder votes has been estimated at 25 percent in the context of SOP votes (Larcker et al. 2012; Ertimur et al. 2013) and compensation-related shareholder proposals (Ertimur et al. 2011), 14-21 percent for management proposals (Bethel and Gillan 2002) and between 13 percent and 30 percent for director elections, depending on the context and time period (Cai et al. 2009; Choi et al. 2010; Ertimur, Ferri, and Maber 2012; Ertimur, Ferri and Oesch 2014). Also, Alexander et al. (2010) find that an ISS recommendation in favor of the dissident in proxy contexts increases the likelihood of the dissident’s victory by 14 percent (from 41 percent to 55 percent).

²⁰ This assumption is consistent with the observation (p.8) that when management makes no recommendation regarding the SOP frequency about half of the votes otherwise influenced by management were cast in favor of annual and the other half in favor of triennial.

91.5 percent (67.7 percent) of 3,094 contentious shareholder proposals would have won a majority vote (versus an actual figure of 38.2 percent); (ii) 26.8 percent (10.0 percent) of the 20,005 director nominees (in contentious director elections) would have failed to win a majority vote (versus an actual figure of 2.2 percent); (iii) 59.4 percent (31.1 percent) of the 4,929 contentious management proposals would have failed to win a majority vote (versus an actual figure of 10.0 percent); (iv) 69.1 percent (37.7 percent) of the 1,040 contentious say on pay proposals would have failed to win a majority vote (versus an actual figure of 15.2 percent).

Given: (i) the high rate of responsiveness to majority-vote shareholder proposals, shareholder votes on director elections, say on pay and other management proposals documented in previous research (Del Guercio et al. 2008; Cai et al. 2009; Cuñat et al. 2012; Ertimur et al. 2010, 2013, 2014, 2015; Fischer et al. 2009) and (ii) the evidence on the positive valuation effects of the induced governance changes (e.g. Bebchuk and Cohen 2005; Bebchuk et al. 2011; Cuñat et al. 2012, 2014; Ertimur et al. 2015), this analysis implies that many more firms would have made potentially value-enhancing governance changes in response to the shareholder vote.

An important caveat is that our estimate of management influence is based on the say on pay frequency vote and cannot be assumed to be the same in other settings. However, we take some comfort from the fact that we obtain a similar estimate in another setting (proposals to declassify the board; see Section 3.2). Also we conjecture that our estimate is likely to be a lower bound, since it is based on settings where many institutional investors' preferences are predetermined (in favor of annual SOP votes, in favor of declassifying the board). On other matters on the ballot where more votes are "in play" management's opportunity to influence shareholder votes is likely to be greater.

To sum up, our analysis above suggests that in an era of increasingly "close" shareholder votes and increasing pressure on firms to respond to shareholder votes, the documented extent of management influence is likely to have a significant impact on voting outcomes and, thus, on the adoption of potentially value-enhancing governance practices.

3.2 Endogeneity concerns: reverse causality

As with research on proxy advisors' influence on voting outcomes (see the discussion in Choi et al. 2010; Ertimur et al. 2013), endogeneity concerns suggest caution in inferring causality.

A first type of endogeneity concern arises due to reverse causality, that is, the possibility that the association documented in Model (2) of Table 2 reflects the effect of the expected voting outcome on management recommendations rather than the influence of management recommendations on shareholder votes. To examine this possibility, we perform two tests. First, in Model (3), we re-run Model (2) but split *Mgmt SWOP Rec: Triennial* into two indicators, depending on whether or not the vote takes place early in the proxy season

(January-March 2011). As discussed earlier, there was a significant drop in the frequency of triennial recommendations after the realization that most shareholders supported annual SOP votes (see Figure 1). If the association documented in Model (2) only captures the expected voting outcome, we would expect the coefficient on *Mgmt SWOP Rec: Triennial* to be significantly lower in the first three months, when management at many firms apparently overestimated shareholder support for triennial SOP votes (and optimistically recommended triennial). On the contrary, however, the results of Model (3) show that the coefficient is slightly higher in the first three months.²¹

Second, we exploit an altogether different setting to obtain an estimate of the influence of management recommendations less likely to be attributable to the expected voting outcome. A number of studies find that the presence of a staggered board is associated with lower firm valuation (e.g. Bebchuk and Cohen 2005; Bebchuk et al. 2011; Cuñat et al. 2012). Not surprisingly then, shareholder proposals to declassify the board have been among the most frequent and successful, in terms of voting outcome and firms' subsequent adoption (Ertimur et al. 2010; Cuñat et al. 2012). Declassifying the board requires an amendment to the certificate of incorporation which, in turn, requires a shareholder vote. Hence, when the board decides to declassify the board in response to a shareholder proposal winning a majority vote, the subsequent year it must submit a management proposal to amend the certificate of incorporation to a shareholder vote. Over the period from 2001 until 2012, we identify 129 firms where a shareholder proposal to declassify the board was followed by an analogous management proposal the subsequent year. In all these cases, management had recommended to vote "against" the shareholder proposal, the shareholder proposal won the majority of the votes (averaging about 70 percent of votes in favor) and then management recommended to vote "for" its own declassification proposal, noting that it changed its recommendation from the prior year in view of broad shareholder support for the proposal.²² We exploit this change in management recommendation (i.e. from "against" to "for" declassification) to estimate the effect of management influence on shareholder votes. In essence, our identification strategy is to compare each firm against itself the previous year (i.e. as a control) and attribute the change in voting outcome entirely to the change in management recommendation, implicitly assuming no changes in any correlated omitted variables.

Using this sample of 129 firms (258 proposals), in Table 2, panel B, Model (1), we regress the percentage of votes in favor of declassifying the board on a set of firm-level determinants of voting outcomes such as size,

²¹ In untabulated tests, we also interact the *Post March 31* indicator with all variables and find that the relation between voting outcome and the other economic determinants is similar before and after March 31st.

²² Because we want to capture the effect of a change in management recommendation from "against" to "for", we exclude (the few) cases where (i) management had made no recommendation on the shareholder proposal or (ii) management recommended against its own proposal the subsequent year (that is, it submitted the proposal because of the past year's majority support for it, but continued to recommend against it).

ownership structure and performance. Then, in Model (2), we add *Mgmt Recommends For*, an indicator equal to one if management recommends in favor of declassifying the board (that is, equal to one in the case of management proposals, equal to zero in the case of prior year's shareholder proposal). If the association between management recommendations and voting outcome documented in Table 2, panel A, is merely reflecting reverse causality (management recommending triennial when expecting a favorable voting outcome), then the coefficient on *Mgmt Recommends For* in panel B, Model (2) should not be different from zero. The reason is that if management changes its recommendation to align it with shareholders' preferences *after* observing the voting outcome in favor of the previous year's shareholder proposal, there should be no association between the new, favorable management recommendation and shareholder votes the subsequent year. That is, all else being equal, the voting outcome in the subsequent year should be similar to the previous year's voting outcome, with no incremental effect due to the revised management recommendation. Instead, as shown in Model (2), the coefficient is positive and significant at 0.244, suggesting that 24.4 percent more votes are cast in favor of the proposal *after* the change in management recommendation, consistent with a causal effect of management recommendations on shareholder votes.²³ Put differently, while the change in management recommendation is certainly driven by the expected voting outcome (based on the past year's vote on the shareholder proposal), its incremental association with shareholder votes is consistent with a causal influence.²⁴

In addition to alleviating potential reverse causality concerns, this test also provides us with an alternative, "time-series" estimate of management influence on shareholder votes, which turns out to be close to the estimate obtained in the "cross-sectional" test of SOP frequency votes.

3.3 Endogeneity concerns: omitted variables

A second type of endogeneity concern arises due to omitted variables. In particular, it is possible that management recommendations simply coincide with shareholder preferences (that is, management and shareholders happen to agree on what firms benefit most from a triennial frequency) and the coefficient on the triennial recommendation captures unobservable factors (or observable factors that we cannot measure with

²³ Note that insider ownership in our sample is about 2 percent, and thus, the 24.4 percent estimate cannot capture simply the effect of insider votes moving in favor of the proposal. Indeed, when we modify Model (2) to add an interaction term between the favorable management recommendation and insider ownership, the coefficient on the indicator for the favorable management recommendation only drops to 0.228, with the interaction term being significantly positive.

²⁴ An alternative explanation is that 24.4 percent more votes are cast in favor of declassifying the board because some shareholders decide to vote in favor after seeing the voting outcome in the previous year. However, many of the shareholder proposals in our sample were submitted and won a majority vote for two or more years before management decided to submit a management proposal, and the percentage of votes cast in favor of those proposals was similar over time. In other words, it does not appear that shareholder proposals winning a majority vote with, say, 60 percent of the votes in favor, obtain more votes the following year when submitted again. The "bump" only occurs when management submits a proposal and changes its recommendation.

precision) that affect both management recommendations and shareholder votes, hence overstating the extent of management influence. While it is difficult to rule out this possibility in our setting, we offer some evidence that may alleviate this concern.

As noted previously (see Figure 1), the frequency of triennial recommendations dropped from 60 percent to 30 percent after the first three months of the proxy season (January 1st - March 31st).²⁵ Let us assume that the ‘discontinuity’ in Figure 1 does not reflect a change in the omitted variables potentially affecting both management recommendations and shareholder votes, but, rather, it reflects (only or mostly) a change in factors affecting management recommendations.²⁶ Under this assumption, we can use the change in management recommendations between the two periods to examine whether shareholder votes follow the change in management recommendations (consistent with a causality interpretation) or remain the same (suggesting that shareholders vote independently of management recommendations - the omitted variable interpretation).

In particular, we can proceed as follows: if the frequency of triennial recommendations after March 31st had remained the same as in the first three months, there should have been about 250 more cases of triennial recommendations after March 31st. If shareholders vote independently of management recommendation (based on some omitted variable affecting both), then we would expect to see at these 250 firms the same voting support for triennial observed at firms where management recommends triennial, that is, about 40 percent (see Table 1). But how can we identify these 250 firms? It turns out that we do not need to. We can take a conservative approach and simply look at the 250 firms with the highest support for triennial among the 802 firms with annual recommendations after March 31st (effectively biasing the test in favor of the omitted variable interpretation). The average voting support for triennial at these firms is only 17.1 percent, well below the 40 percent reported for the actual cases of triennial recommendations.

To be even more conservative (and partially relax the assumption that the drop in Figure 1 is only due to a change in management recommendations), we look at the 100 firms with the highest support for triennial among firms with annual recommendations after March 31st. Again, the average support for triennial, at 22.0 percent, is still considerably below 40 percent. Based on this analysis, it appears that the association between shareholder votes and management recommendations is likely (and mostly) the result of management influence on

²⁵ In untabulated tests we find that the drop in the frequency on triennial recommendations is not due to differences in firm characteristics between the firms with a meeting early in the proxy season and the other firms.

²⁶ An example would be if the lower frequency of triennial recommendations in the second part of the proxy season reflected management’s desire to avoid the ‘hassle’ of a confrontation with shareholders with little chance of success (in view of the results of the early part of the proxy season), a factor unlikely to affect shareholders’ voting decisions.

shareholder votes rather than the manifestation of an omitted variable affecting both management recommendations and shareholders' votes.

Overall, our evidence in Section 3.2 and 3.3 suggests that our estimate of the association between management recommendations and shareholder votes mostly captures an incremental and causal effect of management recommendations on shareholder votes.

3.4 Does management credibility affect management influence over shareholder votes on SOP frequency?

Is the estimate of management influence obtained in Table 2 similar across firms, reflecting certain shareholders' policy to "blindly" follow management recommendations, or does it vary cross-sectionally? If so, what factors determine the extent of management influence?

We start from the premise that by voting in favor of a triennial frequency shareholders essentially renounce some monitoring power and, thus, "trust" management with more discretion over compensation choices. Hence, we expect shareholders to be less likely to follow management's triennial recommendations when management credibility (as perceived by voting shareholders) is lower, particularly with respect to executive pay. To examine this hypothesis, in panel A of Table 3 we use four different measures of management credibility. The first is a summary measure of the perceived quality of the firm's compensation practices: an indicator equal to one if the company received more than 20 percent of votes against their compensation plan at the (contemporaneous) 2011 SOP vote (*High Votes Against SOP*, equal to one at 13.8 percent of the sample firms). Ertimur et al. (2013) show that votes against the SOP proposal are higher at firms with a perceived past disconnect between performance and CEO pay and with a negative recommendation from the proxy advisors, which, in turn, single out firms with excessive perks and firms with certain provisions in their severance agreements (e.g. excise tax gross-ups). If shareholders view an annual SOP vote as a means to impose greater accountability, support for the triennial frequency recommended by management should be lower when there are concerns with the quality of the current compensation practices (as proxied for by higher SOP voting dissent).

Insert Table 3 about here

The second and third measures capture shareholders' confidence in management as revealed by past shareholder votes. *High Votes Withheld from Directors* is an indicator variable equal to one if the maximum votes withheld from directors over the 2008-2010 annual meetings exceed 20 percent, a level viewed as expression of substantial dissatisfaction with board performance (Del Guercio et al. 2008). Frequent reasons for high votes withheld from directors are the board's failure to implement shareholder proposals, lack of

independence of some board members, low attendance of board meetings and, particularly in recent years, perceived failures in monitoring executive pay (Del Guercio et al. 2008; Cai et al. 2009; Fischer et al. 2009; Ertimur et al. 2011, 2014). The indicator is equal to one for 41.3 percent of the sample firms, reflecting the increasing use of "withhold" votes by activists in recent years. *High Votes Against Mgmt Proposals* is an indicator equal to one if the maximum votes cast against management proposals over the 2008-2010 period is more than 20 percent, a relatively rare occurrence (only 4.1 percent of the sample firms). A significant portion of management proposals are proposals to adopt or renew an equity incentive plan, with negative votes usually triggered by concerns about excessive dilution and certain controversial features, such as repricing, reload and evergreen provisions (Thomas and Martin 2000; Morgan and Poulsen 2001; Morgan, Poulsen, and Wolf 2006). In brief, both measures capture shareholders' past skepticism about management actions, also (but not only) with respect to executive pay.²⁷ We expect less shareholder support for management recommendations in firms with this type of history.

While the three measures above are based on shareholder votes, our fourth and final variable is a measure of management credibility based on management disclosures to investors: *Mgmt Forecast Error*, the average absolute annual management forecast error in 2010. Since not all companies issue such a forecast, we also include an indicator denoting a forecast issuer (*Mgmt Issues Forecast*). In line with the literature on management forecasts (e.g. Hilary and Hsu 2011; Lee, Matsunaga, and Park 2012), we conjecture that management issuing less accurate earnings forecasts (relative to the ex post reported earnings) will be perceived as less credible, leading to lower support for management triennial recommendations.

To empirically test our predictions, in Table 3 we perform a multivariate analysis of the voting outcome for the sub-sample of companies that recommended triennial SOP frequencies. As in Table 2, the dependent variable is *SWOP Votes for Triennial*. In panel A, Model (1), we include the same variables as in Table 2. Then, in Models (2)-(5) we add our proxies for management credibility. Consistent with our predictions, we find that shareholders are less inclined to follow management recommendation in favor of triennial SOP votes when perceived management credibility is lower. All four of our measures (*High Votes Against SOP*, *High Votes Withheld from Directors*, *High Votes Against Mgmt Proposals* and *Mgmt Forecast Error*) are associated with

²⁷ We obtain similar results when we redefine both variables to capture executive pay concerns only. In particular, we redefine *High Votes Against Mgmt Proposals* as an indicator variable equal to one if the maximum votes cast against compensation-related management proposals over the 2008-2010 period is more than 20 percent, and we redefine *High Votes Withheld from Directors* as an indicator variable equal to one if the maximum votes withheld from compensation committee members over the 2008-2010 annual meetings exceeds 20 percent. Note that the latter variable is a noisy proxy for compensation-related votes withheld, since votes may be withheld from a director who sits on the compensation committee member for reasons unrelated to executive pay.

lower voting support for triennial SOP frequencies, also when included at the same time (Model (6)). In untabulated tests, we replace the four variables with a single factor capturing management credibility and continue to find a significant and negative effect of management credibility on the association between management recommendations and shareholder votes.

Table 3, panel A focuses on the subset of firms where management recommends triennial, on the ground that management credibility is likely to matter only (or more) for these firms, where management essentially asks shareholders to renounce some monitoring power and “trust” management. For firms where management recommends annual (thus giving more monitoring power to shareholders) credibility should not play an important role. To test this conjecture, in panel B we run the model in panel A for the full sample with additional interaction terms between *Mgmt SWOP Rec: Triennial* and each of the four credibility proxies. The four interaction terms are negative and significant, while the coefficients on the four credibility variables (capturing the effect of management credibility at firms where management recommended an annual frequency) are generally not significant (except for *High Votes Against Mgmt Proposals*, but in that case the coefficient is positive, rather than negative).²⁸ The sum of the main effect and the interaction terms (untabulated) is also significant and negative for all four measures (*p*-values of 0.011 or less) suggesting that management credibility plays a role only at firms where management recommends a triennial frequency, as conjectured.

Appendix 1 indicates that one of the key arguments in favor of a triennial vote is that it better aligns with the long-term horizon of the compensation plan. In untabulated tests, we fail to find evidence that shareholders are more likely to follow management recommendations for triennial SOP votes when the horizon of the compensation plan is longer, perhaps because of the noisy nature of the proxies we use.²⁹

In summary, our analyses suggest that management recommendations have a significant influence on shareholder votes and that this influence is a function of management credibility with shareholders and concerns with the quality of the compensation plan.

²⁸ The coefficient of *High Votes Against Mgmt Proposals* and its interaction with *Mgmt SWOP Rec: Triennial* should be interpreted with caution since they are likely driven by few observations (*High Votes Against Mgmt Proposals* is equal to one only in a small number of cases, as noted on p. 17).

²⁹ We use three sets of proxies. First, we include a measure of *CEO Pay Duration* developed by Gopalan et al. (2012), namely, a weighted average duration of four components of pay (salary, bonus, restricted stock and options), with salary and bonus being assigned a vesting period of zero. Since we do not have immediate access to the data required to compute a firm-specific measure (e.g. detailed vesting schedules) we use the industry average CEO pay duration (based on the Fama-French 48 industries’ classification) reported in Table 3 of Gopalan et al. (2012), which ranges between 0.7 and 2.1 years. Second, to proxy for firm-specific CEO pay duration, we include *Book-To-Market Ratio*, *R&D/Total Assets* and *Volatility*, reflecting Gopalan et al.’s (2012) evidence that CEO pay duration is longer in firms with more growth opportunities, greater R&D intensity and lower risk. Finally, since equity pay tends to have higher duration than cash pay, we include the percentage of equity pay in total CEO pay (*CEO Equity Pay Ratio*).

4. Say on Pay frequency choice and firms' responsiveness to Say on Pay votes

4.1 Firms' choice of SOP frequency

The Dodd-Frank Act mandated that firms disclose their decision with respect to the frequency of future SOP votes by filing an 8-K within 150 days of the SWOP vote. We collect this information from 8-K filings for 1,346 of our 1,365 sample firms (19 firms merged or delisted prior to disclosing their adoption decision).

Table 4 reports the distribution of the frequency choice by management recommendations and yields two insights. First, while recommended by management in 61.6 percent of the cases (Table 1), the annual frequency is adopted by 90.7 percent of the firms (1,221 out of 1,346), with most of the remaining firms adopting a triennial frequency. Second, in all but 12 cases the adopted frequency is the one that won most votes by shareholders, thereby explaining the widespread adoption of the annual frequency.³⁰ This high rate of responsiveness to a non-binding shareholder vote is unusual: the rate of adoption of non-binding governance related and compensation-related shareholder proposals approved by a majority vote is about 30-40 percent, depending on the time period (Ertimur et al. 2010, 2011). More recently, Ertimur et al. (2013) report that 55 percent of the firms with a negative recommendation on SOP from ISS respond by making changes to their compensation plan.

Insert Table 4 about here

4.2 Firms' responsiveness to SOP votes: Does the adoption of a triennial frequency reduce firms' responsiveness?

Supporters of annual SOP votes argued that a triennial frequency would reduce boards' accountability and responsiveness (Appendix 2). In this section, we provide more direct evidence on this question. To do so, we exploit the fact that in addition to the vote on the frequency of future SOP votes, in 2011 firms faced the first mandatory SOP vote and were requested to disclose in the 2012 proxy statement if and how they took into account the 2011 SOP vote. Hence, we can examine whether triennial adopters - facing the next SOP vote in 2014 only – were less likely to make changes to their compensation practices after substantial shareholder opposition voiced at the 2011 SOP vote relative to annual adopters subject to the same opposition but already facing the next SOP vote in 2012.

³⁰ All of the 12 “off-diagonal” cases involve firms where management recommended a triennial frequency. Ten of them adopted an annual frequency, following the choice of the majority of peer firms (and their shareholders), even though the triennial option had won the highest number of shareholder votes. The other two firms adopted a triennial frequency (the frequency recommended by management) in spite of losing the vote.

For this purpose, we condition our sample on companies that received a negative recommendation on SOP by ISS in 2011. Ertimur et al. (2013) document a strong association between negative ISS recommendations and shareholder votes against the SOP proposal in 2011, with 26.8 percent more votes cast against SOP when ISS issues a negative recommendation. Hence, after the vote, boards at these firms were under pressure to engage with shareholders and make changes to the compensation plans. To increase the power of the test, we expand our sample to cover all companies included in the Russell 3000 index (the full universe covered by the Voting Analytics dataset). The resulting sample consists of 273 firms with an ISS against recommendation (203 annual adopters, 70 triennial adopters), averaging 29.8 percent votes against the SOP proposal. For each of these firms, we read the 2012 proxy filing and create an indicator equal to one if the firm discloses compensation changes made in response to the 2011 SOP vote (often in consultation with their institutional investors; see Appendix 3 for examples of these disclosures).

Table 5 summarizes the results of our analysis. Of the 203 companies with annual frequency (and thus facing another SOP vote in 2012), 67.5 percent made changes to their compensation plans in response to the 2011 vote. In stark contrast, of the 70 firms adopting a triennial frequency (and thus facing another SOP vote only in 2014), only 14.3 percent of companies (10 out of 70) changed their compensation practices in response to the 2011 SOP vote.³¹ The differences are statistically significant at the 1 percent level (p -value = 0.000, untabulated).

Insert Table 5 about here

This evidence suggests that a less frequent shareholder vote results in lower responsiveness to shareholder concerns, consistent with arguments brought forward by proponents of annual SOP votes. We consider two alternative explanations. The first one is that the compensation changes made by annual adopters are immaterial and artificially inflate the rate of responsiveness relative to the triennial adopters. However, annual adopters reporting changes to their compensation plan experience a large decrease in votes against SOP (from 39.6 percent in 2011 to 19.6 percent in 2012, on average) suggesting that these changes are perceived by voting shareholders as an adequate and material response to the 2011 vote. Also, our reading of the disclosed

³¹ If this difference merely reflected firm characteristics (e.g. triennial adopters are firms that recommended triennial because they are less responsive in the first place) rather than the effect of the adopted frequency, we should observe similarly low responsiveness also for the subset of 70 annual adopters that had recommended triennial. Instead, the rate of compensation changes in this sub-sample is 64.3 percent, significantly higher (at 1 percent level) than for the sample of triennial adopters.

compensation changes suggests that, if anything, the changes made by annual adopters tend to be more salient and to involve multiple features of the compensation plan.³²

A second potential explanation is that the lower responsiveness by triennial adopters is due to the lower SOP voting dissent these firms experience relative to annual adopters: 16.0 percent versus 34.5 percent.³³ Previous studies suggest that firms' responsiveness to SOP proposals is a function of the voting outcome (Ertimur et al. 2013).³⁴ Hence, the lower responsiveness of triennial firms may reflect the lower SOP voting dissent rather than the chosen SOP frequency.

To examine this possibility we restrict the sample of annual adopters to firms with less than 30 percent in terms of *% SOP Voting Dissent 2011*. In addition to making the samples more similar in terms of SOP dissent (16.0 percent versus 20.3 percent), this threshold is particularly interesting because ISS stated it would issue another negative SOP recommendation in 2012 and withhold recommendation against compensation committee members if companies receiving less than 70 percent voting support in 2011 failed to adequately address compensation concerns. Ertimur et al. (2013) document a significant drop in firms' responsiveness to SOP votes below this threshold. Consistent with their evidence, as shown in the last column of Table 5, the rate of responsiveness by annual adopters is lower below this threshold, but still more than twice as high as for triennial adopters: 31.9 percent of the annual adopters made changes to their compensation plans in response to the 2011 vote, versus only 14.3 percent of the triennial adopters (the difference remains statistically significant; p -value=0.012).

In Table 6 we conduct a multivariate test through a logistic regression where the dependent variable is an indicator equal to one (zero) if the firm discloses (does not disclose) compensation changes in response to the SOP vote. In Model (1) we include as independent variable an indicator, *Triennial Adopter*, equal to one (zero) if the firm adopted a triennial (annual) frequency. Next, we add first the SOP voting dissent (Model (2)) and then a series of firm characteristics that may capture responsiveness to shareholder pressure, such as insider ownership, institutional ownership, size, and performance (Model (3)). Across the three models, the coefficient on the

³² These changes cover a variety of issues. The most frequent changes are the introduction of performance-based vesting conditions in equity grants, the toughening of performance goals in short- and long-term incentive plans, the elimination or substantial reduction of certain perks (e.g. personal aircraft use) and tax gross-ups on perks (e.g. tax gross-ups upon the vesting of executives' outstanding restricted stock awards), and the removal of modified single-trigger provisions and excise tax gross-ups from change-in-control severance agreements.

³³ The difference is partly driven by the higher percentage of votes controlled by insiders in triennial adopters (33.6 percent) versus annual adopters (10.1 percent). When we re-compute SOP voting dissent in terms of non-insider votes, the difference, while still relevant, is somewhat lower: the percentage of non-insider votes cast against SOP at triennial adopters is 26.7 percent, versus 38.4 percent at annual adopters.

³⁴ The relation between voting outcome and subsequent responsiveness is also evident in our data: in the sample of firms disclosing compensation changes, *% SOP Voting Dissent 2011* is 38.4 percent. The corresponding figure for firms with no compensation changes (untabulated) is 19.7 percent.

indicator for triennial adopters is negative and significant. As for economic significance, in Model (3) the coefficient implies that (holding all other variables at their median values) the predicted likelihood of a post-SOP compensation change is 62 percent for annual adopters versus 39 percent for triennial adopters. With respect to the other control variables, consistent with prior research, responsiveness is higher in firms with greater shareholder pressure (higher SOP voting dissent, higher institutional ownership) and worse performance. Taken together, the evidence presented in Tables 5 and 6 suggests that a less frequent vote is associated with lower responsiveness to shareholder concerns, echoing a similar finding in Faleye (2007) that firms with classified boards (another form of less frequent scrutiny) are less likely to implement shareholder-approved shareholder proposals.

Insert Table 6 about here

While it is difficult in our setting to directly examine whether a less frequent SOP vote is value-destroying, prior studies document positive valuation effects associated with the adoption of governance provisions that increase management accountability and responsiveness to shareholders, such as annual elections of directors (Bebchuk and Cohen 2005; Bebchuk et al. 2011), majority voting (Ertimur et al. 2015), proxy access (Becker et al. 2013; Cohn et al. 2014) and, especially relevant to our study, say on pay (Cai and Walkling 2011; Cuñat et al. 2014; Ferri and Maber 2013). On a related note, Cuñat et al. (2012) find a positive stock price reaction to an increase in the probability of adoption of governance-related shareholder proposals, suggesting that, on average, greater responsiveness to shareholder votes is value-enhancing. Collectively (albeit indirectly), these studies suggest that our evidence of lower management accountability and responsiveness under a less frequent SOP vote is potentially value-relevant, further enhancing the economic significance of our findings and their relevance to investors and policy-makers.

5. Conclusions

The Dodd-Frank Act mandated firms to hold an advisory vote on the frequency of future SOP votes in 2011, giving shareholders a choice between an annual, a biennial and a triennial frequency. While proxy advisors supported an annual frequency, management recommendations varied across companies, a unique feature which we exploit to provide an estimate of the influence of management recommendations and examine its determinants and consequences.

Using a sample of S&P 1500 firms, we find that management recommendation for a given frequency is associated with 25.9 percent more voting support for that frequency, a figure close to estimates of the influence

of proxy advisors in prior studies. Additional tests suggest that the association is likely to capture a causal effect. Management credibility with shareholders (as reflected by past votes) is a key determinant of management influence on voting outcomes.

While the votes were non-binding, virtually all companies decided to adopt the SOP frequency that garnered most votes. Interestingly, firms that adopted a triennial frequency (because shareholders trusted management recommendation and voted for triennial)—and, thus, facing the next SOP vote in 2014—were significantly less likely to make changes to their compensation practices in response to adverse SOP votes relative to firms that adopted an annual frequency (and, thus, faced the next SOP vote in 2012). The result is not attributable to differences in firm characteristics or voting outcomes, and is consistent with the notion that a less frequent vote reduces management responsiveness to shareholders. Future research can examine whether this lower responsiveness results in sub-optimal compensation practices and lower firm value and whether (at the next vote) voting shareholders penalize triennial adopters for their compensation practices in the off-years. Our results contribute to the literature on shareholder voting and executive pay and call for more research on the influence of management on shareholder votes.

Appendix 1 Management recommendations on the frequency of Say-on-Pay votes

Examples of management recommendations in favor of triennial SOP votes

“The design of the compensation program is stable year over year and supports the following core business strategies of ExxonMobil: long-term growth in shareholder value; risk management, operational excellence; disciplined, selective, and long-term focus in making investments; and Industry-leading returns on capital and superior cash flow. In view of this, a triennial frequency is more consistent with the long-term orientation of our business and compensation strategies as outlined in the “Compensation Discussion and Analysis” section of this proxy. A triennial frequency also gives shareholders a longer period of time to evaluate the effectiveness of key compensation strategies and related business outcomes. Conversely, an annual vote could encourage short-term orientation and contradict the key fundamentals of our approach to managing the business and building long-term, sustainable growth in shareholder value. Consistent with the Board’s commitment to excellence in governance and responsiveness to shareholders, the Board will, however, follow the frequency that receives the plurality of votes cast by shareholders on this non-binding resolution. Furthermore, if the plurality of votes cast by shareholders is for triennial frequency, the Board will commit to hold the next frequency vote in three years, rather than the statutory requirement to hold this vote at least every six years. This approach recognizes that the frequency vote is a new requirement and shareholders need an opportunity to evaluate and assess the stability and the effectiveness of the compensation program before committing to a six-year period between management-sponsored frequency votes. In this way, shareholders will be assured the opportunity to re-evaluate the frequency issue in coordination with the next advisory vote to approve executive compensation. For the reasons discussed above, the Board recommends that future advisory votes on executive compensation be held every three years.” (*Exxon Mobil, Proxy Statement, April 13, 2011*)

“Our Board of Directors has determined that holding a “say-on-pay” vote every three years is most appropriate for Ciena and recommends that you vote to hold such advisory vote in the future every third year, for the following reasons. First,...holding an advisory vote every three years offers the closest alignment with Ciena’s approach to executive compensation...Specifically, our executive compensation programs are designed to enhance the long-term growth of Ciena and reward performance over a multi-year period. For example, the stock awards granted to our executive team generally have four-year vesting periods, and the performance stock awards granted to our executives in fiscal 2011 included a performance period over multiple fiscal years. The Board believes that there is some risk that an annual advisory vote on executive compensation could lead to a short-term stockholder perspective regarding executive compensation that does not align well with the longer-term approach used by our Compensation Committee. We believe a three-year cycle for the stockholder advisory vote will provide investors the most meaningful timing alternative by which to evaluate the effectiveness of our executive compensation strategies and their alignment with Ciena’s performance, financial results and business. Second, the Board believes that a triennial “say on pay” vote would not foreclose stockholder engagement on executive compensation during interim periods. Specifically, Ciena provides stockholders with other meaningful means by which to share their views about our executive compensation practices. Stockholders can currently provide input to the Board by communicating directly with the Board, its committees or individual directors as indicated in “Corporate Governance and the Board of Directors — Communicating with the Board of Directors” above. Thus, we view the advisory vote on executive compensation as an additional, but not exclusive, opportunity for our stockholders to communicate their views on Ciena’s executive compensation programs. The Board weighed these reasons against the arguments in support of conducting the advisory vote annually. In particular, the Board considered the value of the opportunity for stockholder input at each annual meeting, as well as the belief that annual votes would promote greater accountability on executive compensation. Although the Board believes that these and other positions put forth in favor of an annual “say on pay” vote are not without merit, on balance, the Board believes that a triennial approach is most appropriate for Ciena and recommends that voting alternative to stockholders. The Governance and Nominations Committee of the Board of Directors intends to periodically reassess that view and, if it determines appropriate, may provide for an advisory vote on executive compensation on a more frequent basis.” (*Ciena, Proxy Statement, February 2, 2011*)

Examples of management recommendations in favor of biennial SOP votes

“In 2010, when we gave our shareholders the opportunity to vote on our executive compensation policies and procedures, we indicated that the Board planned to submit an advisory vote every two years to foster a more long-term approach to evaluating our executive compensation program. At the same time, the Board believes that biennial votes provide assurance that the Board and the Compensation Committee remain accountable for executive compensation decisions on a frequent basis. Further, we maintain robust investor outreach activities through which we obtain ongoing feedback concerning our executive compensation program and how we disclose that program. In 2010, as has been the case for many years, we not only listened to our

investors' views; we actively sought out those views and welcomed and implemented a number of their suggestions. Accordingly, your Board believes that a biennial advisory vote is preferable, as it would foster a more long-term approach to evaluating our executive compensation program while maintaining accountability for executive compensation decisions. If a plurality of the votes cast on this matter at the Annual Meeting is cast in favor of biennial advisory votes on executive compensation, the Company would adopt this approach. Moreover, as a further commitment to our shareholders and to encourage their input, and even though the Company is legally required to hold advisory votes on the frequency of future advisory votes on executive compensation only once every six calendar years, the Board has determined that, should a plurality of the votes cast at the Annual Meeting express a preference for biennial advisory votes, the Company would hold frequency votes biennially as well. On this basis, the next advisory vote on executive compensation, as well as the next frequency vote, would take place at the Company's 2013 Annual Meeting. Although the frequency vote is non-binding, the Compensation Committee and the Board will review the results of the vote. Consistent with Pfizer's record of shareholder responsiveness, they will consider shareholders' views and take them into account in determining the frequency of future advisory votes on executive compensation." (*Pfizer, Proxy Statement, March 22, 2011*)

Examples of management recommendations in favor of annual SOP votes

"Our Board believes that say-on-pay votes should be conducted every year so that our stockholders may provide us with their direct input on our compensation philosophy, policies and practices, as disclosed in our proxy statement each year. Our Board's determination was based upon the premise that NEO compensation is evaluated, adjusted and approved on an annual basis by our Executive Compensation Committee and that the metrics that are used in determining performance-based award achievements are annual metrics." (*Adobe Systems, Proxy Statement, March 10, 2011*)

"The Board recommends that the advisory vote to approve named executive officer compensation be held each year as part of our annual stockholders meetings. The Board believes an annual advisory vote can provide relatively timely feedback on our executive compensation arrangements, plans, programs and policies." (*KB Home, Proxy Statement, February 25, 2011*)

"For each of the past two years, we have provided our stockholders with the right to cast an advisory vote on our executive compensation program and policies for our Named Executives. Therefore, the Board has determined that an advisory vote on executive compensation that occurs every year is the most appropriate alternative for our company going forward. Accordingly, the Board recommends that you vote for an annual advisory vote on executive compensation." (*Par Pharmaceutical, Proxy Statement, March 30, 2011*)

Examples of management "no" recommendations

"The Board of Directors has determined not to make a recommendation on this proposal, but to wait and consider the views of our stockholders before making any determination as to the appropriate frequency of the stockholder advisory vote on executive compensation." (*Advanced Micro Devices, Proxy Statement, March 10, 2011*)

"Intel has voluntarily conducted annual "say on pay" votes in each of the last two years, but we welcome the opportunity to submit the three alternative frequencies to our stockholders for consideration. Some commentators have said that a two-year or three-year frequency might be better aligned with compensation trends or programs and would place less emphasis on the results or actions of a single year; other commentators have stated that an annual vote provides a company with more opportunity for timely feedback. We are prepared to operate under any of the three alternative frequencies and look forward to the stockholder vote for input. Because of this rare circumstance in which federal law is requiring that three alternatives be offered to stockholders for consideration, the Board is not making a recommendation as to a favored alternative." (*Intel, Proxy Statement, April 4, 2011*)

"A majority of the shares of common stock represented at the annual meeting and entitled to vote at the annual meeting is required for advisory approval of this proposal. If none of the alternatives receives a majority vote, the frequency receiving the highest number of votes will be the frequency selected by stockholders. Although the Dodd-Frank Act requires that this vote only be advisory, the Board will present future Say on Pay votes with the frequency selected by stockholders, until another such vote on frequency by the stockholders occurs. The Board does not have a recommendation on the frequency of advisory votes on the compensation of Occidental's named executive officers." (*Occidental Petroleum, Proxy Statement, March 24, 2011*)

“The following information is provided for your consideration when evaluating the appropriate frequency for an advisory vote:

- UTC’s executive compensation programs are heavily weighted toward long-term performance and related incentive opportunities, with the potential for actual payment occurring over a multi-year time span.
- The design of UTC’s executive compensation program changes infrequently, to retain alignment of compensation with long-term performance objectives...UTC’s current compensation programs are consistent with the longer-term view that the Compensation Committee takes with respect to the most important components of named executive officers’ compensation.
- A longer period between votes would provide greater opportunity for shareowners and advisory services to evaluate the operation of UTC’s executive compensation programs, and would facilitate more meaningful dialogue with shareowners...
- UTC’s practice has been to request that shareowners approve additional shares for future awards under the Company’s long-term incentive program on a triennial basis. In each case, these triennial votes have been accompanied by extensive dialogue between UTC and investors concerning UTC’s executive compensation practices.
- The Board believes that UTC’s executive compensation programs have proven effective in generating enhanced shareowner value.

The Board thanks shareowners for considering the above information when voting on the appropriate frequency for an advisory vote. The Board of Directors is not making a recommendation on how shareowners should vote on the following resolution because it has decided to first consider the views of UTC’s shareowners...”(*United Technologies Corporation, Proxy Statement, February 25, 2011*)

Appendix 2 Frequency of SOP votes: proxy advisors' and institutional investors' positions

Institutional Investors

“As investors with a deep concern about executive pay, we are appealing to Boards of Directors to recommend an annual advisory vote on executive compensation and to investors to vote for the annual vote choice...for a number of reasons.

- *Shareholders expect and are accustomed to annual accountability:* Executive compensation is too important of an issue for only biennial or triennial consideration. Corporate governance best practice already supports an annual ratification of company auditors and the annual election of directors. Since the board compensation committee makes its decisions yearly regarding salary, discretionary bonuses, severance, etc., an annual shareholder vote is central to proper shareholder oversight. Also a routine positive vote on pay each year affirms to the board that it has presented a clear and convincing case to investors. As investors we also believe shareholders would not find an annual compensation vote burdensome. Shareholders already vote each year on a number of issues, including election of directors and ratification of auditors. There have also been Say on Pay votes for several years, including hundreds of banks receiving TARP funds, and most investors have already set up a system whereby companies deserving extra attention on compensation matters are prioritized for review and action. Investors also currently vote for the Board members on the Compensation Committee, discerning whether a No vote should be cast because of compensation concerns in a routine annual exercise...
- *An annual advisory vote is widespread standard practice in countries that require such votes:* Shareholders in Australia, France, The Netherlands, Norway, Spain, Sweden and the United Kingdom all vote annually on compensation matters. No other major developed country that provides for advisory votes on pay employs a biennial or triennial standard.
- *A biennial or triennial vote would result in less accountability and transparency:* ...The Compensation Committee makes some decisions every year, such as setting performance targets or awarding compensation that is not tied directly to performance (such as salaries, employment agreement approvals, discretionary bonuses, “golden hello’s” and severance). There should be an opportunity to vote whenever the Compensation Committee has acted.
- *A biennial or triennial vote might result in more adversarial shareholder action:* If an advisory vote occurs only every two or three years, disenchanted shareholders would be unable to express their concerns annually regarding company pay practices and may have to rely on tools such as letter writing, the filing of shareholder resolutions and voting against compensation committee nominees in the off years.

(Public statement by 39 institutional investors, including CalPERS, the New York State Common Retirement Fund, NYCERS, Hermes UK, Calvert Asset Management, Amalgamated Bank, Walden Asset Management, AFL-CIO, AFSCME, released on January 31, 2011)

“We will generally support a vote once every three years, in keeping with our belief that a properly constituted board, not the shareholder, is best able to address compensation matters in the normal course of fulfilling its responsibilities.... Our concern with an annual advisory vote on compensation is that it may compel boards to adjust compensation programs every year to demonstrate that they are effectively managing the compensation process. We believe this approach could lead to a focus on short-term objectives rather than on more stable, long-term objectives, or lead to inconsistencies in the compensation program without a clear long-term focus. In our view, an advisory vote on compensation every three years would remove these biases and better facilitate the development of a compensation program focused on promoting the long-term success of the organization. Let us be clear that we will still hold boards accountable for the compensation decisions made. We will continue to monitor annual compensation decisions of our investments, examining whether the board alters the compensation program, uses discretion inappropriately or makes other compensation decisions that in our view are not consistent with a pay-for-performance regime or the creation of long-term shareholder value. In situations where these and other concerns arise, we will consider withholding our support for the election of the compensation committee chair or, in more serious situations, the entire compensation committee of the board. ”

(Press release by the Ontario Teachers' Pension Plan, February 3, 2011)

“BlackRock will generally opt for a triennial vote on Say on Pay. We believe that shareholders should undertake an annual review of executive compensation and express their concerns through their vote on the members of the compensation committee. As a result, it is generally not necessary to hold a Say on Pay vote on an annual basis, as the Say on Pay vote merely supplements the shareholder’s vote on Compensation Committee members. However, we may support annual Say on Pay votes in some situations, for example, where we conclude that a company has failed to align pay with performance. ” *(Proxy Voting Guidelines for US Securities, March 2011, BlackRock)*

Proxy Advisors

Institutional Shareholder Services (ISS)

“In line with overall client feedback, ISS is adopting a policy to recommend a vote FOR annual advisory votes on compensation. The MSOP is at its essence a communication vehicle, and communication is most useful when it is received in a consistent and timely manner. ISS supports an annual MSOP vote for many of the same reasons it supports annual director elections rather than a classified board structure: because this provides the highest level of accountability and direct communication by enabling the MSOP vote to correspond to the majority of the information presented in the accompanying proxy statement for the applicable shareholders’ meeting. Having MSOP votes every two or three years, covering all actions occurring between the votes, would make it difficult to create the meaningful and coherent communication that the votes are intended to provide. Under triennial elections, for example, a company would not know whether the shareholder vote references the compensation year being discussed or a previous year, making it more difficult to understand the implications of the vote.” (*ISS, U.S. Corporate Governance Policy 2011 Updates, November 19, 2010*)

Glass Lewis & Co.

“We believe companies should submit say-on-pay votes to shareholders every year. We believe that the time and financial burdens to a company with regard to an annual vote are relatively small and incremental and are outweighed by the benefits to shareholders through more frequent accountability. Implementing biannual or triennial votes on executive compensation limits shareholders’ ability to hold the board accountable for its compensation practices through means other than voting against the compensation committee. Unless a company provides a compelling rationale or unique circumstances for say-on-pay votes less frequent than annually, we will generally recommend that shareholders support annual votes on compensation.” (*Glass Lewis & Co., Proxy Paper Guidelines 2011 Proxy Season*)³⁵

³⁵ In our sample, with the exception of Berkshire Hathaway and Amazon, Glass Lewis always recommended an annual SOP vote.

Appendix 3 Firms' response to high votes against Say on Pay in 2011: excerpts from the 2012 proxy filings for ...

...firms adopting annual frequency of SOP Votes

Umpqua Holdings Corp., Proxy Statement, April 17, 2012, Dissent in 2011: 61.8%.

“Our Response to Say on Pay Vote:

A majority of the stockholders who voted on our 2011 “Say on Pay” proposal voted against the proposal. In response to that vote, our board of directors, the Committee and our executive team took immediate and thorough action:

- a. The Committee engaged Towers Watson, a leading human resources consulting firm, to perform a review of our executive compensation program and make recommendations for enhancements.
- b. Our executive team agreed to amend the equity grants issued in January 2011 to include a vesting condition that limits vesting to the extent that Umpqua’s total shareholder return (TSR) does not exceed the KRX total return index, a regional bank index.
- c. We met with representatives of Institutional Shareholder Services (ISS) and Glass Lewis to fully understand their view of the “pay for performance” aspect of our compensation program.
- d. We engaged Phoenix Advisory Partners to advise on outreach to our institutional shareholders who voted against our say on pay resolution.
- e. We met with many of our large institutional shareholders who voted against our 2011 say on pay resolution to advise them of our response and to understand their concerns with our program.
- f. We strengthened our stock ownership policy to require that named executive officers acquire and maintain positions in company stock with a value ranging from 150% to 400% of base salary.
- g. We enhanced our policy to require that at least 50% of all equity awards to executive officers will be “performance based”. In 2011, 100% of the equity awards to executives were “performance-based”.
- h. We revised our “hold to retirement” policy to remove the age 62 exemption. 75% of all net equity awards must be held to retirement.”

Jacobs Engineering Group Inc., Proxy Statement, December 16, 2011, Dissent in 2011:53.7%

During fiscal 2011, the equity compensation component of the Company’s pay programs was reevaluated, taking into account the outcome of the shareholder vote on executive compensation at the 2011 Annual Meeting of Shareholders, consultations with the independent consultant of the HR&C Committee, and discussions with major institutional shareholders. As a result of these considerations, the long-term equity based incentive program now has the following features:

- Instead of time-based restricted stock grants, which were a significant portion of the 2010 equity compensation program, performance-based market stock unit (“MSU”) grants (the structure of the MSU grants is described below under “Compensation Discussion and Analysis—Compensation Elements—2011 Equity Awards”), were awarded to the NEOs;
- the CEO MSU grant includes a second performance condition based upon the Company’s total shareholder return compared to its peer group over a three-year performance period;
- The proportion of long-term incentives delivered in the form of stock options granted to the NEOs was reduced so that MSUs comprise the majority of their equity compensation in both shares and value;
- In fiscal 2011 the Company increased the required CEO Company stock ownership guideline from five times to six times base salary;
- New equity award agreements were modified in fiscal 2011 to provide for accelerated vesting after a change in control only if the executive is terminated without cause or quits for good reason (“double trigger vesting”);
- In fiscal 2011 the Company adopted a clawback policy that applies when inaccurate financial statements have affected incentive award payments to executive officers...”

Alexandria Real Estate Equities Inc., Proxy Statement, April 27, 2012, Dissent in 2011: 37.5%

“At our May 2011 annual meeting, we held a non-binding stockholder advisory vote to approve the Company’s executive compensation. Over 62% of votes cast were voted for the proposal and approximately 37% of votes cast were voted against the proposal...the Committee began a comprehensive study of potential changes to our compensation program to take into account constructive input received from stockholders and to help to ensure that the Company’s compensation program continues to reflect good corporate governance and new and emerging best practices....The principal change is the new employment agreement between the Company and Mr. Marcus. The principal differences between the new agreement and Mr. Marcus’s previous employment agreement are summarized below. ...”

Principal Changes to the Employment Agreement of Mr. Marcus	
Previous Agreement	New Agreement
Annual incentive bonus based on subjective evaluation by the Committee.	Formulaic annual incentive bonus program for 2012 based on achievement of pre-established corporate goals (60%) and individual performance (40%).
Guaranteed bonus equal to 50% of base salary.	No guaranteed bonus.
Long-term incentives provided solely in the form of time-based restricted stock, which was awarded based on subjective performance reviews.	Two-pronged long-term incentive program for 2012 that will include <i>performance-based</i> restricted stock, which can be earned based on relative and absolute TSR (50%) and <i>time-based</i> restricted stock (50%), which will vest over three years and is awarded based on a subjective performance review.
Initial term of employment was for six years, with automatic annual renewals thereafter.	Term of employment is for three years, with no automatic renewals.
Section 280G excise tax gross-up upon qualifying termination of employment in connection with a Change of Control.	Eliminated.
Tax gross-up reimbursement of up to \$1 million per year upon the vesting of shares of restricted stock as received.	Eliminated.
Basis for change in control or termination payment was annual salary plus most recent bonus.	Basis for change in control or termination payment is annual salary plus average bonus over previous three years.

(source: Alexandria Real Estate Equities Inc., Proxy Statement, April 27, 2012, p. 26)

Monsanto Co., Proxy Statement, December 9, 2011, Dissent in 2011: 33.8%

At our January 2011 annual meeting, our shareowners voted to approve our fiscal 2010 executive compensation program, but approximately one-third of the votes cast did not support the measure. The Committee was pleased that a significant majority of our largest shareowners supported the proposal ... We also focused on seeking feedback from those of our top 50 shareowners that we learned, from their Form N-PX filings or correspondence, did not support our fiscal 2010 executive compensation program... Many of these investors were not available, or were unwilling, to engage in a dialogue about our executive compensation program. From those shareowners available to talk with us, we could not identify a common reason for the negative votes or a common suggestion for improvements to our executive compensation program. However, we did appreciate the opportunity to engage in thorough discussions of our executive compensation program, and a number of these investors informed us the dialogue had enabled them to increase their understanding of our program... The Committee has reviewed the investor feedback received in connection with the last annual meeting and... no specific component of the program was altered based on shareowner feedback...

...firms adopting triennial frequency of SOP Votes

Eagle Bulk Shipping Inc., Proxy Statement, April 23, Dissent in 2011: 42.9%.

"Shareholders approved the say-on-pay vote relating to our 2010 compensation, and approved the recommendation of the Board of Directors to hold future say-on-pay votes every three years. As a result, the next say-on-pay vote will be held no later than the 2014 Annual Meeting of Shareholders. In light of the approval of the say-on-pay vote, the Compensation Committee did not make specific changes to our executive compensation program in response to the vote..."

Primo Water Corp., Proxy Statement, March 30, 2012, Dissent in 2011: 32.0%.

"A majority (68%) of the votes cast on the "say on pay" proposal at that meeting were voted in favor of the proposal... The Compensation Committee believes that these results affirm our stockholders' support of the Company's approach to executive compensation..."

SandRidge Energy Inc., Proxy Statement, April 9, 2012, Dissent in 2011: 29.0%

"At our 2011 annual meeting, the Company's stockholders approved the compensation provided to our named executive officers in an advisory vote with over 70% of ballots cast being voted to approve the executive compensation program. The Compensation Committee believes this affirms the stockholders' support of the Company's executive compensation program and, therefore, did not change its overall approach to compensation during 2011."

Covanta Holding Corp., Proxy Statement, March 27, 2012, Dissent in 2011: 38.8%

"Our stockholders voted in favor of the 2010 compensation of our named executive officers in our Say on Pay advisory vote at our 2011 Annual Meeting of Stockholders. However, due in part to the relatively narrow margin of approval, and concerns raised by both a proxy advisory firm and certain institutional stockholders regarding the linkage between performance and pay, we engaged in discussions with the proxy advisory firm and certain of our institutional stockholders in order to understand the reasons for their negative recommendations... These discussions highlighted the difference in the metrics used by the proxy advisory firm and stockholders to measure performance (total stockholder return compared to a peer group) and how the Growth Equity Awards

were required to be reported in our 2010 Summary Compensation Table...Recognizing the importance of our stockholders' concerns and the need to address them in a manner consistent with the goals of our executive compensation program, we reviewed our compensation approach...Accordingly, in March 2012 the Compensation Committee approved, for future grants, a new program of performance-based equity awards for named executive officers that will only vest upon satisfaction of TSR-based performance as measured against a peer group comprised as follows: (1) 50% Standard & Poors 400; (2) 25% Dow Jones Waste Index; and (3) 25% Dow Jones Electric Utilities index."

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Figure 1 Say-When-On-Pay (SWOP): frequency of management recommendations in favor of biennial/triennial say on pay votes during the 2011 proxy season

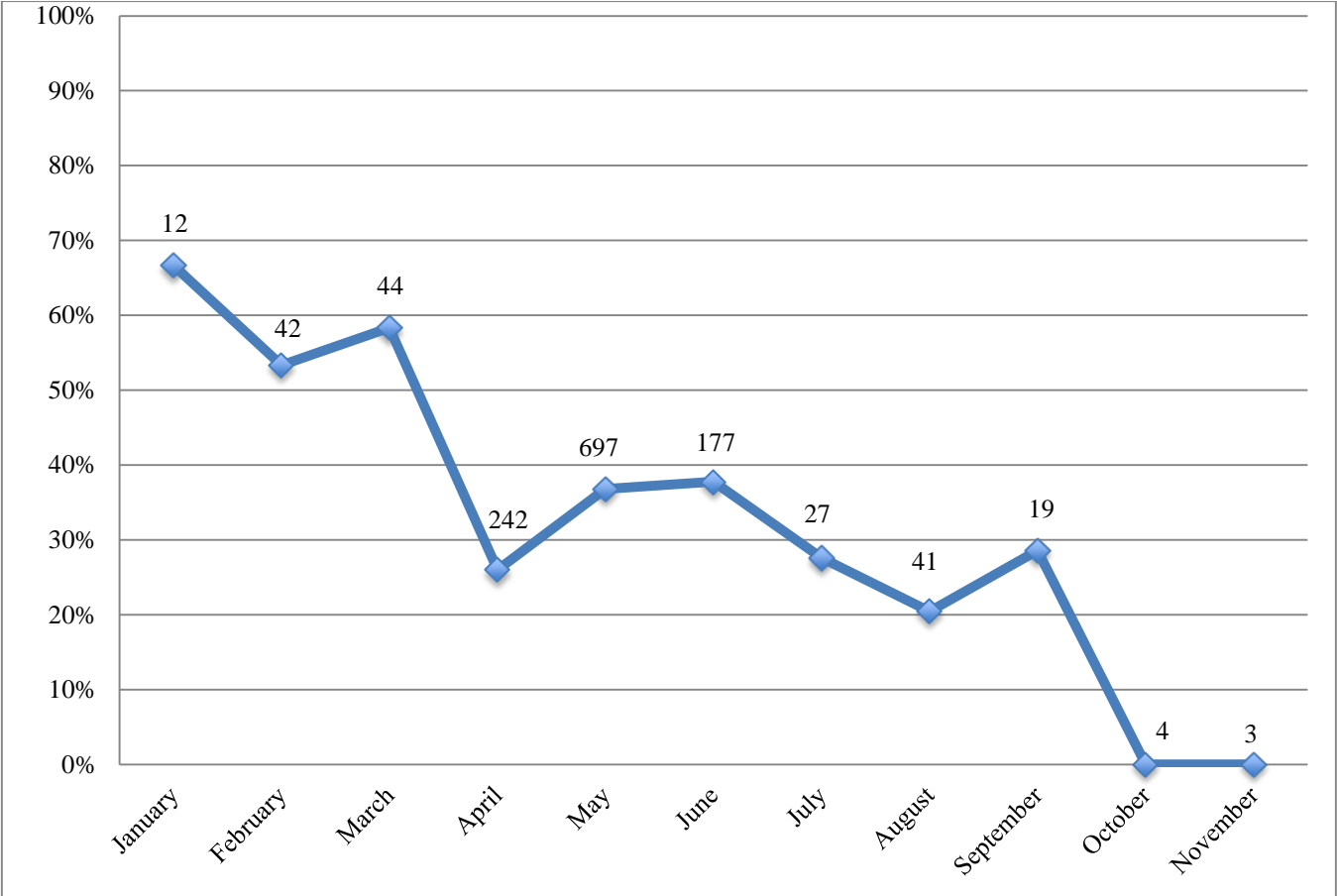


Figure 1 presents the frequency of management say-when-on-pay (SWOP) recommendations in favor of holding biennial or triennial SOP votes by month for the annual meeting dates between January and November 2011. The figure also displays the number of annual meetings held for each month (right above the trend line).

TABLE 1
 Say-When-On-Pay (SWOP): Frequency of management recommendations and voting outcome

	All	By Management Recommendation			
		Annual	Biennial	Triennial	None
N	1,365	841	32	452	40
%	100.0%	61.6%	2.3%	33.1%	2.9%
Mean <i>SWOP Votes for Annual</i>	75.5%	86.6%	58.3%	56.5%	71.5%
Mean <i>SWOP Votes for Biennial</i>	1.7%	0.9%	28.6%	1.4%	2.7%
Mean <i>SWOP Votes for Triennial</i>	21.3%	11.2%	11.3%	40.8%	21.9%
Number of firms with					
Highest voting support for annual	1,239	839	28	335	37
Highest voting support for biennial	4	-	4	-	-
Highest voting support for triennial	122	2	0	117	3

Table 1 presents the distribution of say-when-on-pay (SWOP) votes by management recommendation. *SWOP Votes for Annual (Biennial, Triennial)* is defined as number of votes cast in favor of annual (biennial, triennial) frequency of say on pay scaled by total number of votes cast (i.e. the sum of votes cast in favor of annual, biennial or triennial votes plus abstention votes) (source: ISS).

TABLE 2
Influence of management recommendations

Panel A: Determinants of votes on frequency of say on pay

	Model (1) Coefficient (<i>t</i> -statistic)	Model (2) Coefficient (<i>t</i> -statistic)	Model (3) Coefficient (<i>t</i> -statistic)
<i>Intercept</i>	0.366 *** (7.426)	0.201 *** (6.262)	0.201 *** (6.249)
<i>% Votes Controlled by Insiders</i>	0.574 *** (9.770)	0.404 *** (9.876)	0.406 *** (9.876)
<i>% Non-Institutional Block Ownership</i>	0.343 *** (2.738)	0.223 ** (2.505)	0.225 ** (2.503)
<i>% Inst. Own. in Favor of Annual</i>	-0.465 *** (-6.304)	-0.340 *** (-6.494)	-0.336 *** (-6.427)
<i>% Inst. Own. in Favor of Triennial</i>	0.485 *** (3.145)	0.417 *** (3.992)	0.427 *** (4.059)
<i>% Inst. Own. With No Stated Preference</i>	-0.256 *** (-6.846)	-0.196 *** (-7.964)	-0.195 *** (-7.891)
<i>ln(MV Equity)</i>	-0.003 (-0.754)	0.004 * (1.776)	0.004 * (1.697)
<i>Abnormal Returns</i>	0.018 (1.250)	0.006 (0.613)	0.006 (0.671)
<i>Return on Assets</i>	0.096 * (1.873)	-0.078 ** (-2.044)	-0.078 ** (-2.049)
<i>Mgmt SWOP Rec: Triennial</i>		0.259 *** (38.594)	
<i>Mgmt SWOP Rec: Triennial—Early Proxy Season</i>			0.297 *** (20.557)
<i>Mgmt SWOP Rec: Triennial—Late Proxy Season</i>			0.253 *** (36.193)
N	1,365	1,325	1,325
Adjusted R ²	0.352	0.744	0.744

Panel B: Determinants of shareholder votes on proposals to declassify the board

	Model (1) Coefficient (<i>t</i> -statistic)	Model (2) Coefficient (<i>t</i> -statistic)
<i>Intercept</i>	0.661 *** (15.257)	0.568 *** (13.528)
<i>% Votes Controlled by Insiders</i>	-0.426 *** (-2.792)	-0.351 *** (-2.652)
<i>% Non-Institutional Block Ownership</i>	-0.472 *** (-3.352)	-0.221 (-1.580)
<i>% Institutional Ownership</i>	0.226 *** (7.328)	0.207 *** (5.810)
<i>ln(MV Equity)</i>	0.005 (1.208)	0.002 (0.629)
<i>Abnormal Returns</i>	0.069 ** (2.460)	0.005 (0.356)
<i>Return on Assets</i>	-0.078 (-0.735)	-0.038 (-0.498)
<i>Mgmt Recommends For</i>		0.244 *** (26.926)
N	258	258
Adjusted R ²	0.128	0.776

Table 2, panel A, presents the results for the determinants of votes on the frequency of say on pay, or say-when-on-pay (SWOP) votes. The dependent variable, SWOP Votes for Triennial, is defined as number of SWOP votes cast in favor of triennial votes scaled by total number of votes cast, i.e. sum of votes cast in favor of annual, biennial or triennial votes plus abstention votes (source: ISS). % Votes Controlled by Insiders is equal to the fraction of shares owned by non-director executives and directors and corrected for cases with multiple share classes with different voting rights (source: ExecuComp, ISS Directors Dataset and hand collected data). % Non-Institutional Block Ownership is the percentage of equity owned by institutions not covered by Thomson Reuters' database of 13-F holdings with ownership greater than 5 percent (source: hand collected data). % Institutional Ownership in Favor of Annual (Triennial) is the percentage of equity owned by 13-F institutions that have expressed a preference for annual (triennial) SOP votes (source: Hauder 2011, Thomson Reuters and hand collected data). % Institutional Ownership With No Stated Preference is the percentage of equity owned by 13-F institutions that have expressed no preference for annual or triennial SOP votes (source: Hauder 2011, Thomson Reuters and hand collected data). ln(MV Equity) is the natural logarithm of the market value of equity calculated as the number of shares outstanding as of the end of the most recent fiscal year ending before the annual meeting (Compustat data item csho) times price at fiscal year close (Compustat data item prcc_f) (source: Compustat). Abnormal Returns are size-adjusted returns for the most recent fiscal year ending before the annual meeting (source: CRSP). Return on Assets is the firm's return on assets (ROA) for the most recent fiscal year ending before the annual meeting calculated as earnings before extraordinary items (Compustat data item ib) scaled by average total assets (Compustat item at) (source: Compustat). Mgmt SWOP Rec: Triennial is an indicator variable that is equal to one if the management recommends voting in favor of holding a triennial SOP vote (source: ISS). Mgmt SWOP Rec: Triennial—

Early Proxy Season (Mgmt SWOP Rec: Triennial—Late Proxy Season) is an indicator variable that is equal to one if the management recommends voting in favor of holding a triennial SOP vote and does so in the first three months (after the first three months) of the proxy season (source: ISS).

Table 2, panel B, presents the results for the determinants of votes on proposals to declassify the board submitted first by shareholders and then (in the subsequent year) by management (129 firms, 258 proposals, between 2002 and 2011, source: ISS) The dependent variable, % VotesFor, is defined as number of votes cast in favor of declassifying the board scaled by total number of votes cast (i.e. sum of votes cast in favor, against or abstain; source: ISS). % Votes Controlled by Insiders is equal to the fraction of shares owned by non-director executives and directors and corrected for cases with multiple share classes with different voting rights (source: ExecuComp, ISS Directors Dataset and hand collected data). % Non-Institutional Block Ownership is the percentage of equity owned by institutions not covered by Thomson Reuters' database of 13-F holdings with ownership greater than 5 percent (source: hand collected data). % Institutional Ownership is the percentage of equity owned by 13-F institutions (source: Thomson Reuters). $\ln(MV\ Equity)$ is the natural logarithm of the market value of equity calculated as the number of shares outstanding as of the end of the most recent fiscal year ending before the annual meeting (Compustat data item csho) times price at fiscal year close (Compustat data item prcc_f) (source: Compustat). Abnormal Returns are size-adjusted returns for the most recent fiscal year ending before the annual meeting (source: CRSP). Return on Assets is the firm's return on assets (ROA) for the most recent fiscal year ending before the annual meeting calculated as earnings before extraordinary items (Compustat data item ib) scaled by average total assets (Compustat item at) (source: Compustat). Mgmt Recommends For is an indicator variable that is equal to one if the management recommends in favor of declassifying the board (source: ISS).

***, **, and * denote significance at the 0.01, 0.05, and 0.10 level, respectively, based on a two-tailed test. Reported *t*-statistics are based on robust standard errors.

TABLE 3

Determinants of management influence on shareholder votes on frequency of say on pay

Panel A: The role of management credibility – subsample where management recommends triennial

	Model (1) Coefficient (<i>t</i> -statistic)	Model (2) Coefficient (<i>t</i> -statistic)	Model (3) Coefficient (<i>t</i> -statistic)	Model (4) Coefficient (<i>t</i> -statistic)	Model (5) Coefficient (<i>t</i> -statistic)	Model (6) Coefficient (<i>t</i> -statistic)
<i>Intercept</i>	0.419 *** (7.101)	0.421 *** (7.390)	0.442 *** (7.576)	0.421 *** (7.304)	0.423 *** (7.267)	0.448 *** (8.129)
<i>% Votes Controlled by Insiders</i>	0.633 *** (14.199)	0.622 *** (14.517)	0.625 *** (14.302)	0.606 *** (14.167)	0.624 *** (14.084)	0.580 *** (14.437)
<i>% Non-Institutional Block Ownership</i>	0.545 *** (6.250)	0.548 *** (6.494)	0.542 *** (6.176)	0.535 *** (6.115)	0.545 *** (6.379)	0.534 *** (6.402)
<i>% Inst. Own. in Favor of Annual</i>	-0.623 *** (-6.090)	-0.645 *** (-6.280)	-0.628 *** (-6.229)	-0.643 *** (-6.677)	-0.601 *** (-5.990)	-0.647 *** (-6.912)
<i>% Inst. Own. in Favor of Triennial</i>	0.368 (1.515)	0.368 (1.579)	0.351 (1.473)	0.435 * (1.806)	0.328 (1.354)	0.380 * (1.673)
<i>% Inst. Own. With No Stated Preference</i>	-0.166 *** (-3.779)	-0.156 *** (-3.613)	-0.169 *** (-3.937)	-0.172 *** (-4.033)	-0.163 *** (-3.744)	-0.162 *** (-3.988)
<i>ln(MV Equity)</i>	0.007 * (1.888)	0.007 ** (2.031)	0.006 (1.523)	0.006 * (1.798)	0.007 ** (2.057)	0.006 * (1.762)
<i>Abnormal Returns</i>	0.022 (1.249)	0.015 (0.855)	0.023 (1.296)	0.022 (1.283)	0.020 (1.159)	0.015 (0.862)
<i>Return on Assets</i>	-0.074 (-1.296)	-0.083 (-1.496)	-0.078 (-1.361)	-0.071 (-1.316)	-0.048 (-0.858)	-0.060 (-1.136)
<i>High Votes Against SOP</i>		-0.049 *** (-4.033)				-0.046 *** (-3.783)
<i>High Votes Withheld from Directors</i>			-0.022 ** (-2.330)			-0.020 ** (-2.131)
<i>High Votes Against Mgmt Proposals</i>				-0.084 *** (-3.079)		-0.082 *** (-3.140)
<i>Mgmt Issues Forecast</i>					-0.016 (-1.532)	-0.016 (-1.584)
<i>Mgmt Forecast Error</i>					-1.238 ** (-2.288)	-1.004 * (-1.833)
N	484	484	484	484	484	484
Adjusted R ²	0.699	0.707	0.702	0.706	0.704	0.721

Panel B: The role of management credibility – full sample

	Model (1) Coefficient (<i>t</i> -statistic)	Model (2) Coefficient (<i>t</i> -statistic)	Model (3) Coefficient (<i>t</i> -statistic)	Model (4) Coefficient (<i>t</i> -statistic)	Model (5) Coefficient (<i>t</i> -statistic)
<i>Mgmt SWOP Rec: Triennial</i>	0.270 *** (35.998)	0.269 *** (31.048)	0.495 *** (11.645)	0.265 *** (36.134)	0.511 *** (12.253)
<i>High Votes Against SOP</i>	-0.001 (-0.137)				-0.002 (-0.258)
<i>High Votes Against SOP x Mgmt SWOP Rec: Triennial</i>	-0.068 *** (-4.963)				-0.062 *** (-4.590)
<i>High Votes Withheld from Directors</i>		-0.002 (-0.364)			-0.003 (-0.527)
<i>High Votes Withheld from Directors x Mgmt SWOP Rec: Triennial</i>		-0.025 ** (-2.079)			-0.020 * (-1.697)
<i>High Votes Against Mgmt Proposals</i>			0.085 *** (2.622)		0.083 *** (2.624)
<i>High Votes Against Mgmt Proposals x Mgmt SWOP Rec: Triennial</i>			-0.243 *** (-5.751)		-0.235 *** (-5.782)
<i>Mgmt Forecast Error</i>				-0.041 (-0.091)	0.084 (0.178)
<i>Mgmt Forecast Error x Mgmt SWOP Rec: Triennial</i>				-2.263 *** (-3.078)	-2.108 *** (-2.802)
Controls	Included	Included	Included	Included	Included
N	1,325	1,325	1,325	1,325	1,325
Adjusted R ²	0.747	0.744	0.754	0.745	0.762

Table 3 presents the results for the determinants of SWOP votes. The dependent variable, *SWOP Votes for Triennial*, is defined as number of SWOP votes cast in favor of triennial votes scaled by total number of votes cast, i.e. sum of votes cast in favor of annual, biennial or triennial votes plus abstention votes (source: ISS).

All models include proxies for management credibility as well as standard determinants of shareholder votes (control variables). Management credibility variables are defined as follows: *High Votes Against SOP* is an indicator variable that is equal to one if SOP Voting Dissent at the concurrent meeting is greater than 20 percent (source: ISS). *High Votes Withheld from Directors* is an indicator equal to one if the maximum votes withheld from directors over the 2008-2010 annual meetings exceed 20 percent (source: ISS). *High Votes Against Mgmt Proposals* is an indicator equal to one if the maximum votes cast against management proposals over the 2008-2010 period is more than 20 percent (source: ISS). *Mgmt Issues Forecast* is an indicator variable that is equal to one if the firm issues at least one management forecast in 2010 and zero otherwise (source: First Call Company Issued Guidelines Database). *Mgmt Forecast Error* is the average absolute annual management forecast error over 2010. The forecast error is calculated as actual less forecast scaled by price at the end of the month preceding the estimate date (source: First Call Company Issued Guidelines Database).

Control variables are defined as follows: *% Votes Controlled by Insiders* is equal to the fraction of shares owned by non-director executives and directors and corrected for cases with multiple share classes with different voting rights (source: ExecuComp, ISS Directors Dataset and hand collected data). *% Non-Institutional Block Ownership* is the percentage of equity owned by institutions not covered by Thomson Reuters' database of 13-F holdings with ownership greater than 5 percent (source: hand collected data). *% Institutional Ownership in Favor of Annual (Triennial)* is the percentage of equity owned by 13-F institutions that have expressed a preference for annual (triennial) SOP votes (source: Hauder 2011, Thomson Reuters and hand collected data). *% Institutional Ownership With No Stated Preference* is the percentage of equity owned by 13-F institutions that have expressed no preference for annual or triennial SOP votes (source: Hauder 2011, Thomson Reuters and hand collected data). $\ln(MV Equity)$ is the natural logarithm of the market value of equity calculated as the number of shares outstanding as of the end of the most recent fiscal year ending before the annual meeting (Compustat data item *csho*) times price at fiscal year

close (Compustat data item *prcc_f*) (source: Compustat). *Abnormal Returns* are size-adjusted returns for the most recent fiscal year ending before the annual meeting (source: CRSP). *Return on Assets* is the firm's return on assets (ROA) for the most recent fiscal year ending before the annual meeting calculated as earnings before extraordinary items (Compustat data item *ib*) scaled by average total assets (Compustat item *at*) (source: Compustat).

Panel A reports the results for the sub-sample of firms recommending triennial, including all the variables above. Panel B report the results for the full sample, with interaction terms between the proxies for management credibility and *Mgmt SWOP Rec: Triennial*, an indicator variable equal to one if the management recommends voting in favor of holding a triennial SOP vote (source: ISS). In panel B only the management credibility variables and their interactions with the indicator variable are reported; all the other control variables in panel A are included but suppressed for ease of exposition. ***, **, and * denote significance at the 0.01, 0.05, and 0.10 level, respectively, based on a two-tailed test. Reported *t*-statistics are based on robust standard errors.

TABLE 4
Implementation of frequency of SOP votes

		Winning Frequency (most votes)			
		Annual	Biennial	Triennial	Total
Adoption Choice	Annual	1,221	0	10	1,231
	Biennial	0	4	0	4
	Triennial	2	0	109	111
Total		1,223	4	119	1,346

Table 4 provides information on the implementation of the frequency of SOP votes for S&P1500 companies that made a frequency recommendation in 2011 and for which implementation data could be collected (source: hand collected data).

TABLE 5
Compensation changes following a negative ISS recommendation in 2011: the effect of SOP frequency adoption

	Total	Triennial Adopters	Annual Adopters	Annual Adopters with Dissent<30%
<i>N</i>	273	70	203	72
<i>% SOP Voting Dissent 2011</i>	29.8%	16.0%	34.5%	20.3%
<i>Compensation Changes 2012 (% firms)</i>	53.8%	14.3%	67.5%	31.9%
... <i>% SOP Voting Dissent 2011</i>	38.4%	22.4%	39.6%	21.7%
... <i>% SOP Voting Dissent 2012</i>	19.6%	NA	19.6%	12.1%

Table 5 provides information on companies that received an Against recommendation by ISS for their compensation plan in 2011. *N* denotes the sample size. *% SOP Voting Dissent 2011 (2012)* is defined as the number of votes cast against SOP scaled by the total number of votes cast, i.e. the sum of votes for, votes against and votes abstained at the 2011 (2012) annual meeting (source: ISS). *Compensation Changes 2012 (% firms)* is the percentage of companies disclosing compensation changes in the 2012 proxy statement (source: hand collected data).

The first column includes all companies. The second (third) column includes the sub-sample of companies that adopted triennial (annual) SOP frequency. The fourth column includes the sub-sample of companies that adopted annual SOP frequency and had *% SOP Voting Dissent 2011* smaller than 30 percent.

TABLE 6
 Compensation changes following a negative ISS recommendation in 2011 – Multivariate Analysis

	Model (1) Coefficient (z-statistic)	Model (2) Coefficient (z-statistic)	Model (3) Coefficient (z-statistic)
<i>Intercept</i>	0.731 *** (4.841)	-2.707 *** (-5.283)	-5.650 *** (-4.570)
<i>Triennial Adopter</i>	-2.506 *** (-6.703)	-1.244 *** (-2.889)	-0.960 ** (-1.969)
<i>% SOP Voting Dissent 2011</i>		10.787 *** (6.763)	10.342 *** (5.701)
<i>% Votes Controlled by Insiders</i>			0.662 (0.586)
<i>% Institutional Ownership</i>			2.586 *** (2.684)
<i>ln(MV Equity)</i>			0.139 (1.303)
<i>Abnormal Returns</i>			-0.942 * (-1.674)
<i>Return on Assets</i>			1.418 (1.227)
N	269	269	269
Pseudo R ²	0.167	0.349	0.387

Table 6 presents the results for the determinants of compensation changes made by companies in response to the 2011 say on pay vote. The dependent variable, *Compensation Changes 2012* is an indicator variable equal to one if a company discloses compensation changes in the 2012 proxy statement (source: hand collected data). *Triennial Adopter* is an indicator variable equal to one if a company adopted a triennial SOP frequency. *% SOP Voting Dissent 2011* is defined as the number of votes cast against the SOP proposal scaled by the total number of votes cast, i.e. the sum of votes for, votes against and votes abstained at the 2011 annual meeting (source: ISS). *% Votes Controlled by Insiders* is equal to the fraction of shares owned by non-director executives and directors and corrected for cases with multiple share classes with different voting rights (source: ExecuComp, ISS Directors Dataset and hand collected data). *% Institutional Ownership* is the percentage of equity owned by 13-F institutions (source: Thomson Reuters). *ln(MV Equity)* is the natural logarithm of the market value of equity calculated as the number of shares outstanding as of the end of the most recent fiscal year ending before the annual meeting (Compustat data item *csno*) times price at fiscal year close (Compustat data item *prcc_f*) (source: Compustat). *Abnormal Returns* are size-adjusted returns for the most recent fiscal year ending before the annual meeting (source: CRSP). *Return on Assets* is the firm's return on assets (ROA) for the most recent fiscal year ending before the annual meeting calculated as earnings before extraordinary items (Compustat data item *ib*) scaled by average total assets (Compustat item *at*) (source: Compustat). ***, **, and * denote significance

at the 0.01, 0.05, and 0.10 level, respectively, based on a two-tailed test. Reported z -statistics are based on robust standard errors.