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Do Institutional Investors Monitor their Large vs. Small Investments Differently? Evidence from the Say-On-Pay Vote

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Abstract

Widely-cited theoretical models predict that large shareholders will monitor management, while small shareholders will free-ride. However, we find that institutional investors are particularly likely to oppose management on Say-On-Pay for their small-scale shareholdings; the presence of a large blockholder further catalyzes their opposition. We also find that the scale of investment at the institutional level predicts voting patterns better than the scale of investment at the fund level. Overall, our findings demonstrate that, when a low-cost monitoring opportunity is available, small positions that aggregate to a large level of ownership across institutions can play a meaningful role in corporate governance.

Keywords: shareholder's votes, say-on-pay, financial institutions, small shareholders

JEL Classifications: G30

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1. Introduction

What role, if any, do small institutional shareholders play in corporate governance? It is commonly assumed that large institutional shareholders are the key drivers of governance matters, as they are better positioned to internalize the benefits of the actions that they undertake.[1] However, small institutional shareholders, in aggregate, own large positions in most public firms.[2] If these shareholders can take actions that are relatively low cost, they may, as a group, play an important role in corporate governance. In this paper, we examine small shareholder participation in a low-cost monitoring opportunity, namely, the "Say-On-Pay" (SOP) vote on corporate executive pay.

The mandatory SOP vote, introduced in 2011, allows shareholders of U.S.-listed companies to approve or disapprove of the compensation awarded to the firm's executive officers over the past fiscal year. This is the only vote that occurs routinely, and that offers shareholders a direct opportunity to provide feedback focused on the quality of a firm's (named) executives. Prior evidence suggests that SOP is value-enhancing (Ferri and Maber, 2013; Iliev and Vitanova, 2018; Cuñat, Gine, and Guadalupe, 2016), and that it can have a meaningful impact on limiting compensation levels (Ertimur, Ferri, and Muslu, 2010; Ertimur, Ferri, and Oesch, 2013; Correa and Lel, 2016; Denis, Jochem, and Rajamani, 2017). Moreover, practitioners have suggested that the SOP vote provides a mechanism for shareholders to communicate their general level of satisfaction with managerial performance to management.[3] However, the shareholder structure mechanism determining the SOP vote outcome remains, to date, unexplored by academic research.

To explore this mechanism, we examine how the scale of an institutional investor's holding in a company is related to its SOP vote. One possibility is that institutions will typically vote in support of management for their small-scale investments. This outcome is consistent with Berle and Means (1932), who argue that small shareholders have little incentive to monitor the firms they hold, and may therefore opt to vote passively (i.e., consistent with management's recommendation). Today, institutions are required to vote on proxy issues put before them for their shareholdings.[4] Still, it may not be worthwhile for institutions to spend time or resources to acquire the information needed to make an informed decision on how to vote for small-scale investments. It is also likely to be too costly for funds to publicly confront management (i.e., outside of the voting process) with respect to a small-

[1] E.g., Grossman and Hart (1980), Shleifer and Vishny (1986), and Hart (1995).
[2] For example, in our sample, the aggregate fraction of outstanding shares held by institutional investors (mutual funds) that each hold less than 0.5% of the outstanding shares equals, for the average firm, 11.7% (8.9%).
[3] See Bew and Fields (2012), Burr (2012), Chasan (2012), and Spencer Stuart (2014).
[4] See the Advisors Act Rule 206(4)-6.

scale investment. Accordingly, funds may opt to vote in support of management (or to follow the recommendation of Institutional Shareholder Services, a leading consulting firm for institutional investors on stock governance issues) as a default position for their small-scale investments in order to passively cooperate with management, who solicit votes from shareholders in favor of their recommendations, unless firm performance is weak (more on this below).

Conversely, there are reasons why institutional investors may *oppose* management on the SOP vote for their small-scale investments. First, the large shareholdings of an institution are more influential in their managed portfolio returns. Thus, institutions will likely focus their active and costly monitoring efforts on these large holdings.[5] In the case of impending SOP votes, institutions are likely to have private discussions with the management teams of their large-scale holdings, and, given the institutions' large stakes in those companies, they are likely to have direct access to management. Indeed, Spencer Stuart (2014) reports that the most frequent issue for which management proactively reaches out to their large shareholders is an upcoming SOP vote. As McCahery, Sautner, and Starks (2016) point out, large shareholders' monitoring may occur discretely through "behind the scenes intervention." Given the limited monitoring resources available to institutional investors, and given that they are required to vote, institutions may be more likely to use SOP, which is a relatively low-cost monitoring opportunity, to voice displeasure regarding their small-scale investments.

The second reason why institutions may be more likely to vote against management on the SOP vote for their small-scale investments is that a negative SOP vote outcome may convey negative information to the market, resulting in a lower stock price, at least in the short run.[6] Accordingly, investors may be particularly averse to voting against management for a large-scale investment, which would have a relatively large effect on the short-term performance of their portfolios.

Our empirical strategy is as follows. Given that institutions are only required to publicly report votes for their mutual funds, we proxy for an institution's overall SOP support rate using the weighted average of the votes cast by all mutual funds advised by that institution (weighted by the magnitude of each fund's investment across all funds advised by the institution). Then, we estimate models

[5] Institutional investors face a barrage of decisions on their numerous portfolio holdings during proxy season. From our discussions with Institutional Shareholder Services and with some institutional investors, we have learned that the vast majority of attention during proxy season is paid to institutions' largest shareholdings.

[6] This negative news affects market prices; large shareholders may rationally want to delay any negative price impact for their own benefit (e.g., attracting fund flows, which are highly dependent on short-run recent performance, e.g., Sirri and Tufano, 1998), to convince management to make changes to preclude negative outcomes, or to extract private value from management. Accordingly, for large-scale investments, investors may be particularly averse to speeding up this negative information revelation.

explaining this support rate as a function of (a) the fraction of an institution's portfolio invested in a given company's equity, and (b) the fraction of the total market capitalization of a company held by the institution. We find, using either ownership metric, that institutional investors are more likely to oppose management on the SOP vote for their small-scale investments relative to their large-scale investments.

Smaller portfolio weights and a smaller fraction of company held, measured at the institutional level, predict greater opposition to management on the SOP vote. A one-standard-deviation decrease in the fraction of a company's shares held by an institution is expected to increase the propensity to oppose management on the SOP vote by 11.8% relative to its mean. We observe a similar pattern when institutions vote on other proposals, but the relation is particularly significant and consistent for SOP votes. Moreover, we demonstrate that institutions are particularly likely to oppose management on the SOP vote for their small-scale investments when firm performance is weak; this demonstrates that institution's SOP votes on their small-scale investments are not random, rather, they oppose management of firms that are indeed underperforming. Taken together, these findings suggests that the SOP vote (i.e., voting against management) is a governance mechanism which is particularly likely to be used explicitly by small-scale shareholders.

To help understand some of the aforementioned differing motivations of small versus large shareholders with respect to SOP votes, we consider the market reaction to SOP vote outcomes. We find that the announcements of low support rates are indeed followed by negative cumulative abnormal returns (CARs). For example, during a nine-day event window around the vote (-4,+4), the average abnormal return across companies that receive SOP support rates below 70% is approximately 0.79% lower than that of companies receiving support rates equal to or exceeding 70%. Hence, the tendency of financial institutions to vote in support of management on SOP may be motivated by their desire to avoid such negative returns.

We next examine whether shareholder composition is related to institutions' votes. Pagano and Röell (1998) introduce the idea that smaller shareholders may monitor a larger blockholder who, in turn, monitors management. In our context, their model suggests that a small shareholder will be more likely to oppose management on the SOP vote when a large blockholder is present. In our view, the Pagano and Röell (1998) model has two possible interpretations in the context of our study. First, it suggests that small shareholders may oppose management on the SOP vote to protest against management allowing a large blockholder to extract private benefits (the model assumes private benefits are extracted by a large shareholder). Second, small shareholders may vote against

management in an attempt to weaken management, thereby decreasing monitoring costs and making it more likely that large blockholders monitor management (i.e., following the vote, large blockholders' monitoring costs fall below their benefits).

Indeed, we observe that an institutional investor is more likely to oppose management on the SOP vote when it holds a small stake in a company and a large blockholder is also present in the firm's shareholder structure. We view this empirical evidence as supportive of Pagano and Röell (1998), who argue that shareholders monitor not only management, but also each other. Further supporting this conclussion, we find that institutions (which typically hold small stakes in firms), are significantly and consistently likely to vote against SOP when block ownership is large; in contrast, across all SOP voters (on the firm level), management is likely to obtain greater support rates when a larger fraction of shares is held by 5%-or-greater blockholders. These contrasting patterns suggest that funds holding small stakes are particularly likely to oppose management on SOP when a large blockholder is present, while large blockholders typically vote in support of SOP.

We conjecture that any relation between SOP voting and position size will be particularly evident when positions are measured at the institutional advisor level, rather than at the mutual fund level. Our reasoning is that decisions on voting are a costly and time-consuming process, sometimes accompanied by direct discussions with management. These costs are likely magnified by the short time frame of the busy proxy season, in which investors are voting on a large number of issues at many different firms. In addition, an institutional advisor with a large aggregate position in a firm (through many smaller positions at funds it oversees) will possess more power to influence management through direct communications. With respect to both the portfolio weight and fraction of a company held, our empirical evidence suggests that these voting decisions are typically determined at the aggregated institutional level, as opposed to the individual fund level.

To explore the robustness of our findings to different sampling choices, we demonstrate that our findings hold in various subsamples: (1) whether Institutional Shareholder Services (ISS) recommends a vote for or against SOP, (2) whether the firm's market capitalization is above or below $10 billion, and (3) whether the fund is an index fund or not. The general patterns we detect regarding position size and voting hold in all of these subsamples, although some differences across subsamples are evident. We point out that our findings for SOP differ from those of Iliev and Lowry (2015), who examine the pre-SOP period. To explain, Iliev and Lowry (2015) find that, when ISS recommends a vote in support of management (which is the case for the majority of the proposals), funds are either likely to vote in support of management for their small-scale investments, or cast votes that are not

significantly related to the magnitude of their holdings. In contrast, we find that, even when ISS recommends a vote in support of management on SOP, funds are nevertheless more likely to *oppose* management for their small-scale investments, relative to their larger-scale investments, indicating that institutions are likely to oppose management on the SOP vote for their small-scale investments, across the board. Hence, the robust and consistent pattern we document is unique for SOP.

We recognize that the magnitude of a fund's or an institution's investment may well be endogenously chosen, meaning that funds and institutions will choose to invest more in a company that they are particularly enthusiastic about, and invest less in a company they find less attractive. Accordingly, it is possible that the higher support rates we detect for larger positions simply reflect the general enthusiasm of the investor for both the firm and its management. However, if an institution does not particularly value a certain stock, it could simply sell the stock (as Admati and Pfleiderer, 2009, and Edmans, 2009, argue) prior to the SOP vote, avoiding the need to vote entirely. Our findings demonstrate that, when institutions hold small-scale investments, they are motivated enough about the investment to actively attempt to govern management via the SOP vote.

Nevertheless, to further test our conclusions, and to address the possibility of endogenous investment magnitudes, we conduct an instrumental variable analysis that addresses the above-noted endogeneity concern. Our analysis is driven by an ownership discontinuity that applies to index funds around the Russell 1000-2000 cutoff; this discontinuity is also reflected in the portfolios of the advising institutions. Because index funds do not have discretion over their investment allocations, these allocations provide a laboratory for examining the relation between the magnitude of an institution's/index fund's holding and the SOP votes it casts when the magnitude of the investment is exogenously determined. We instrument for the fraction of a company's shares held both by institutions and by index funds using the Russell discontinuity method (see Crane et al., 2016; Boone and White, 2016; and Appel, et al., 2018). These analyses confirm the patterns described above—institutions and index funds are more likely to oppose management on the SOP vote when they hold a smaller stake.

We believe that our study makes several contributions. First, we provide evidence indicating that, on the stock level, in companies with a dispersed shareholder structure, SOP vote outcomes are more likely to be unsupportive of management, because small-scale investors are more likely to oppose management on the SOP vote. Thus, small investors can play a meaningful role in corporate governance when the costs of doing so are relatively low. Our evidence suggests that when a low-cost monitoring opportunity is made available, small institutional positions that aggregate to a large level

of ownership can play a meaningful role in corporate governance.

We also contribute by showing that voting decisions are potentially conditioned on the presence of *other* shareholders in a firm. In particular, blockholder presence is associated with a general tendency for institutions with small-scale investments to more heavily oppose management on the SOP vote. More generally, our findings suggest that size-diversity among shareholders, which may reflect varying shareholder interests, tends to stir opposition by small shareholders.

Finally, we are able to show that the relation between the magnitude of an investment and the vote cast is particularly salient when the magnitude is measured at the institutional level as opposed to the fund level. To the best of our knowledge, we are the first to study the relation between the magnitude of an investment at the institutional level and the votes cast by an institutional advisor. We show that the magnitude of an investment at the institutional level plays an important role in voting behavior, above and beyond other owner characteristics that have been emphasized in the prior literature.[7] Iliev and Lowry (2015) provide important evidence on how portfolio characteristics, including the magnitude of an investment at the fund level, relate to the votes cast by funds on votes other than SOP. We build on their findings by identifying institutional-level holding variables as a key determinant of voting behavior with respect to SOP.[8]

2. Background, Data and Descriptive Statistics

2.1. Background

The main focus of this study is the "small-scale institutional shareholder", which includes the relatively small-scale shareholdings of a given 13f institutional investor (i.e., an institutional investor required to file a 13f filing). We first point out that the majority of the investments made by all institutions (or mutual funds) are small: In our sample, 88% (94%) of all investments comprise less than 0.5% of a company's outstanding shares. Moreover, small positions aggregate to meaningful positions: the average aggregate fraction of outstanding shares held by 13f institutions (mutual funds) that each hold less than 1% is equal to 18.04% (14.3%); the average aggregate fraction of outstanding shares held by 13f institutions (mutual funds) that each hold less than 0.5% is equal to 11.7% (8.9%).

[7] See, for example, Davis, and Kim (2007), Matvos and Ostrovsky (2010), Morgan, Poulsen, Wolf, and Yang (2011), Iliev and Lowry (2015), Aggarwal, Erel, and Starks (2015), Ertimur, Ferri, and Oesch (2016), Appel, Gormley, and Keim (2016) and Dimmock, Gerken, Ivkovic, and Weisbenner (2018).

[8] Our analysis also includes an institution (or alternatively, fund) fixed effect, which importantly controls for the tendency of an institution (fund) to vote with or against management, as a policy at the institutional adviser (fund) level. Indeed, we will show evidence that certain institutions tend to vote with or against management persistently across companies and time.

Accordingly, we consider the votes of small institutional shareholders to be, in aggregate, meaningful.

We focus on the shareholder votes (of small-scale institutional holdings) for the mandatory non-binding SOP vote, which took effect starting January 21, 2011, and which offers shareholders an unprecedented, relatively low-cost opportunity to provide feedback to management on a regular basis. In the 2011-2013 period we examine, the vote was required for companies with a public equity free float value exceeding $75 million.[9]

Other than SOP, the only issues that are raised routinely at shareholder meetings are the election of the directors proposed by management and the ratification of the company's auditors. SOP is unique in that it offers shareholders an opportunity to provide feedback directed to management.[10] While SOP is formally a vote on the compensation awarded to the CEO and the other four named executives, it also reflects shareholder perceptions of management performance (Bew and Fields, 2012; Burr, 2012; Chasan, 2012; Spencer Stuart, 2014; and particularly Fisch, Palia, and Salomon, 2017).[11] We believe that, for this reason, SOP has been credited for increasing the dialogue between shareholders and management (Larcker, McCall, Ormazabal, and Tayan, 2012).[12]

Berle and Means (1932) argue that small shareholders have little incentive to monitor the firms they hold. They further argue that small shareholders do not have incentives to expend effort on determining how to vote. In a similar spirit, prior studies have assumed that large shareholders will actively monitor firms, while small shareholders will free-ride (Grossman and Hart, 1980; Shleifer and Vishny, 1986; and Hart, 1995). Taken together, these studies suggest that mutual funds will typically vote in *support* of management for their small-scale investments, since it is not worthwhile for funds to spend the time or resources necessary to acquire the information needed to make an informed decision on how to vote for these investments. Alternatively, they may opt to follow ISS

[9] In 2011, each company held a frequency SOP vote, in which shareholders determined whether they wished to hold the SOP vote every one, two, or three years. Kronlund and Sandy (2016) find that 89.7% of the companies voted in favor of an annual SOP vote.

[10] We note that, for every proposal brought up for a vote at a shareholder meeting, management issues a recommendation on whether to vote for or against the proposal. For all SOP proposals, unsurprisingly, management issues a recommendation in favor. Hence, there exists no variation in this variable, and accordingly, it is not addressed in this study.

[11] In our discussions with Institutional Shareholder Services (ISS), a leading proxy advisory company, their researchers explained that a SOP vote that passes by margins as high as 70% are still viewed quite unfavorably by a typical company's board of directors.

[12] While the SEC may have understood this effect of SOP on small-shareholder governance while preparing the SOP rule, we could find no clear reference to such a motivation in the SEC's final rule. In general, the final rule refers to the Dodd Frank Act (DFA) as the motivation for implementing the rule. In turn, DFA does not clearly spell out the need to control excessive executive compensation as a structure that may have the consequence of improving the voice of small shareholders. Nevertheless, our results support the notion that the SOP rule has had exactly this effect. The final rule is available –at: https://www.sec.gov/rules/final/2011/33-9178.pdf.

recommendations for their small-scale investments.

However, one may posit that, given the requirement that mutual funds cast SOP votes and the fact that mutual funds have limited access to management, funds may take advantage of this low-cost monitoring opportunity to *oppose* management for their small-scale investments. Large shareholders have alternative governance opportunities, such as the ability to have their voices heard by management via "behind-the-scenes intervention" (McCahery, Sautner, and Starks, 2016; Ng and Troianovski, 2015).[13] Small shareholders typically do not have direct access to management. Consequently, they are not likely to engage in costly actions such as proxy fights. Hence, small-scale shareholders may take advantage of the SOP to voice displeasure with respect to their investment. In addition, mutual funds may be willing to absorb a short-term negative abnormal return which may follow a SOP vote with low support rates for a small-scale investment, but not for a large-scale investment, which has a larger effect on the overall performance of their portfolio.

2.2. Data

Starting on January 21, 2011, the SOP vote became mandatory for all companies listed in the United States with a public free float exceeding $75 million. Approximately 2,200 companies fall under this definition in the average year. Since we wish to avoid a selection bias (e.g., examining only the S&P 1500 companies) we collect data for the 2011-2013 period from data sources that cover the entire universe of the companies that were required to hold a SOP vote.

Data on company performance is obtained from CRSP and Compustat. Data on executives and their compensation is obtained from Institutional Shareholder Services (ISS). Data on mutual fund holdings is obtained from the CRSP mutual fund database and from the Thomson s-12 mutual fund holding files. Data on institutional shareholdings at the advisor level (13f) is obtained from the Thomson s-34 files. In Appendix A, we describe the multiple procedures we follow to match the Thomson s-12, Thomson s-34, and CRSP mutual fund databases to the ISS voting analytics dataset. Data on shareholder composition, including blockholders, is obtained from GMI ratings. Data on peer companies selected to determine executive compensation is obtained from Institutional Shareholder Services (ISS). These data are extracted by ISS from the DEF 14-A filings.[14]

[13] McCahery, Sautner, and Starks (2016), who survey large investors—those "most likely to have the resources for and interest in pursuing shareholder engagement"—highlight that such shareholders engage in continuous dialogue and monitoring of management.

[14] We met with ISS in person several times in order to better understand the SOP voting data. In addition, ISS helped us formulate expectations about how institutional investors vote on SOP.

Voting outcomes are obtained from the ISS Voting Analytics database. This dataset documents the aggregate vote outcomes for each proposal that came up for a vote at a shareholder meeting. These outcomes are generally reported in an 8-K filing, and occasionally in a 10-Q or 10-K filing. In addition, the ISS Voting Analytics database includes data on the votes cast by mutual funds, which are sourced from the N-PX form that mutual funds submit annually to the SEC. For each issue discussed at a shareholder meeting, the ISS dataset also includes management's recommendation on how shareholders should vote. With respect to the SOP votes examined in this paper, the ISS voting analytics database includes the votes cast by 8,307 mutual funds operated by the 357 largest investment advisors.

2.3. Descriptive Statistics

We start by highlighting the large impact institutions and mutual funds have on vote outcomes by estimating the percentage of voted shares cast by institutions and funds. We first estimate this percentage for institutions using data reported in ProxyPulse (2014), published by Broadridge, the only company through which shareholders can submit their votes electronically (which is how the vast majority of shareholders vote). ProxyPulse (2014) reports that, for S&P 1500 companies, 90% of all institutional shareholdings are voted, while only 29% of all retail shareholdings are voted. We estimate that, on average, 69.63% of the outstanding shares of the average stock are held by institutions,[15] while the remaining shares are held by retail investors. Hence, 87.7% (69.63%*0.9)/((69.63%*0.9)+(1-69.63%)*0.29) of all votes cast are cast by institutions. This figure emphasizes that vote outcomes on the company level are typically determined by the votes cast by its institutional investors.

In addition, we estimate that on average, in a given corporation-year, mutual funds own 28.5% of the outstanding shares of the companies that hold a SOP vote during the 2011-2013 period (reported in Table 1). Using the abovementioned figures, on average, 35.7% of all voted shares are voted by mutual funds. These figures highlight that mutual funds, as a subset of institutional investors, also have a large impact on the aggregate vote outcome.

Table 2, Panel A, documents that, in general, SOP support rates are high: among shareholders who vote, on average, 87.2% vote in favor of SOP ("fraction voted for SOP"), as opposed to voting against SOP (or, in a small percentage of cases, withholding or abstaining from the vote). This low

[15] This figure is calculated by dividing the aggregate number of shares held by all institutions in a given stock and a given year (in the quarter preceding the vote), by the total number of shares outstanding, and then calculating the average across all stock-years.

frequency of opposition serves to "single out" companies for which shareholders express such opposition. Variables are further defined in the Glossary of Variables.

Table 3 focuses on the votes cast at the institutional advisor level. Column 3 reports, for the 20 institutions that have participated in the largest number of SOP votes, the frequency at which they voted in the opposite direction of ISS's recommendation. Note that some investment advisors never vote against ISS's recommendation, while other investment advisors do so quite frequently. Thus, institutions, to a large degree, appear to have a "house policy" on whether to fully trust ISS's opinion or to form their own opinion about the quality of management at a particular firm.

In the final column of Table 3, we focus on the delegation of the SOP voting decision within the institution (e.g., BlackRock), meaning whether this decision is made by the institution or by the fund advised by the institution (e.g., BlackRock Large Cap Core Fund). Bew and Fields (2012, p. 22) report that some institutions determine, at the institutional level, how their funds should vote, while other institutions delegate this decision to their fund managers. Indeed, Column 4 of Table 3 indicates that, within some institutions, funds vote unanimously (e.g., Vanguard with a 0 "S.D. of votes within institution"), while others do not (e.g., Jackson National Management with a 20.38% S.D.).

The median standard deviation, which is equal to 0.07%, indicates that the median institution typically votes unanimously, but the average institution delegates some amount of discretion on the voting decision to individual funds, as indicated by the average standard deviation equal to 3.05%. Following this pattern of variation, we examine how the magnitudes of both institutions' and funds' holdings relate to the votes cast.

3. Are Institutional Shareholders More Likely to Support Management for their Large-Scale Investments?

We start our analysis by examining how the magnitude of an institutional advisor's stock holdings relates to that institutional advisor's votes. We first focus on the institutional advisor level because, as shown in Section 2.3, a substantial fraction of the funds advised by a given institution vote consistently with each other, suggesting that the voting decision is frequently made at the institutional advisor level. In addition, 13f institutions, which are required by the Advisors Act Rule 206(4)-6 to "adopt and implement written policies and procedures that are reasonably designed to ensure that you vote client securities in the best interest of clients," establish these requirements at the institutional advisor level. While funds may and do diverge from the institution's policies on a regular or an occasional basis, the existence of institutional policies suggests that voting is frequently determined at

the advisor level.[16]

We first examine how the magnitude of each stock investment at the institutional level relates to the SOP vote cast. To carry out this analysis, we define the following two "holding variables" to capture the magnitude of each holding. First, "Institution's portfolio weight (as a fraction)" measures a stock's weight in the institution's total portfolio (i.e., the aggregate holdings of all mutual funds advised by that institution), following Fich, Harford, and Tran (2015). As shown in Table 2, Panel A, the median value of this variable is 0.29%. Second, "Fraction of company's shares held by institution" is the aggregate fraction of a company held by the mutual funds advised by each institution; the median value of this variable is equal to 0.025%.

Since institutions are required to publicly report only the votes they cast for the mutual funds they manage (rather than for all the assets they manage), we construct a proxy for how an institution voted for all its stock holdings based on the votes cast by the institution's mutual funds. As shown in Table 1, 41% (28.5%/69.6%) of the average institution's equity assets are managed by mutual funds. Our measure captures the weighted average of the fraction of funds that voted for SOP among all funds managed by a given institutional advisor. More formally, for each institution-company-year we estimate:

$$\text{Weighted average of institution's SOP support} = \sum_{i=1}^{n} W_i * V_i \qquad (1)$$

where W_i denotes the weight of fund i's holding of a stock relative to the aggregate holdings of all mutual funds advised by the institution (i.e., fraction of company held by fund i, divided by the total fraction of company held by all funds advised by the same advisor, both measured at the end of the calendar quarter preceding the vote), and V_i is a binary variable that equals one if fund i voted for SOP, and zero otherwise. We later discuss a second measure that we use for robustness.

Each observation included in Table 4 (Panel A) is at the institution-company-year level. Year, industry, and institution fixed effects are included (or not) as indicated at the bottom of Table 4 (Panel A), and errors are clustered at the institutional level. Including an institution fixed effect allows us to observe how a given institution votes differently for its small-scale investments versus its large-scale ones, as such a fixed effect controls for the unobserved tendency of a given institution to vote in a particular manner across stocks and over time (as implied from Table 3). Our decision to include an institution (and later fund) fixed effect differs from that of Iliev and Lowry (2015), who do not include

[16] For example, BlackRock's and Vanguard's policies are published at https://www.blackrock.com/corporate/en-us/literature/fact-sheet/blk-responsible-investment-guidelines-us.pdf and https://about.vanguard.com/vanguard-proxy-voting/voting-guidelines, respectively.

fund or institution fixed effects in their empirical specifications, as they are primarily interested in examining the types of funds that follow ISS recommendations. In contrast to their paper, our primary focus is understanding what factors motivate a *particular* institution or fund to oppose management (e.g., a single institution's relatively small- versus large-scale investments). Our findings demonstrate that including an institution fixed effect alters some of our main findings.[17]

We first point out some control variables included in Table 4 (Panel A) that are significantly related to the SOP vote: As expected, the larger the compensation awarded to the CEO ("Total compensation of CEO t-1 (in $Millions)"), the more likely institutions are to vote against SOP, i.e., against the compensation awarded to the named executives during that same previous year.[18] In addition, companies with strong prior-year stock price performance (i.e., large "Firm abnormal return") are likely to receive high SOP support rates from institutions. This finding implies that SOP voting is related to management performance, and not simply to the level of executive compensation (Iliev and Vitanova, 2018; Cuñat, Gine, and Guadalupe, 2016; Correa and Lel, 2016; Fisch, Palia, and Salomon, 2017). In addition, an ISS recommendation to vote against SOP dramatically increases the likelihood that shareholders will do so (consistent with Larcker, McCall, and Ormazabal, 2012; Ertimur, Ferri, and Oesch, 2013; Thomas, Palmiter, and Cotter, 2012; and, particularly, Malenko and Shen, 2016).

We next focus on our primary variables of interest in Table 4 (Panel A)–those measuring the magnitude of an institutional advisor's holding of a particular stock. Our findings document that, the larger the magnitude of the holding, the more likely the institution's funds are to support management on the SOP vote. Specifically, model 1 of Table 4 (Panel A) estimates that a decrease of one standard deviation in "Institution's portfolio weight" (0.0059, see Table 2, Panel A) is expected to decrease the institution's SOP support rate by 0.52% [0.0059*.8845]. Since the mean institutional opposition rate to SOP is only 12.81% (1 - 0.8719, where 0.8719 is the mean institutional SOP support rate), this is equivalent to a 4.05% (0.52%/12.81%) increase in the propensity to oppose management on SOP.

Similarly, model 1 of Table 4 (Panel A) estimates that a one-S.D. decrease in "Fraction of company's shares held by institution" is expected to increase the propensity to oppose management on SOP by 11.8% ((0.0231*0.6422)/ (1-0.8719)) relative to its mean. Taken together, these results point out that, the smaller a holding at the institutional level, the more likely the institution is to vote

[17] See the differences in the results for models 1 and 2 in Table 4 (Panel A).

[18] In unreported specifications, we replace the variables controlling for CEO compensation with variables controlling for the compensation awarded to the five named executives, and the results are very similar.

against SOP, and the magnitude of this effect is economically significant.

Model 2 replicates model 1, but does not include an institution fixed effect. In this regression, "Institution's portfolio weight" is no longer significant, while "Fraction of company's shares held by institution" remains significant, though with a smaller coefficient. These findings emphasize that an institution's SOP votes are determined at the institutional level, given the magnitude of an investment relative to the other investments in the institution's portfolio. Hence, the relation between the importance of a stockholding for an institution and the tendency to vote with management on SOP is much more evident when we examine within-institution variation, as opposed to pooled cross-sectional and time-series variation.

We next examine whether shareholder composition is related to an institution's vote. Pagano and Röell (1998) introduce the idea that a large controlling blockholder may be monitored by smaller shareholders who may limit the private benefits that the controlling blockholder is able to extract. In their model, the controlling blockholder is the primary monitor of management. While the controlling blockholder envisioned by Pagano and Röell (1998) is a founding shareholder, the Pagano and Röell (1998) model is relevant to our analysis because it highlights that smaller shareholders may monitor a larger blockholder (either an institution or a different type of bolcokholder) who extracts private benefits. To demonstrate how a large institutional blockholder may potentially extract private benefits in our context, consider the following hypothetical example: an institution with a large stake (and hence a large impact on the vote outcome) votes in support of SOP; in return, the company provides the large shareholder with private information assisting his trading decisions, or perhaps includes the institution's funds in its pension menu. Given that large blockholders are more likely to extract private benefits relative to small shareholders, small shareholders may oppose this situation by voting against management on the SOP vote when a large blockholder is present.

A second interpretation of the Pagano and Röell model would posit that, initially, the large blockholder does not monitor management because the costs of monitoring management do not outweigh the benefits. When the small shareholders publicly vote against management, management becomes more vulnerable, and monitoring costs decrease, which may now make it worthwhile for the large blockholder to monitor management. The common ground for both of these interpretations is that, in the presence of a blockholder, the SOP vote provides an opportunity for small shareholders to voice their discontent against management.

We first point out that the results demonstrate that shareholder composition relates to the votes institutions cast. We find that the larger the "Fraction of shares held by blockholders" (i.e.

investors who each hold at least 5% of the outstanding shares), the more likely institutions are to oppose management on SOP. For example, model 1 suggests that a one-S.D. increase in "Fraction of shares held by blockholders" is expected to increase an institution's SOP opposition rate by 3.29% ((0.1669*-0.0201)/(1-0.8981)). Hence, the presence of a large shareholder seems to stir dissent from institutions, which are typically small shareholders: the median institution in our sample holds only 0.29% of a company.

We further investigate whether the presence of a large shareholder catalyzes small-scale institutional investors in particular to vote against SOP. To do this, we define the dummy variable "Top third blockholders, bottom third portfolio weight" in model 3. This variable equals one if (i) the weight of the firm in the institution's portfolio is within the bottom third of the portfolio weights within the sample, indicating that the institution's holding is relatively small, and (ii) "Fraction of shares held by blockholders" is within the top third of the sample, indicating that a relatively large portion of the company's shares is held by blockholders. Indeed, we find that the combination of these two factors significantly increases the likelihood that institutions oppose management, and it is, overall, 7.02% larger (-(-0.0043-0.0059+0.0012)/(1-0.8719)), relative to the opposition mean of institutions. We find a similar pattern when we use somewhat different cutoffs to define institutions' small positions and blockholders' large positions.

This finding further implies that, from a small-scale institutional investor's perspective, the presence of a large blockholder increases the likelihood of choosing to protest management via the SOP vote.[19] Hence, while our findings demonstrate that large blockholders are generally inclined to vote with management (consistent with their ability to negotiate privately with management), their presence catalyzes the opposition of small shareholders. As noted above, our interpretation for these findings is that the small shareholders may either be opposing the private benefits that the large blockholder is extracting, or voting against management in an attempt to encourage the large blockholder to monitor management.

Large institutions may have the resources required to actively and directly monitor their large investments. Therefore, they may be particularly likely to vote differently for their small-scale versus large-scale investments. Accordingly, in model 4 we include only the largest institutions, defined as those within the top tercile of assets under management each year. We find that a one-S.D. increase

[19] In untabluated specifications, we have also used models that include an interaction variable between level of block ownership and portfolio weight. These models, while statistically significant and qualitatively consistent with the results for model 3, are economically weaker, suggesting that the interaction between blockholders and portfolio weights is nonlinear (i.e., is especially impactful when a large presence of blockholders exists in a firm's capital structure).

in "Institution's portfolio weight" is expected to decrease the propensity to oppose management on SOP by 20.9% ((0.0059*4.5302)/ (1-0.8719)) relative to its mean. The latter magnitude is substantially larger than that documented in model 1 above, which includes all institutions. In contrast, in unreported specifications, we find smaller magnitudes for the holding variables of smaller institutions. Hence, large institutions in particular are likely to use the SOP vote differently for their small-scale versus their large-scale investments.

A possible concern is that our results may be driven by firm quality, which may vary substantially between companies and be endogenously correlated with the magnitude of an institution's holdings. To address this concern, we conduct a simple test: including a company fixed effect in model 5 of Table 4 (Panel A). Doing so allows us to observe whether different institutions' votes for a given company vary based on the magnitudes of their holdings. In addition, in unreported specifications, we replace our holding variables with one-year lag or one-year lead variables as proxies for levels of holdings that are unrelated to the expected future performance of a stock.[20] Once again, the results are very similar. For further tests addressing endogeneity concerns, see Section 6.3.

It is possible that institutions have fewer incentives to carefully monitor their small-scale investments, and, therefore, vote against management quite randomly, or for the wrong reasons.[21] We address this possibility in model 6 of Table 4 (Panel A), in which we add an interaction variable between the holding variables and the abnormal return over the 12 calendar months prior to the calendar month of the SOP vote ("Fraction of company held by institution times abnormal return" and "Institution's portfolio weight times abnormal return"). The results from this model are revealing: they indicate that the prior-year abnormal return influences the difference between institutions' voting patterns for their large vs. small shareholdings. Model 6 indicates that a one-standard-deviation increase in portfolio weight for a stock with a prior-year abnormal return that is one standard deviation below the mean increases the propensity to vote with management by 7.5% relative to the mean. Thus, our results suggest that, for their small-scale investments, institutions target underperforming firms for which they vote against management on the SOP vote, which suggests that their votes are driven by calculated monitoring rather than randomized voting.

Finally, in model 7, we repeat model 1, but use an alternative measure capturing an institution's

[20] Institutions' stock trades are most strongly related to returns in the subsequent year; lagged and lead holdings are unlikely to be related to these returns, and serve as a proxy for the "normal" long-term holding of a particular stock by a particular fund or institution.

[21] We thank Darrell Duffie for bringing up the idea of "random voting" by small-scale investors in response to their incentives.

SOP support rate. Here, we follow Davis and Kim (2007), who analyze votes cast at the institutional level (but do not address the effect of the magnitude of a holding), and create an equal-weighted measure of an institution's SOP support level:

$$\text{Equal weight of institution's SOP support} = \sum_{i=1}^{n} \frac{1}{n} * V_i \qquad (2)$$

where n is the total number of mutual funds advised by an institution for which ISS reports voting data, and V_i equals one if fund i votes with management, and zero otherwise. The correlation between our two measures (the weighted average and the equal-weighted measure) is 0.98. Accordingly, it is not surprising that model 7 documents results similar to those documented in model 1.

Finally, we point out that the larger the "Fraction of shares held by executives" (who are permitted to cast votes, just like any other shareholder), the more likely institutions are to oppose management on SOP. Thus, while prior research (e.g., Jensen and Murphy, 1990) indicates that management share ownership helps align the incentives of management with shareholders, institutions apparently perceive high ownership by management as problematic, at least with respect to compensation. We further consider voting patterns related to blockholder and executive ownership when we discuss vote outcomes on the aggregate level in Section 6.2.

Thus far, our findings suggest that, even though theory predicts that small-scale investors are more likely to free-ride, when a low-cost monitoring opportunity is made available, small shareholders are more likely to explicitly use the SOP vote to voice discontent. Accordingly, the SOP vote appears to serve as a coordinating mechanism for a large number of small shareholders. This is notable since prior research suggests that coordinating numerous small shareholders can be challenging to accomplish (e.g., Fluck, 1999). We also note that Table 4 (Panel A) documents that shareholders increasingly use the SOP vote to voice discontent when it is more feasible to coordinate votes, i.e., when "Number of institutions voting on a proposal" is small, consistent with Edmans and Manso (2011) and Edmans and Holderness (2017).

While most of our analyses focus on SOP, in Panel B of Table 4, we address the question of whether the patterns we document prevail in other votes. Accordingly, we expand the analysis to all votes. Since the regressions include many different types of votes, we include a fixed effect for each type of proposal (using ISS's "issagendaitemid" classifications). Models 1-3 do not include an institution fixed effect, and are not clustered at the institutional level, while models 4-6 do include this effect. Models 1 and 4 report all votes. We also report separate results for proposals sponsored by management (models 2 and 5) versus those sponsored by shareholders (models 3 and 6), since

proposals sponsored by shareholders tend to be less routine and may potentially be more contentious. These models document a pattern similar to that we have observed thus far–institutions are more likely to vote in support of management when their holdings are larger. Hence, Panel B suggests that the pattern we document extends beyond SOP. However, the results in Panel B are not always significant, and the coefficients have smaller economic magnitudes compared to those documented for the SOP vote (Table 4, Panel A). Moreover, these results are not robust when we examine subsets as those reported later in Table 7. Hence, while the pattern of small shareholders opposing management seems to prevail to some extent across the board, the results are particularly strong and consistent for the SOP vote.

In sum, this section documents that a financial institution is particularly likely to oppose management on SOP when the magnitude of its holding is small relative to its other holdings.

4. Why is the Magnitude of the Investment Related to the SOP Vote?

Thus far, we have documented that institutional shareholders with small-scale investments are more likely to oppose management on SOP, while institutional shareholders with large-scale investments are more likely to support management on SOP. This raises the question of why institutions follow these trading patterns. In this section, we propose two explanations.

First, we propose that the SOP vote may serve as a potential threat to management, and, accordingly, may increase the dialogue between management and shareholders before the vote takes place. If we consider voting against management on SOP a form of intervention, as Fos and Kahn (2017) demonstrate, shareholders can discipline management using the threat of intervention. This is likely to catalyze communication and negotiations with large-scale shareholders before the SOP vote takes place (Brady, 2012), thus mitigating the need for these investors to vote against management. This argument is supported by Semler Brossy (2013), who note that "one of the positive outcomes of the Say on Pay provision in the Dodd Frank legislation has been more regular dialogue between companies and shareholders." Once the large shareholders have had this dialogue with management and reached a consensus, these shareholders may well vote in support of SOP. Small shareholders likely don't have such access to management, and thus may rely on the SOP vote to voice displeasure.

The second reason why institutions may vote in support of SOP for their large-scale investments is that there may be negative short-term consequences for opposing management. For instance, if a SOP vote results in lower support for management than expected, the market may interpret this as a signal from shareholders that management is performing below expectations. Under

this scenario, we might expect a negative abnormal return following SOP votes with low support rates. In turn, this may motivate funds and institutions to refrain from voting against management on SOP for their larger portfolio weight investments, since such a vote may have a negative impact on their portfolio return, at least in the short run. In related work, Iliev and Vitanova (2018) and Cuñat, Gine, and Guadalupe (2016) document that the decision to hold a SOP vote leads to positive abnormal returns. In our analysis, we shall examine how the outcome of the SOP vote relates to abnormal returns.

In Table 5, following Cuñat, Gine, and Guadalupe (2012), we examine abnormal returns around the meeting date. Because companies can observe the votes cast electronically as soon as they are cast, i.e., before the meeting date, information on the votes cast may leak before the meeting date. Companies are required by the SEC to disclose the results of the SOP vote no later than four days after the meeting date. Given this setting, in Table 5, we examine the cumulative abnormal returns during different event windows surrounding the meeting date.

Abnormal returns are estimated by subtracting the buy-and-hold CRSP value-weighted market return from a company's buy-and-hold return around the meeting date. The universe of events in Table 5 includes the days on which a given company held a shareholder meeting that included a SOP proposal. Because the latter is already an event (that is, the existence of the SOP proposal itself), we control for this event with an intercept in our CAR analysis.

The primary variable of interest in Table 5 is "Fraction voted for SOP." As the coefficient estimates indicate, holding a meeting in which all shareholders vote in favor of management on SOP (i.e., "Fraction voted for SOP"=1.0), leads to almost no price reaction for the stock (i.e., the estimated constant plus the estimated coefficient on "Fraction voted for SOP" multiplied by 1 sum to roughly zero). However, as opposition to SOP grows, the CAR becomes increasingly negative. For example, model 3 in Panel A of Table 5 indicates that, using a nine-day window (-4,+4), a one-S.D. decrease in the SOP support rate is expected to lead to a 0.21% (-0.127*0.017) average decrease in CAR; this result is statistically significant at the 1% level. Moreover, some SOP vote outcomes are associated with much more extreme negative returns.[22]

In Panel B of Table 5, we examine whether votes that received particularly low support rates are followed by a negative CAR. We define an indicator variable that equals one if the vote received a

[22] For example, in 2011, Talbots received only 47.41% support on the SOP vote, and experienced a -15.42% CAR in the nine-day window surrounding the vote.

support rate that exceeded 70%, and zero otherwise. We choose the 70% threshold because votes below this threshold are viewed by ISS as low-support votes.[23] Indeed, the results demonstrate that, when support rates for SOP fall below 70%, the average abnormal return during a nine-day window (-4,+4) is 0.79% smaller compared to that of companies receiving support rates equal to or exceeding 70%.

We next address the possible concern that the market response is influenced by results from other vote outcomes released on the same day as the SOP vote is made public. Accordingly, in Panel C, we exclude all companies for which a proposal submitted by a shareholder was voted upon, since these non-routine proposals may be driving the CARs. The results of models 1-4 of Panel C are very similar to those reported in Panel A, indicating that the CARs are not driven by irregular shareholder proposals.

In models 5-8 of Panel C, we address the possibility that the market is responding to the outcome of votes on director elections. Before SOP was introduced, director election votes was the best opportunity shareholders had to provide, on a regular basis, some feedback to management (Cai, Garner, and Walking, 2009). It is possible that shareholder votes on director elections, and not on SOP, are driving the CARs we observe above. Accordingly, we include in the specifications the average support rate received by the slate of directors proposed by the company. The results indicate that the latter variable is insignificant, while the fraction of votes cast in support of SOP remains significant. Hence, these results further corroborate the conclusion that the CARs we document are a response to the SOP vote rather than to other votes.

We note that Cuñat, Gine, and Guadalupe (2012) find positive abnormal returns around shareholder meetings, but they focus on a small subset of votes that pass by a small margin. For the 1987-1994 period, Gillan and Starks (2000) do not find a relation between the fraction of votes cast in support of proposals submitted by shareholders and abnormal returns. Hence, the market has not always clearly responded to the outcomes of shareholder votes.

In unreported specifications, we repeat the CAR analysis using value-weighted size-decile portfolios as benchmarks against which we compute abnormal stock returns, and find almost identical results.[24] In additional unreported specifications, we examine whether a negative relation exists

[23] See this source, for example: https://www.isscorporatesolutions.com/shareholder-support-for-say-on-pay-wanes-slightly-in-2016/

[24] The buy-and-hold value-weighted size-decile portfolio includes all companies that are in the same size decile (using NYSE size breakpoints) as the company of interest, as of the end of the most recent calendar year (following, e.g., Lakonishok, Shleifer, and Vishny, 1992). The "WRDS CRSP stock-portfolio assignments, capitalization deciles" is used to assign stocks to size deciles.

between low SOP support rates and CARs in each of the following subsamples: Glass Lewis (the chief competitor to ISS) recommended voting for SOP, Glass Lewis recommended voting against SOP, firms within the top quartile of the 12-month abnormal return, and firms within the bottom quartile of the 12-month abnormal return. Our findings remain consistent in these subsets, further supporting the conclusion that higher opposition to SOP leads to a more negative abnormal return.[25]

5. Votes Cast at the Mutual Fund Level

In this section, we return to our result from Section 3—institutions are more likely to oppose management on their small-scale investments—and examine whether similar patterns exist at the fund level, meaning that funds are particularly likely to vote in support of SOP for their large-scale holdings. Accordingly, in this section, we measure holdings at the fund level. As discussed in Section 2.3, some institutions delegate voting decisions to fund managers, and a fund's voting decision may be affected by the magnitude of its holding, as documented by Iliev and Lowry (2015).

To conduct our fund-level analysis, we use the CRSP mutual fund database,[26] and estimate each of the two holding variables at the fund level—the fund's portfolio weight (with a median value equal to 0.16%, see Table 2, Panel A) and the fraction of outstanding shares held by the fund (with a median value of 0.02%). We exclude from our analysis funds that manage less than 50 million dollars in assets, because we want to ensure that our results are not driven by small funds. Excluding these funds does not alter the results.

The analysis reported in Table 6 is performed at the fund-company-year level. Our specifications include fund fixed effects, because we wish to observe how the SOP votes cast by a specific fund differ depending on the magnitude of each holding. The dependent variable in Table 6 equals one if the fund voted for SOP (indicating support of the compensation awarded), and zero otherwise. Unless noted otherwise, the regressions are OLS, since logit models are not suited for including interaction terms (Ali and Norton, 2003; Greene, 2010). However, to provide support for the robustness of our findings, we also report a logit model of the main findings.

The results in Table 6 show that, similar to the institutional-level results (Table 4, Panel A), mutual funds are more likely to vote in support of SOP when compensation is small and company performance is strong. With respect to our primary variables of interest–the holding variables at the

[25] In unreported specifications, we do not find a discontinuity around the 50% opposition rate and its effect on CAR.
[26] We use the CRSP mutual fund database as our primary source for computing the holding variables (as opposed to the Thompson s-12 files), because Schwarz and Potter (2015) estimate that, starting from the 4th quarter of 2007, the CRSP mutual fund dataset is the most thorough individual dataset available.

fund level–Table 6 documents that, the larger a stock's weight in a mutual fund's portfolio, the more likely the fund is to vote in support of SOP. According to model 1 of Table 6, a one-S.D. increase in "Fund's portfolio weight (as a fraction)" for a given company is associated with a decrease of 6.8% in that fund's SOP opposition rate ((0.87%*0.8098)/(100%-89.66%)) relative to the fund's mean opposition rate.

Similarly, model 1 of Table 6 documents that the larger the "Fraction of company's shares held by fund", the less likely the fund is to vote against SOP. The specification estimates that a one-S.D. increase in this variable is associated with a 4% decrease in in the SOP opposition rate. These findings indicate that mutual funds exhibit voting behavior consistent with that of institutions—the larger the holding, the less likely funds are to publicly oppose management via the SOP vote.

In model 2, we report a logit version of model 1, which reports results consistent with those of model 1. The results imply that, assuming all control variables are equal to their means, a one-S.D. increase in "Fund's portfolio weight (as a fraction)" or "Fraction of company's shares held by fund" is expected to decrease the SOP opposition rate by 6.31% or 2.87%, respectively.

In model 3, we repeat the analysis excluding fund fixed effects. The results pertaining to the fund-level holding variables are even stronger, indicating that the patterns we find apply not only to the variation in the magnitude of holdings within funds, but also to such variation between funds. This result demonstrates that at the fund level, the pattern of funds voting against SOP for their small-scale investments, applies not only within funds, but also across funds.

Now that we have documented that the holding variables at both the fund and the institutional levels relate to the SOP votes cast, we next examine which of these associations dominate. The holding variables at the fund level and the institutional level are all positively correlated with each other (see Table 2, Panel B). We include all four of these holding variables in model 4 of Table 6. Model 4 documents that the effect of the institution's portfolio weight is particularly dominant compared to that of the fund: its coefficient is approximately 5 times larger than the parallel coefficient at the fund level. If the weight of a company in an institution's portfolio decreases by one S.D., the institution's SOP opposition rate is expected to increase by 9.13% ((0.0059*1.9838)/(1-0.8719)). In comparison, a one-S.D. decrease in the fund's portfolio weight is only expected to increase the fund's SOP opposition rate by 3.23% ((0.0087*0.3837)/(1-0.8966)). These two values demonstrate that the portfolio weight at the institutional level dominates its fund-level counterpart, reinforcing the conclusion that the magnitude of an institution's holdings is an important determinant of its SOP voting decisions. In addition, similar to our findings at the institutional level, all Table 6 specifications

report that funds are more likely to vote against management when the "Fraction of shares held by blockholders" is large.

Model 4 of Table 6 documents that if "Fraction of company's shares held by institution" decreases by one S.D., the institution's SOP opposition rate is expected to increase by 3.86% ((0.0231*0.2140)/(1-0.87194)). In this specification, "Fraction of company's shares held by fund" is insignificant, further highlighting the robustness of the institutional-level holding variables as opposed to the fund-level holding variables. As in Table 4 (Panel A, model 4), to address the possibility that funds invest more in "good" companies, and invest less in "bad" companies, we include a company fixed effect in model 5 of Table 6. The results remain similar.

Similar to Panel A of Table 4, model 6 of Table 6 examines whether our results are robust to adding an interaction term between each of the holding variables at the fund level and company performance ("Fund's portfolio weight times abnormal return" and "Fraction of company held by fund times abnormal return"). Our primary result remains intact; also, the coefficient on "Fund's portfolio weight times abnormal return" implies that when a fund's portfolio weight is small and the stock's abnormal return is negative, funds tend to oppose management more frequently on the SOP vote. This finding demonstrates, once again, that funds' opposition to SOP for their small-scale investments is not random, rather, funds use the SOP vote, for their small-scale investments, to target underperforming firms.

In model 7, we add the holding variables at the institutional level and interaction variables for that level ("Institution's portfolio weight times abnormal return" and "Fraction of company held by institution times abnormal return"). Both holding variables at the institutional level remain significant, while those at the fund level are not always statistically significant. Moreover, the interaction variables at the institutional level reflect a consistent pattern, while those on the fund level no longer do so. The results document that, when an institution's portfolio weight is small and abnormal returns are negative, institutions tend to oppose management more frequently on the SOP vote. This consistent and robust pattern at the institutional level further suggests that, compared to the fund level, the institutional-level holding variables are more strongly related to the votes cast by an institutional advisor's funds.

Finally, as an additional robustness check, in an unreported analysis, we re-estimate our results using Thompson s-12 mutual fund holdings data, rather than the CRSP holding dataset. We do this analysis because each of these datasets includes mutual funds that the other does not (Schwarz and Potter, 2015). We find that the holding variables in both datasets are highly correlated. In unreported

specifications, in which we use the Thompson data, the results are very similar to the results reported throughout this paper.

In sum, in this section, we measure the holding variables at the fund level and document that funds are more likely to oppose management on SOP for their small-scale holdings compared to their large-scale holdings. However, once we include the holding variables at the institutional level, these latter variables dominate those at the fund level, indicating that our results are driven more strongly by the institutional-level holding variables. Hence, the magnitude of institutions' holding, rather than the comparable figures on the fund level, particularly seem to drive the SOP votes cast by funds.

6. Subsets, Aggregate level, and Endogeneity

6.1. Are the Findings Driven by a Subset?

It is possible that small shareholders are more likely to oppose management on SOP only in certain situations. Accordingly, in this section, we examine whether our findings differ between specific subsets of SOP votes. We first follow Iliev and Lowry (2015), who show that, when ISS recommends voting against management, funds are more likely to disregard the recommendation when their holdings are large. Accordingly, we repeat the analysis from model 4 of Table 6, splitting the sample according to whether ISS recommended voting for or against SOP. The results are reported in Table 7, models 1 and 2, respectively.

In model 1 (restricted to observations for which ISS recommended voting against SOP) and model 2 (restricted to observations for which ISS recommended voting for SOP), we observe once again that the institutional-level holding variables dominate the fund-level holding variables. The former are substantially larger than the latter, and they are significant at the 1% level, while their counterparts at the fund level are insignificant. Both models demonstrate that institutions are more likely to oppose management on their small-scale investments.

We point out that these findings differ from those of Iliev and Lowry (2015), who focus on the pre-SOP era (and, hence, do not consider SOP votes). Iliev and Lowry (2015) examine the factors that predict funds' deviations from ISS's recommendations. They find that, when ISS recommends voting in support of management, which is the case for the majority of proposals, the magnitude of a fund's holding is either *negatively related* or *not significantly related* to the vote it casts (See Tables 3 and 4 in their paper). When we repeat Iliev and Lowry's (2015) analyses in unreported specifications, we obtain results that are similar to theirs. However, in our own analyses, we document a different pattern with respect to SOP. We find that, when ISS recommends voting in support of management, funds

are more likely to *oppose* management for their small-scale investments, a pattern that also holds when ISS recommends voting against management. Hence, the pattern we document for SOP is extremely robust, and is prevalent for both types of ISS recommendations, which implies that for their small-scale investments, funds are particularly "tough" monitors when they vote on SOP.

In models 3 and 4, we examine whether our results apply only to small companies (those with a market capitalization below 10 billion dollars, model 3) or large ones (those above this threshold, model 4). We address this possibility because the SOP vote may plausibly be more important for governing small- and mid-cap firms, who may have more power concentrated in top management relative to independent board members. As models 3 and 4 indicate, our findings are robust in both subsets.

Following Admati and Pfleiderer (2009) and Edmans (2009), we also examine whether funds that have the option to sell their shares rather than "protesting" management by voting against SOP vote differently from funds that do not have the option to walk the "Wall Street walk." Accordingly, we split our funds into actively managed funds (model 5 of Table 7) and index funds (model 6 of Table 7).[27] We find some evidence indicating that institutional investors are more likely to oppose management on SOP for their small-scale investments in both types of funds: "Institution's portfolio weight (as a fraction)" is significant and positive in both subsets. However, the results are more robust for actively managed funds: "Fraction of company's shares held by institution" is significant and positive in the subset of actively managed funds, but not statistically significant in the subset of index funds. Hence, while institutions are more likely to oppose management on SOP for their small-scale investments in both index and actively managed funds, this pattern is more robust for the actively managed funds, which have discretion to determine their investment allocations.

In sum, this section documents that while our main results—institutions are more likely to oppose management on the SOP vote for their small-scale investments—are stronger in certain subsets, these results hold across different subsets.

6.2. Aggregate Votes

In Sections 3 and 5, we documented that large-scale shareholders are more likely to vote in support of SOP. In this section, we examine whether aggregate votes (i.e., votes at the company level) further support this conclusion by documenting a positive association between the fraction of shares

[27] We categorize funds as index funds if CRSP flags the fund as an index fund, or the fund's name suggests that it is an index find (e.g., fund name contains the words "index" or "idx" or "S&P 500" or "Russell 1000").

held by blockholders (each holding at least 5% of the company's shares) and SOP support rates.

In Table 8, we examine the aggregate level of voting, and, accordingly, include one observation for each company-year combination. Indeed, model 1 of Table 8 indicates that the larger the "Fraction of shares held by blockholders", the larger the "Fraction voted for SOP" (results are significant at the 1% level). Using the coefficient from model 1 of Table 8, we estimate that a one-S.D. increase in "Fraction of shares held by blockholders" is expected to lead to a decrease of 8.5% ((0.1669*0.0519)/(1-0.8981)) in the SOP opposition rate.

We note that the abovementioned pattern documented at the aggregate level contradicts that documented at the institution and the fund levels—the larger the fraction of shares held by blockholders, the *larger* institutions' and funds' SOP opposition rates. This contrast further suggests that the positive relation between blockholders and SOP support rates at the aggregate level is likely driven by small-scale shareholders opposing SOP when blockholders are present, consistent with the results documented in regression reported in Table 4, model 3.

We also point out that the larger the "Fraction of shares held by executives", the larger the SOP support rates.[28] This result also stands in contrast to the results reported in Tables 4 and 6 (the institution and the fund level, respectively): these prior results show that larger executive shareholdings are associated with a higher likelihood of institutions and funds opposing management on SOP. This contrast suggests that executives vote in support of their own compensation, while mutual funds and institutions are more reluctant to vote for SOP when executives hold more shares.

Our results above regarding blockholders' and executives' shares are robust to controlling for the compensation awarded to the other four named executives (i.e., excluding the CEO, model 2), and controlling separately for the predicted versus the residual compensation of the CEO (model 3) and of the other four named executives (model 4).[29]

In Appendix B, we examine whether the shareholder structure is related to companies' responses to SOP votes. We find that, after controlling for performance, companies with a non-insider

[28] As discussed earlier, management always recommends an affirmative vote on SOP; thus, we would expect a coefficient of unity on "Fraction of shares held by executives." Since the coefficient is 0.1558 (see model 1 of Table 8), consistent with the results of model 3 of Table 4 (Panel A), we infer that non-management shareholders much more frequently oppose management when management's level of ownership is higher. In other words, non-executive shareholders appear to "push back" by voting more frequently against management when management owns more of the company.

[29] Specifications 3 and 4 follow Core, Guay, and Larcker (2008) and Ertimur, Ferri, and Muslu (2010). The compensation model for company i in year t is estimated by regressing the total compensation awarded to the CEO or four other named executives on the lagged ROA, abnormal returns, market capitalization, age of CEO, and tenure of CEO, as well as fixed year and industry effects. The residual of this model is a proxy for what investors may perceive as excessive compensation, since it is not explained by the observed variables.

blockholder and a low SOP support rate are more likely to: (1) experience CEO turnover within 12 months of the SOP vote; (2) pick more modest peer companies for determining executive compensation; and (3) decrease the growth rate of residual executive compensation. These findings indicate that, while blockholders and other large-scale shareholders are less likely to vote against management on SOP, companies are particularly likely to demonstrate responsiveness to shareholder dissatisfaction when a non-insider blockholder is present. Thus, while large blockholders may not vote against management, they may serve as a "reluctant watchdog" for small-scale investors.

In sum, this section further supports the conclusion that particularly small shareholders are likely to explicitly oppose management on the SOP vote.

6.3. Endogeneity

As we have noted, the magnitude of a fund's or an institution's investment may well be endogenously chosen, meaning that funds and institutions are more likely to buy larger stakes in companies which they find particularly attractive, and smaller stakes in companies they find somewhat less attractive; they will likely not hold any stocks of companies they find completely unattractive. We agree that stock selection is not random. In this section we address the possibility that our results merely reflect the endogenous choice of institutions and funds to invest more in companies they view particularly positively, as opposed to the SOP being a governance mechanism they frequently use to govern their small-scale investments. Consequently, we focus on index funds, which do not have discretion with respect to their investment allocations. Index funds' investment allocations provide a laboratory for examining the relation between the magnitude of an institution's/ fund's holding and the votes it casts when the magnitude of the investment is exogenously determined. Our analysis in this section focuses on one of our primary holding variables— "Fraction of company held".

We follow Crane et al. (2016) and Boone and White (2016), who document a discontinuity in the holdings of 13f institutions around the Russell 1000-Russell 2000 cutoff. These authors document that institutions hold a smaller fraction of companies that are assigned to the bottom of the Russell 1000 index, compared to the companies assigned to the top of the Russell 2000 index. Appel et al. (2016) document a similar discontinuity with respect to index funds' holdings. The intuition for this ownership discontinuity is as follows. Russell ranks all companies by market capitalization. The largest 1000 companies are assigned to the Russell 1000 index, while the next 2000 companies are assigned to the Russell 2000. Russell then ranks all firms within an index by float-adjusted market capitalization, and assigns each firm a portfolio weight accordingly. Hence, companies that are ranked in the bottom

of the Russell 1000 have miniscule weights in the Russell 1000 index, and little index ownership. In contrast, companies ranked in the top of the Russell 2000 have large portfolio weights and large index ownership, and thus, also larger institutional ownership. The companies around the Russell 1000-2000 cutoff are of similar size; hence, this setting provides a plausibly exogenous variation to institutional and index fund ownership. Following these papers, we define the following first stage regression that is limited to the 250 companies on either side of the Russell 1000-2000 cutoff (as ranked by Russell's portfolio weights):

$$\%\ \text{company held}_{ict} = \alpha + \beta * \text{R2000}_{ct} + \gamma * \text{Ln(marketcap)}^2_{ct} + \text{banding controls} + \text{other controls} + \text{u}_{ict} \quad (3)$$

We define "$\%\ \text{company held}_{ict}$" as the predicted percent of company c, held by institution i in year t (i.e., the voting year). R2000_{ct} is an indicator variable that is equal to 1 if company c is within the top 250 companies of the Russell 2000 index, and 0 if it is within the bottom 250 companies of the Russell 1000 index in year t; $marketcap$ is the CRSP market capitalization as of May of the preceding year. "Banding controls" are the variables used by Appel et al. (2018) to control for the post-2006 Russell banding methodology for classifying companies in the Russell indexes: an indicator for having an end-of-May market capitalization sufficiently close to the cutoff such that the firm will not switch indexes, a dummy for being assigned to the Russell 2000 in the previous year, an interaction variable of the latter two variables, ln(marketcap)^2, and ln(float-adjusted market cap as estimated by Russell). Finally, "other controls" include all control variables included in Table 4 (Panel A).

In models 1-2 of Table 9, we report the results of the 2sls analysis at the institutional level, while in models 3-4, we report this analysis at the index fund level (Regressions 3-4 are limited to index funds). In model 1 of Table 9, our first stage regression indeed predicts that institutions are likely to hold a larger fraction of companies that are at the top of the Russell 2000 index, compared to companies at the bottom of the Russell 1000 index. Model 2, which reports the second stage at the institutional level, confirms our prior results—the larger the fraction of company held, the more likely the fund is to vote in support of management on the SOP vote (results are significant at the 10% level, and the F-statistic is larger than 10, as required by Stock et al., 2002). Similarly, model 3, which reports the first stage regression at the index fund level, and model 4, which reports the second stage regression at the index fund level, document a similar pattern at the fund level (results are significant

at the 5% level, and the F-statistic is larger than 10).[30] Hence, these findings confirm our main results while addressing endogeneity concerns.

7. Conclusion

Our study shows that the SOP vote, which offers a low-cost monitoring opportunity, increases the extent to which institutional shareholders are likely to explicitly voice criticism regarding their small-scale investments. Hence, offering low-cost monitoring opportunities increases the extent to which the most common type of shareholders—institutions holding small stakes—are involved in governing companies, and offers them a coordination mechanism. Large shareholders, for whom the benefits of active monitoring may exceed the costs, may also be using the SOP vote as a threat to govern management via "behind-the-scenes intervention", consistent with the accounts of Brady (2012) and Spencer Stuart (2014). Taken together, the findings suggest that introducing a low-cost monitoring opportunity potentially offers both small and large shareholders a mechanism which may be used, albeit in different ways by each of these types of shareholders, to govern the companies they hold.

[30] The magnitudes documented in our second stage regressions (models 2 and 4) are larger than those documented in the OLS regression, perhaps because the Table 9 specifications include only a subset of our observations—those around the Russell 1000-2000 cutoff; within this subset, the pattern we have documented throughout the paper may be more pronounced. Nevertheless, the results in Table 9 confirm the pattern we have observed throughout the paper—institutions and funds are more likely to vote in support of SOP for their large-scale holdings.

Glossary of Variables

Variable name	Definition	Source
Company-level variables		
Average compensation of 4 executives t-1 (in $Millions)	Average compensation of top 4 executives, computed by authors	ISS compensation data, based on proxy data
CEO age (years)	Age of CEO	ISS dataset on executives
CEO tenure (years)	Tenure of CEO	ISS dataset on executives
Firm abnormal return	Firm abnormal return above the value weighted market portfolio over the 12 months preceding the vote	CRSP
Fraction of shares held by blockholders	Fraction of outstanding shares held by blockholders who each hold at least 5% of the outstanding shares	GMI, based on proxy data
Fraction of shares held by executives	Aggregate fraction of shares held by executives	GMI, based on proxy data
Fraction of shares held by institutions	Total number of shares held by institutions/ number of shares outstanding	Thompson s-34 and CRSP, correspondingly
Fraction voted for SOP	Fraction of votes cast for SOP/ all SOP votes cast	ISS voting analytics dataset
ISS recommended voting for SOP	Equals one if ISS recommended voting for SOP, and zero otherwise	ISS voting analytics dataset
Market capitalization (in $Millions)	shrout*prc/1,000	CRSP
Number of institutional shareholders	Number of institutions voting (i.e., appearing in ISS voting analytics data).	ISS voting analytics dataset
Residual compensation	The residual from regressing the total compensation awarded to the CEO on the lagged: ROA, abnormal returns, market capitalization, age of CEO, tenure of CEO, and fixed year and industry effects.	ISS compensation data
ROA of company t-1	ebitda/(one-year lagged "at", i.e., total assets)	Compustat
Total compensation of CEO t-1 (in $Millions)	Total compensation of CEO	ISS compensation data, based on proxy data
Institutional-level variables		
Equal weight of institution's SOP support	Fraction of funds within institution that voted for SOP	ISS voting analytics dataset
Fraction of company's shares held by institution	shares/(shrout2*1000)	Thompson s-34 and CRSP, correspondingly
Institution's portfolio weight (as a fraction)	prc*shares/ total assets managed by institution.	Thompson s-34
Number of institutions voting on proposal	Number of institutions voting on proposal included in the ISS voting analytics dataset	ISS voting analytics dataset
Total assets managed by institution (in $Trillions)	The sum of the value (prc*shares) of all holdings of an institution in a given quarter/ 1 trillion	Thompson s-34 and CRSP, correspondingly
Weighted average of the institution's SOP support rate	(Fraction of company held by fund i / total fraction of company held by all funds advised by the same advisor) * binary variable that equals 1 if fund i voted for SOP, and zero otherwise	Thompson s-34 and ISS voting analytics dataset

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Variable name	Definition	Source
Mutual-fund-level variables		
Annual net flow of fund	We estimate the monthly inflows (after taking into account the monthly return), and then estimate the total net flows during the 12 months preceding the vote.	CRSP mutual fund
Expense ratio (weighted average of share classes)	Weighted average (by class) of fund's expense ratio - "fexp_ratio."	CRSP mutual fund
Fraction of company's shares held by fund	nbr_shares/(shrout2 *1000)	CRSP mutual fund and CRSP, respectively
Fund twelve-month characteristic selectivity return	Calculated by the authors using the Daniel, Grinblatt, Titman, & Wermers (1997) approach.	Thompson Reuters s12
Fund voted for SOP	A binary variable that equals one if the fund voted for SOP, and zero otherwise.	ISS voting analytics dataset
Fund's portfolio weight (as a fraction)	percent_tna/100, where percent_tna is the security's percentage of the total net assets in the portfolio	CRSP mutual fund
Number of funds voting on proposal	Number of funds voting on proposal included in the ISS voting analytics dataset	ISS voting analytics dataset
Total net assets managed by fund (in thousand $)	mtna/1000, where mtna is defined as "assets minus total liabilities as of month-end."	CRSP mutual fund
Turnover ratio (weighted average)	Weighted average (by class) of fund's turnover ratio – "fturn_ratio."	CRSP mutual fund

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Table 1: Shares held and votes cast by institutions and mutual funds

This table estimates, for the 2011-2013 period, the shares held and votes cast by institutions and mutual funds. The aggregate percentage of shares held by institutional investors (mutual funds) is estimated by dividing the aggregate number of shares held by all institutions (mutual funds) in a given stock and a given year, in the quarter preceding the vote, by the total number of shares outstanding, and then calculating the average across all stock-years. ProxyPulse (2014) reports that, for S&P 1500 companies, 90% of all institutional shareholdings are voted, while only 29% of all retail shareholdings are voted. Based on these figures, we estimate the percentage of SOP votes cast by institutions and mutual funds. For example, we estimate that, 87.7% (69.63%*0.9)/((69.63%*0.9)+(1-69.63%)*0.29) of the SOP votes cast are cast by institutional investors.

	Average
Aggregate percentage of shares held by institutional investors	69.6%
Estimated percentage of SOP votes cast by institutional investors	87.7%
Aggregate percentage of shares held by mutual funds	28.5%
Estimated percentage of SOP votes cast by mutual funds	35.7%

Table 2
Panel A: Summary statistics
This table reports summary statistics for the SOP observations during the 2011-2013 period included in this study. Variables are defined in the Glossary of Variables.

Variable name	n	Mean	25th percentile	Median	75th percentile	S.D.
Institutional-level variables						
Fraction of company's shares held by institution	63,490	0.01383	0.00057	0.00292	0.01633	0.0231
Institution's portfolio weight (as a fraction)	63,490	0.00181	0.00006	0.00025	0.00114	0.00591
Number of institutions voting on proposal	63,490	62.97221	43	59	80	26.73242
Total assets managed by institution (in $Trillions)	63,490	0.15485	0.01139	0.03571	0.20244	0.22758
Weighted average of the institution's SOP support rate	63,490	0.87194	1	1	1	0.32398
Mutual-fund-level variables						
Annual net flow of fund	181,341	-0.0049	-0.1322	-0.0392	0.0766	0.2225
Expense ratio (weighted average of share classes)	181,341	0.0075	0.0025	0.007	0.0113	0.0051
Fraction of company's shares held by fund	181,341	0.0021	0	0.0002	0.0014	0.0127
Fund twelve-month characteristic selectivity return	181,341	0.0051	-0.0051	0.0024	0.0159	0.0357
Fund voted for SOP	181,341	0.8966	1	1	1	0.3045
Fund's portfolio weight (as a fraction)	181,341	0.005	0.0004	0.0016	0.006	0.0087
Number of funds voting on proposal	181,341	304.1387	150	244	405	209.0957
Total net assets managed by fund (in thousand $)	181,341	2.7008	0.099	0.3988	1.9398	8.7968
Turnover ratio (weighted average)	181,341	0.5531	0.12	0.33	0.78	0.6416
Company-level variables						
Abnormal return	4,612	0.0262	-0.1759	-0.0006	0.1745	0.3736
Average compensation of 4 executives t-1 (in $Millions)	4,612	1.9013	0.7276	1.2442	2.2642	2.3838
CEO age (years)	4,612	55.8889	51	56	61	7.2622
CEO tenure (years)	4,612	8.3407	2.6301	5.8288	10.6027	10.9238
Fraction of shares held by blockholders	4,612	0.2679	0.144	0.249	0.364	0.1669
Fraction of shares held by executives	4,612	0.1051	0.02	0.045	0.1115	0.1568
Fraction of shares held by institutions	4,612	0.6963	0.5853	0.7542	0.8565	0.2047
Fraction voted for SOP	4,612	0.8981	0.8759	0.9479	0.9752	0.127
ISS recommended voting for SOP	4,612	0.8703	1	1	1	0.336
Market capitalization (in $Millions)	4,612	6627.54	437.11	1279.33	4067.23	22504.82
Number of institutional shareholders	4,612	219.3828	93	145	255	221.2978
ROA of company t-1	4,612	0.1109	0.0499	0.1187	0.1842	0.4942
Total compensation of CEO t-1 (in $Millions)	4,612	5.1781	1.5163	3.1844	6.5596	7.624

Table 2
Panel B: Correlation matrix of the holding variables
This table reports the correlations between the holding variables.

	Institution's portfolio weight (as a fraction)	Fraction of company's shares held by institution	Fund's portfolio weight (as a fraction)	Fraction of company's shares held by fund
Institution's portfolio weight (as a fraction)	1			
Fraction of company's shares held by institution	-0.0568	1		
Fund's portfolio weight (as a fraction)	0.442	-0.0763	1	
Fraction of company's shares held by fund	-0.012	0.2929	0.0583	1

Table 3: SOP votes of 13f institutions
This table documents, for the 20 institutions (i.e., investment advisors) with the largest numbers of votes cast, the average frequency of SOP votes cast in the opposite direction of the ISS recommendation (Column 3), and the standard deviation of the SOP votes cast by the mutual funds advised by the institution (Column 4).

	Name of institution	Number of votes cast	% votes opposing ISS recomm.	S.D. of votes within institution
	(1)	(2)	(3)	(4)
1	BlackRock Advisors, Inc.	154,756	34%	1.02%
2	Vanguard Group, Inc.	124,903	7%	0.00%
3	Fidelity Management & Research	111,756	4%	3.67%
4	Dimensional Fund Advisors, Inc.	68,585	0%	0.01%
5	ProShare Advisors LLC	61,106	0%	0.00%
6	TIAA-CREF Asset Management LLC	60,822	9%	0.00%
7	Rydex Investments	48,975	21%	0.04%
8	T. Rowe Price Associates, Inc. (MD)	42,088	8%	0.50%
9	State Street Global Advisors	40,938	8%	1.96%
10	EQ ADVISORS TRUST	39,294	11%	10.87%
11	JPMorgan Asset Management, Inc. (US)	38,787	3%	1.89%
12	SEI Investments Management Corporation	33,414	0%	0.07%
13	Putnam Investment Management, Inc.	30,081	10%	4.07%
14	Charles Schwab Investment Management, Inc.	29,659	15%	0.04%
15	American Century Investment Management, Inc.	29,375	13%	0.00%
16	ING Funds	23,390	5%	0.46%
17	John Hancock Funds, LLC	22,518	3%	5.37%
18	Northern Trust Global Investments	22,048	22%	3.40%
19	Jackson National Asset Management, LLC	22,008	26%	20.38%
20	USAA Investment Management Company	21,880	11%	1.78%
	Average for *all* 357 institutions in study	5,016	11%	3.05%
	Median for *all* 357 institutions in study	535	9%	0.07%

Table 4: Votes cast at the institutional advisor level
Panel A: SOP votes

sThe panel reports OLS regressions at the institution-company-year level for the 2011-2013 period. The dependent variable in models 1-6 is the weighted average of the institution's SOP support rate, and the dependent variable in model 7 is the equal-weighted average of the institution's SOP support rate, both weighted by the magnitude of each fund's investment across all funds advised by the institution. All regressions include year and Fama-French 48 industry fixed effects. Errors are clustered at the institutional level. P-values are reported in parentheses. *, **, and *** indicate p<.05, p<.01, and p<.001, respectively.

	Weighted average of the institution's SOP support rate						EW inst. SOP support rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Institution's portfolio weight (as a fraction)	0.8845**	0.4842		4.5302**	0.8411**	0.9789**	1.0549**
	(.046)	(.658)		(.034)	(.047)	(.044)	(.015)
Fraction of company's shares held by institution	0.6422**	0.3732**	0.6579**	0.3806*	0.6376***	0.6551**	0.5932**
	(.014)	(.023)	(.012)	(.070)	(.008)	(.012)	(.030)
Fund's portfolio weight times abnormal return						-1.9413*	
						(.089)	
Fraction of company held by fund times abnormal return						-0.3986**	
						(.030)	
Top third blockholders, bottom third portfolio weight			-0.0043**				
			(.048)				
Top third blockholders			-0.0059				
			(.320)				
Bottom third portfolio weight			0.0012*				
			(.056)				
Fraction of shares held by blockholders	-0.0201**	-0.0172*		-0.0259*	0.0188	-0.0203**	-0.0181**
	(.015)	(.068)		(.057)	(.199)	(.014)	(.017)
Fraction of shares held by executives	-0.0176*	-0.0245*	-0.0161	-0.0330**	-0.0041	-0.0179*	-0.0240**
	(.077)	(.074)	(.105)	(.033)	(.931)	(.073)	(.013)
Total assets managed by institution (in $Trillions)	-0.0873	0.1153***	-0.0883	0.0171	-0.1418*	-0.0884	-0.0824
	(.311)	(.003)	(.305)	(.831)	(.087)	(.305)	(.349)
Total compensation of CEO t-1 (in $Millions)	-0.0036***	-0.0035***	-0.0036***	-0.0053***	-0.0030***	-0.0036***	-0.0035***
	(.000)	(.000)	(.000)	(.001)	(.000)	(.000)	(.000)
ROA of company t-1	0.0166	0.0166	0.0165	-0.0053	0.0194	0.0166	0.0153
	(.161)	(.177)	(.164)	(.171)	(.330)	(.160)	(.120)
Firm abnormal return	0.0085**	0.0136***	0.0172***	0.0061*	0.005	0.0173***	0.0097***
	(.019)	(.003)	(.001)	(.062)	(.187)	(.001)	(.004)
Market capitalization (in $Millions)	0.0001**	0.0001*	0.0001**	0.0001	0	0.0001**	0.0001**
	(.032)	(.083)	(.033)	(.650)	(.918)	(.041)	(.023)
Fraction of shares held by institutions	-0.0353***	-0.0281*	-0.0336**	-0.0332*	0.0316	-0.0356***	-0.0391***
	(.008)	(.078)	(.011)	(.068)	(.294)	(.008)	(.001)
Number of institutions voting on proposal	0.0005***	0.0005***	0.0005***	0.0008***	0.0001	0.0005***	0.0005***
	(.000)	(.005)	(.000)	(.001)	(.499)	(.000)	(.000)
CEO tenure (years)	0.000	0.0001	0.000	-0.0004*	0	0.000	0.000
	(.984)	(.669)	(.994)	(.070)	(.824)	(.998)	(.926)
CEO age (years)	-0.0005***	-0.0007***	-0.0005***	-0.0004**	0.0002	-0.0005***	-0.0005***
	(.002)	(.000)	(.003)	(.026)	(.691)	(.003)	(.001)
ISS recommended voting for SOP	0.4977***	0.4997***	0.4980***	0.3864***	0.4794***	0.4978***	0.5055***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Institution fixed effect	Yes	No	Yes	Yes	No	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Company fixed effects	No	No	No	No	Yes	No	No
Observations included	All	All	All	Large inst.	All	All	All
R-squared	0.476	0.299	0.476	0.411	0.488	0.476	0.483
N	63,490	63,490	63,490	21,843	63,490	63,490	69,004

Panel B: All Votes

The table reports OLS regressions at the institution-company-year level for the 2006-2013 period. This table includes all proposals. The dependent variable is the weighted average of the institution's rate of support for management. Regressions include, but do not report, all control variables included in Panel A of Table 4. All regressions include fixed effects for the type of proposal, the year, and the Fama-French 48 industry. Errors are clustered at the institutional level. P-values are reported in parentheses. *, **, and *** indicate p<.05, p<.01, and p<.001, respectively.

	Weighted average of the institution's funds voting with management					
	(1)	(2)	(3)	(4)	(5)	(6)
Institution's portfolio weight (as a fraction)	0.105**	-0.024	0.776***	0.322**	0.234*	0.257
	(.012)	(.538)	(.001)	(.030)	(.088)	(.541)
Fraction of company's shares held by institution	0.270***	0.215***	2.478***	0.131*	0.127*	0.994***
	(.000)	(.000)	(.000)	(.057)	(.077)	(.000)
Fraction of shares held by blockholders	-0.030***	-0.014***	-0.057***	-0.029***	-0.012**	-0.034**
	(.000)	(.000)	(.004)	(.000)	(.017)	(.046)
Fraction of shares held by executives	-0.050***	-0.030***	-0.060***	-0.048***	-0.028***	-0.070***
	(.000)	(.000)	(.001)	(.000)	(.007)	(.000)
ISS recommended voting for proposal	0.437***	0.504***	-0.406***	0.437***	0.504***	-0.406***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Observations included	All	Management sponsored	Shareholders sponsored	All	Management sponsored	Shareholders sponsored
Additional controls	Yes	Yes	Yes	Yes	Yes	Yes
Institution fixed effect	No	No	No	Yes	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Errors clustered at institutional level	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.336	0.317	0.261	0.377	0.364	0.464
N	910,498	861,219	49,279	910,498	861,219	49,279

Table 5: **CARs around SOP votes**

This table reports the cumulative abnormal returns (CARs) around the SOP votes held in the 2011-2013 period. Abnormal returns are calculated around the meeting date, by subtracting the compounded value weighted market return from a company's compounded return for: all observations (Panels A and B), companies for which no proposal was submitted by shareholders (models 1-4 of Panel C), and all companies, controlling for the average fraction of votes in support of directors (models 5-8 of Panel C). "SOP received support > 70%" is an indicator variable that equals one if SOP support rates exceed 70%. In each panel, we regress the estimated abnormal returns on the fraction of votes cast in support of SOP as well as an intercept. In all panels, CARs are expressed in fractions. P-values are reported in parentheses. *, **, and *** indicate p<.05, p<.01, and p<.001, respectively.

Panel A: Value weighted CAR for all observations

Window	[-1, 1] (1)	[-3, 3] (2)	[-4, 4] (3)	[-5, 5] (4)
Fraction voted for SOP	0.0088**	0.0144***	0.0170***	0.0171**
	(.018)	(.008)	(.006)	(.010)
Constant	-0.0074**	-0.0121**	-0.0151***	-0.0154**
	(.032)	(.015)	(.008)	(.012)
N	7,123	7,123	7,122	7,121

Panel B: Value weighted CAR for all observations – contrasting low SOP support rates with high support rates

Window	[-1, 1] (1)	[-3, 3] (2)	[-4, 4] (3)	[-5, 5] (4)
SOP received support > 70%	0.0029*	0.0063**	0.0079***	0.0075**
	(.097)	(.014)	(.007)	(.017)
Constant	-0.002	-0.0048*	-0.0068**	-0.0068**
	(.232)	(.051)	(.015)	(.026)
R-squared	0.000	0.001	0.001	0.001
N	7,123	7,123	7,122	7,121

Panel C: Value weighted CAR for all companies for which no proposal was submitted by shareholders

Window	[-1, 1] (1)	[-3, 3] (2)	[-4, 4] (3)	[-5, 5] (4)	[-1, 1] (5)	[-3, 3] (6)	[-4, 4] (7)	[-5, 5] (8)
Fraction voted for SOP	0.0087**	0.0145**	0.0187***	0.0185**	0.0084*	0.0131**	0.0170**	0.0174**
	(.041)	(.017)	(.007)	(.014)	(.069)	(.040)	(.030)	(.053)
Average support for directors					0.0051	0.0098	0.0124	0.0102
					(.477)	(.339)	(.290)	(.423)
Constant	-0.0071*	-0.0119**	-0.0164**	-0.0166**	-0.0105	-0.0187*	-0.0238**	-0.0215*
	(.068)	(.034)	(.010)	(.017)	(.116)	(.053)	(.031)	(.071)
N	6,253	6,253	6,252	6,251	6,240	6,240	6,239	6,238

Table 6: **SOP votes cast by mutual funds**

This table reports regressions at the fund-company-year level for the 2011-2013 period. The dependent variable is a dummy that equals one if the fund voted in support of SOP. The regressions include year and Fama-French 48 industry fixed effects. Errors are clustered at the fund level. P-values are reported in parentheses. *, **, and *** indicate p<.05, p<.01, and p<.001, respectively.

	Fund voted for SOP						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fund's portfolio weight (as a fraction)	0.8098***	17.6285***	1.8001***	0.3837***	0.3221***	0.8556***	0.4116***
	(.000)	(.000)	(.000)	(.001)	(.003)	(.000)	(.000)
Fraction of company's shares held by fund	0.3238***	10.1304*	0.7843***	0.1701	0.0772	0.3268***	0.1222
	(.003)	(.066)	(.002)	(.343)	(.665)	(.003)	(.487)
Institution's portfolio weight (as a fraction)				1.9838***	1.8965***		2.1321***
				(.000)	(.000)		(.000)
Fraction of company's shares held by institution				0.2140***	0.2373***		0.2511***
				(.002)	(.001)		(.000)
Fund's portfolio weight times abnormal return						-1.4431***	-1.4386***
						(.000)	(.000)
Fraction of company held by fund times abnormal return						0.3318	0.9544***
						(.131)	(.000)
Institution's portfolio weight times abnormal return							-3.2622***
							(.002)
Fraction of company held by institution times abnormal return							-0.4755***
							(.000)
Fraction of shares held by blockholders	-0.0279***	-0.4335***	-0.0338***	-0.0222***	-0.0098	-0.0273***	-0.0214***
	(.000)	(.000)	(.000)	(.000)	(.288)	(.000)	(.000)
Fraction of shares held by executives	-0.0306***	-0.2035*	-0.0420***	-0.0268***	-0.0534**	-0.0309***	-0.0279***
	(.000)	(.084)	(.000)	(.000)	(.046)	(.000)	(.000)
Total compensation of CEO t-1 (in $Millions)	-0.0031***	-0.0547***	-0.0030***	-0.0029***	-0.0034***	-0.0031***	-0.0029***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
ROA of company t-1	0.0046	0.1642***	0.0046	0.0027	-0.0011	0.0045	0.0023
	(.139)	(.001)	(.202)	(.362)	(.913)	(.148)	(.438)
Firm abnormal return	0.0152***	0.3100***	0.0165***	0.0096***	0.0088***	0.0181***	0.0310***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Market capitalization (in $Millions)	0.0001***	0.0021***	0	0.0001*	-0.0004**	0.0001***	0
	(.004)	(.000)	(.713)	(.064)	(.012)	(.009)	(.208)
Fraction of shares held by institutions	-0.0110*	0.0261	0.0104	-0.0166**	-0.0104	-0.0118*	-0.0188***
	(.099)	(.409)	(.275)	(.014)	(.598)	(.073)	(.005)
CEO tenure (years)	-0.0001	-0.0038**	0	-0.0001*	0	-0.0001	-0.0002*
	(.422)	(.022)	(.586)	(.054)	(.691)	(.416)	(.053)
CEO age (years)	-0.0006***	-0.0168***	-0.0008***	-0.0006***	0.0012***	-0.0006***	-0.0006***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Annual net flow of fund	-0.0111	-0.4876**	-0.0043	-0.0122*	-0.0111	-0.0107	-0.0117
	(.156)	(.031)	(.798)	(.092)	(.116)	(.173)	(.105)
Expense ratio (weighted average of share classes)	0.911	52.725	-12.9671***	1.9146	1.3417	0.8988	1.8667
	(.698)	(.588)	(.000)	(.488)	(.605)	(.701)	(.490)

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	Fund voted for SOP						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Turnover ratio (weighted average)	0.0061*	0.1856**	0.0623***	0.0079**	0.0077**	0.0060*	0.0077**
	(.094)	(.023)	(.001)	(.012)	(.015)	(.095)	(.013)
Total net assets managed by fund (in thousand $)	0.0004	0.0207	-0.0003	0.0007*	0.0007*	0.0004	0.0007*
	(.309)	(.117)	(.209)	(.058)	(.084)	(.302)	(.053)
Number of funds voting on proposal	0.0061***	0.2479***	0.0099***	0.0033	0.0104***	0.0064***	0.0039
	(.000)	(.000)	(.000)	(.177)	(.000)	(.000)	(.101)
Total assets managed by institution (in $Trillions)				-0.0904***	-0.1309***		-0.0904***
				(.001)	(.000)		(.001)
Number of institutions voting on proposal				0.0003***	-0.0003*		0.0003***
				(.002)	(.066)		(.003)
ISS recommended voting for SOP	0.4319***	4.5807***	0.4317***	0.4185***	0.3939***	0.4320***	0.4189***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Type of regression	OLS	Logit	OLS	OLS	OLS	OLS	OLS
Fund fixed effect	Yes	Yes	No	Yes	Yes	Yes	Yes
Company fixed effect	No	No	No	No	Yes	No	No
Year and industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.43	0	0.31	0.443	0.483	0.43	0.443
N	181,341	119,206	181,341	153,387	153,390	181,341	153,387

Table 7: **Subsets**

This table reports OLS regressions at the fund-company-year level for the 2011-2013 period. The dependent variable is a dummy that equals one if the fund voted in support of SOP. This table includes, but does not report, all control variables included in model 5 of Table 6. The regressions include year and Fama-French 48 industry fixed effects. Errors are clustered at the fund level. P-values are reported in parentheses. *, **, and *** indicate p<.05, p<.01, and p<.001, respectively.

	Fund voted for SOP					
	(1)	(2)	(3)	(4)	(5)	(6)
Institution's portfolio weight (as a fraction)	7.880***	0.536**	3.182**	1.804***	1.340***	2.895*
	(.000)	(.040)	(.014)	(.000)	(.001)	(.065)
Fraction of company's shares held by institution	1.092***	0.157***	0.230***	0.435***	0.436***	0.219
	(.000)	(.004)	(.004)	(.000)	(.000)	(.174)
Fund's portfolio weight (as a fraction)	0.689	0.035	0.557	0.205	0.393**	0.546*
	(.157)	(.624)	(.137)	(.119)	(.012)	(.067)
Fraction of company's shares held by fund	-0.34	0.252**	0.278	0.008	0.0120	-0.46
	(.512)	(.049)	(.128)	(.982)	(.944)	(.318)
Fraction of shares held by blockholders	-0.025	-0.008***	-0.026***	-0.018**	-0.028***	-0.007
	(.210)	(.004)	(.000)	(.041)	(.002)	(.432)
Fraction of shares held by executives	0.024	-0.012***	-0.008	-0.041***	-0.0090	-0.026***
	(.298)	(.001)	(.204)	(.000)	(.437)	(.001)
Number of funds voting on proposal	0.054***	0.003***	0.019***	-0.003	0.007***	0.007
	(.000)	(.002)	(.000)	(.158)	(.003)	(.157)
Total assets managed by institution (in $Trillions)	-0.662***	-0.033*	-0.143***	-0.092***	-0.162***	-0.066
	(.000)	(.084)	(.000)	(.001)	(.000)	(.128)
Number of institutions voting on proposal	0	0	-0.001***	0.001***	0.0000	0.000*
	(.498)	(.954)	(.000)	(.000)	(.512)	(.094)
Total compensation of CEO t-1 (in $Millions)	-0.008***	-0.002***	-0.006***	-0.003***	-0.003***	-0.004***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
ROA of company t-1	-0.105***	0.012***	0.001	-0.007	0.018*	0.002
	(.000)	(.000)	(.613)	(.402)	(.074)	(.663)
Firm abnormal return	0.029*	0.007***	0.021***	0.063***	0.032***	0.025**
	(.075)	(.009)	(.000)	(.000)	(.000)	(.017)
ISS recommended voting for SOP			0.450***	0.337***	0.353***	0.483***
			(.000)	(.000)	(.000)	(.000)
Subset	ISS recommend against	ISS recommend for	Market cap. <= $10 Billion	Market cap. > $10 Billion	Actively managed funds	Index funds
Year and industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Fund fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.485	0.467	0.468	0.413	0.488	0.425
N	17,976	135,411	101,784	51,603	57,275	42,553

Table 8: **Aggregate SOP vote outcomes**

This table reports OLS regressions at the company-year level for the 2011-2013 period. The dependent variable is the fraction of votes cast in support of SOP. The regressions include year and Fama-French 48 industry fixed effects. Errors are clustered at the company level. P-values are reported in parentheses. *, **, and *** indicate p<.05, p<.01, and p<.001, respectively.

	Fraction voted for SOP			
	(1)	(2)	(3)	(4)
Fraction of shares held by blockholders	0.0519*** (.000)	0.0552*** (.000)	0.0579*** (.000)	0.1054*** (.000)
Fraction of shares held by executives	0.1558*** (.000)	0.1621*** (.000)	0.1558*** (.000)	0.1621*** (.000)
Total compensation of CEO t-1 (in $Millions)	-0.0016** (.029)			
Average compensation of 4 executives t-1 (in $Millions)		-0.0056*** (.001)		
Predicted CEO compensation t-1			-0.0241*** (.007)	
Residual CEO compensation t-1			-0.0016** (.029)	
Predicted 4 executives' compensation t-1				-0.1844*** (.009)
Residual 4 executives' compensation t-1				-0.0056*** (.001)
ROA of company t-1	0.0123** (.039)	0.0117** (.037)	0.0192*** (.003)	0.0072 (.221)
Abnormal return	0.0256*** (.000)	0.0250*** (.000)	0.0186*** (.000)	-0.0023 (.833)
Market cap in $Billions	0.0002* (.094)	0.0002** (.032)	0.0021*** (.007)	0.0049*** (.009)
Fraction of shares held by institutions	-0.0001 (.558)	-0.0001 (.419)	0.0003 (.159)	-0.0009*** (.009)
Number of institutional shareholders	0.0000* (.074)	0.0000*** (.001)	0.0003*** (.005)	0.0009*** (.008)
CEO tenure (years)	-0.0001 (.446)	-0.0001 (.354)	0.0005* (.063)	0.0007** (.046)
CEO age (years)	-0.0006*** (.010)	-0.0006** (.010)	-0.0004 (.108)	-0.0001 (.817)
ISS recommended to vote for SOP	0.2831*** (.000)	0.2841*** (.000)	0.2831*** (.000)	0.2841*** (.000)
Year and industry fixed effects	Yes	Yes	Yes	Yes
R-squared	0.601	0.599	0.601	0.599
N	4,612	4,610	4,612	4,610

Table 9: **Holdings around the Russell 1000-2000 discontinuity**

This table reports OLS 2sls models for the 2011-2013 period. Models 1-2 report an analysis at the institution-company-year level, while the analysis in models 3-4 is at the fund-company-year level. Models 1 and 3 instrument for the "Fraction of company's shares held by institution", and "Fraction of company's shares held by fund", respectively, using the discontinuity of the Russell 1000 and Russell 2000 indexes. We define the following first stage regression for models 1 and 3, which is limited to the 250 companies on both sides of the Russell 1000-2000 cutoff, as ranked by the Russell portfolio weights:

$$\%\ company\ held_{ict} = \alpha + \beta * R2000_{ct} + \gamma * Ln(marketcap)^2_{ct} + banding\ controls + other\ controls + u_{ict}$$

$\%\ company\ held_{ict}$ is the predicted percent of company held by institution i in company c in year t. $R2000_{ct}$ is equal to 1 if the company is within the top 250 companies of the Russell 2000 index, and 0 if it is within the bottom 250 companies of the Russell 1000, in year t when the vote is held. "marketcap" is the CRSP marketcap. "Post 2006 Banding controls" are variables used by Appel et al. (2018) to control for the post-2007 Russell banding methodology for classifying companies in the Russell indexes: a dummy for having an end-of-May market capitalization sufficiently close to the cutoff such that the firm will not switch indexes, a dummy for being in the Russell 2000 in the previous year, an interaction variable of the latter two variables, ln(marketcap)^2, and ln(float-adjusted market cap as estimated by Russell). "Other controls" include the Ln(float-adjusted market cap), as defined by Russell, and all control variables included in Table 4 (Panel A). Models 2 and 4 report the second stage of the 2sls analysis. The regressions include year and Fama-French 48 industry fixed effects. Errors are clustered at the company level. P-values are reported in parentheses. *, **, and *** indicate p<.05, p<.01, and p<.001, respectively.

	Fraction of company's shares held by institution (1)	Weighted average of the institution's SOP support rate (2)	Fraction of company's shares held by fund (3)	Fund voted for SOP (4)
Russell 2000	0.0023*** (.000)		0.0002*** (.002)	
Fraction of company's shares held by institution		5.5339* (.095)		
Fraction of company's shares held by fund				24.2601** (.011)
Stage	First	Second	First	Second
Bandwidth	250 companies on each side of the Russell 1000-2000 cutoff			
Year and industry FE	Yes	Yes	Yes	Yes
Post 2006 banding variables	Yes	Yes	Yes	Yes
Other controls + ln(marketcap)	Yes	Yes	Yes	Yes
Angrist-Pischke F-test	13.79		21.52	
R-squared (centered)		0.1486		0.1315
N	6,579	6,579	32,344	32,344

Appendix A: Procedures followed to match ISS voting analytics dataset to other datasets

In this appendix we explain how we match the ISS voting analytics dataset to three datasets: CRSP mutual fund dataset, Thomson Reuters S12 Database on mutual fund holdings, and Thomson s-34 dataset on the institutional 13-f filers.

CRSP mutual funds dataset. Unfortunately, the ISS voting analytics dataset on mutual fund's votes does not include conventional identifiers for mutual funds. However, ISS does provide links to the N-PX form which include, in virtually all cases, a fund family CIK code and a mutual fund "seriesid" identifier.[31] Reporting a fund ticker in the N-PX filing is voluntary, and most mutual funds do not do so. To increase the number of funds for which we are able to obtain a ticker, we follow the procedure used by Matvos and Ostrovsky (2008, see footnotes 6 and 7), and Iliev and Lowry (2015), and match the fund's seriesid to at least one of the tickers reported in the company's filing section of the Edgar database.[32]

To further increase the number of mutual funds for which we are able to match a ticker, we manually search in several additional databases for a ticker that is associated with the fund name and the institution's name, as reported in the N-PX filing. These additional databases include the CRSP Mutual Fund Database, Thomson Reuters Database on mutual fund holdings S12, Factset, and general searches on the internet.

Using all these approaches, we are able to match 40.2% of the SOP vote-observations included in the Mutual Funds ISS Voting Analytics database to a fund ticker. However, for a given company in a given year, the average aggregate holdings of mutual funds that we are able to match to a ticker amount to 19.9% of the outstanding stocks. We estimate in Table 1 that 27.5% of the outstanding stocks are held, on average, by mutual funds. Hence, we are able to match voting corresponding to the holdings of 72% (19.9%/27.5%) of the stocks held by mutual funds. Finally, we search in the CRSP mutual funds dataset for each ticker we have found for each fund included in the ISS voting analytics dataset, in a given quarter. If the quarter and the ticker match, we record the corresponding crsp_portno, which is the fund identifier in the CRSP mutual funds dataset.

[31] The Seriesid identifier is assigned by the SEC, and uniquely identifies a mutual fund. To the best of our knowledge, the Seriesid identifier is not included in any of the mutual fund databases commonly available to academics.

[32] In Edgar, https://www.sec.gov/edgar/searchedgar/companysearch.html, one may type a seriesid in the "Fast Search" box, which leads to the hyperlink "List all Funds and Classes/Contracts for…" which details the available tickers of all funds branching from the seriesid.

Thomson Reuters S12 mutual funds holdings. We match each ticker we have identified for each of the funds included in the ISS voting analytics dataset in a given quarter to a WFICN (using the MFLINK table available from Wharton Research Data Services), and then to the Thomson fund identifier–"fundno."

Thomson s-34 institutionals holdings. For each fund, we map the Thomson fund identifier–"fundno," to a Thomson institution identifier ("mgrno"), using the S12type5 file from WRDS. The S12type5 file mapping is not always updated in cases in which one institution acquires another institution. Accordingly, we manually examine, for each institution, whether the latter is the case in the 2011-2013 period we study. In the cases where a fund is held by an institution that is acquired by another institution, we identify the correct institution by searching for the name of the fund in Form N-SAR. This form identifies the primary advisor (i.e., institution) of each fund.

Appendix B: Shareholder Composition and a Company's Response to SOP

We have documented that shareholder composition is related to the votes shareholders cast. In this section, we address the question of whether shareholder composition is related to whether and how a company responds to the SOP vote.[33] Ertimur, Ferri, and Stubben highlight that a company's response in practice ("implementation") to a vote, is the measure that captures whether a non-binding vote is effective.

To measure the implementation of the nonbinding SOP vote, we focus on immediate actions that the management/board of a company can take to demonstrate to shareholders that the company is responding to the shareholder criticism reflected in low SOP support rates. Accordingly, we examine the relation between SOP and subsequent: (1) CEO turnover within 12 months of the voting date; (2) cherry-picking of peer companies used to determine executive compensation; and (3) change in the growth rate of the residual compensation awarded to the CEO.[34]

We emphasize that the relations we examine may be endogenous, since other factors may affect SOP and the above-mentioned outcomes. For example, performance may affect both the SOP vote and CEO turnover. Nevertheless, the SOP vote reflects the extent to which shareholders are satisfied. Examining if low support rates for SOP are followed by CEO turnover demonstrates whether the extent to which shareholders are dissatisfied, as reflected in the SOP vote, is associated with a change occurring in company leadership, or whether shareholder opinions are ignored by the board. Moreover, as we shall demonstrate, changes in the outcomes we examine are not associated with directors' votes, which are the only other regular vote that takes place which may provide a governance opportunity.

I. CEO Turnover

We examine if low support rates for the SOP vote are associated with CEO turnover. Indeed, in model 1 of Table I we find that companies that received low support rates on SOP, are significantly more likely to experience CEO turnover within 12 months of the voting day (the dependent variable

[33] Previous studies have found that non-binding SOP proposals are generally perceived as value enhancing. For example, Cuñat, Gine and Guadalupe (2016) find that voluntary adoption of SOP increases the market value and profitability of a company. Ferri and Maber (2013) and Iliev and Vitanova (2018) document that the UK and American markets, respectively, reacted positively to the requirement to comply with SOP. Correa and Lel (2016) document that companies in countries that have adopted a SOP vote have experienced a slower increase in CEO compensation, and a higher pay for performance sensitivity compared to companies in countries that did not adopt a SOP vote.

[34] Some studies report that a 30% opposition rate is sufficient to nudge a company to respond to a SOP vote (Ertimur, Ferri, and Oesch, 2013). Other studies argue that a 50% threshold is the point at which response rates jump (Cuñat, Gine, and Guadalupe, 2012). In unreported specifications and graphs, we examine both of these thresholds, but find that generally, a linear relation exists between the SOP support rates and the three outcome variables we examine.

in Table I equals one if the latter is the case, and zero otherwise). To understand how responsiveness to SOP differs, given the shareholder structure, we break the data into subsets partitioned by shareholder structure. We hypothesize that, when no blockholder exists, companies will not respond to the SOP vote. Indeed, we do not find a relation between the SOP vote outcome and CEO turnover in companies without a blockholder (Table I, model 2).

We follow previous studies (Morck, Shleifer, and Vishny, 1988; McConnell and Servaes 1990; Holderness, Kroszner, and Sheehan, 1999; Himmelberg, Hubbard, and Palia, 1999), which have distinguished between companies in which the executives hold at least 5% of the shares, versus less than that threshold. The notion of these studies is that, in companies in which executives hold at least 5% of the shares, the executives may have substantial power. Therefore, we do not expect to observe a response to SOP in these companies. Accordingly, in model 3, we include only companies in which executives aggregately hold a block equal to, or exceeding 5%.[35] Indeed, we find that such companies are less likely to experience CEO turnover following a SOP vote with low support rates.

However, as predicted, we do find that, in companies that have a non-insider block (and no block held by insiders), CEO turnover is significantly more likely to occur following a SOP vote that received low support rates (model 4). Hence, the results imply that companies are most likely to demonstrate responsiveness to shareholder satisfaction, as reflected in the SOP vote, when a non-insider blockholder is present. If we view the SOP vote as conveying "soft information" regarding the CEO's ability, these results are consistent with Cornelli, Kominek, and Ljungqvist (2013) who show that in companies with large blockholders, boards fire CEOs particularly as a consequence of such soft information they have gathered.

To rule out the possibility that CEO turnover is the outcome of the other major vote held annually—director's election (Cai, Garner and Walking, 2009), in Regressions 5 and 6, we repeat regressions 1 and 4, respectively, but include the control variable "average support for directors", which captures the average support rates directors received in the same year. As these specifications document, the latter variable is insignificant, while the fraction that voted in support of SOP remains significant, further emphasizing the link between SOP vote and CEO turnover.

II. Peer-companies

[35] As reported in the holdings of "all current executive officers and directors as a group" item in the proxy statement.

In this section, we examine whether, in the year following the SOP vote, changes are observed in the peer companies selected for benchmarking and determining the compensation awarded to the named executives. Since 2006, the SEC requires companies to disclose which peer-companies they use to benchmark and determine the compensation of their named executives. Faulkender and Yang (2010), Bizjak, Lemmon, and Nguyen (2011), and Faulkender and Yang (2012) find that companies generally choose peer-companies that pay relatively large compensation to the CEO. Perhaps the SOP vote offers an opportunity to govern such cherry-picking of peer-companies.

We first examine whether companies add or exclude peer companies in the year following the SOP vote, given the SOP outcomes. On average, companies choose 19 peer-companies in a given year. We find that following low SOP support rates, companies are significantly more likely to add new peer-companies (Table II, model 1), but not significantly likely to exclude existing ones (Table II, model 2). Accordingly, in subsequent regressions in Table II, we focus on the new peer-companies added in the year following the vote.

Companies can cherry-pick peer-companies that allow inflating compensation by picking, for example, larger peer-companies from better paying industries. To estimate the extent an inflated peer-company is selected, we use the difference between the predicted compensation of the peer company minus the predicted compensation of the "origin" company (i.e., the company for which a SOP vote is held). The predicted compensation is calculated using the Core, Guay, and Larcker (2008) methodology, as specified in the Glossary of Variables.

Because the predicted compensation takes into account the factors that should affect the compensation awarded, the larger the difference between the predicted compensation of the peer company minus the predicted compensation of the "origin" company, the larger the extent the origin company is picking inflated peer-companies that are not similar to the origin company.

In Regressions 3-8 of Table II, our dependent variable is "new peer inflation below that of prior year." This variable is equal to one if the predicted compensation of the new peer is smaller than the average predicted compensation of the recurring peer companies (i.e., those picked both in the SOP vote and in the year following the SOP vote). Indeed, model 3 of Table II, which includes all observations, documents that companies with low SOP support rates are more likely to pick more modest peer companies. This finding is in line with Ertimur, Ferri, and Oesch (2016), who document that 55% of the companies who received a negative ISS recommendation on SOP, were likely to report in the proxy of the year following the SOP vote, that they restricted their compensation.

In model 4, which is restricted to observations of companies without a blockholder, we do

not find that low SOP support rates decrease inflated peer picking. Similarly, in model 5, which includes only companies in which executives aggregately hold a block equal to or exceeding 5%, we do not find that more modest peer-companies are chosen following a SOP vote which garnered low support rates. In model 6, we include only observations pertaining to companies that have a non-insider blockholder. Similar to the results in the previous section, we observe that following a SOP vote that yielded low support rates, companies with a non-insider blockholder are likely to pick more reasonable peer-companies. Put differently, when a non-insider block is present, companies seem to respond to a low-support-SOP vote by picking better matching peer-companies.

Models 7 and 8 repeat models 3 and 6, respectively, but include the control variable "average support for directors". Once again, we find that the latter variable is insignificant, indicating that selecting more modest peer companies is not related to director's elections; however, the fraction that voted in support of SOP remains significant in these regressions, further supporting that robustness of the relation between the SOP vote and new peer companies selected.

III. Compensation

In unreported specifications, we find that companies that receive low SOP support rates still exhibit, in the year following the SOP vote, significantly larger total compensation and significantly larger residual compensation (as defined in the Glossary of Variables). This finding applies also to the companies with a non-insider blockholder. This raises the question of whether the SOP vote is able to restrain, at least to some extent, the compensation awarded.

To address this question, in Table III, we report a diff-in-diff regression in which the dependent variable is the "percentage of change in residual compensation." This variable essentially captures the change in the growth rate of the residual compensation (as defined in the Glossary of Variables) following the SOP vote.[36] Model 1 of Table III reports that, indeed, companies with low SOP support rates experience a decrease in the "percentage of change in residual compensation" in the year following the SOP vote.

Similar to the results above, following a SOP vote with low support rates, we do not observe a significant decline in the "percentage of change in residual compensation" for companies that do not have a blockholder (model 2), or have an inside blockholder (model 3). However, model 4

[36] We compute the "change in residual compensation" variable by first calculating the percentage of change in the residual compensation awarded between the year following the SOP vote and the SOP vote year, and subtracting from this figure the percentage of change in the residual compensation awarded between the SOP vote year and the year prior to the vote.

documents that companies with a non-insider blockholder are significantly more likely to experience a decrease in the "percentage of change in residual compensation" following low SOP support rates. Hence, although SOP does not catalyze companies to set lower compensation and smaller residual compensation compared to other companies, SOP does seem to restrain the growth rate of the residual compensation when a non-insider blockholder is present.

Regressions 5 and 6 repeat regressions 1 and 4, respectively, but include the control variable "average support for directors". These regressions further demonstrate that the fraction of votes cast in support of SOP, rather than the fraction of votes cast in support of directors, is particularly related to the decline of the residual compensation.

The finding that companies tame residual compensation following a SOP vote with low support rates is consistent with Ferri and Maber (2013), who document that, in the UK, companies that received low support rates for the SOP vote reduced their severance pay and removed provisions allowing to reevaluate compensation when original targets were not met.

To summarize, we have documented in the paper that small shareholders are more likely to oppose management on SOP. In this section, consistent with Kandel, Massa, and Simonov (2011), we find that the actions taken by many small shareholders, in our case, voting against SOP, can have a disciplinary force on management, by pressuring the company to respond to the criticism expressed via the SOP vote. However, in the spirit of Levit and Malenko (2011), we find that management is more likely to respond to a non-binding vote if a blockholder who can discipline management is present, which in our case is a non-insider block.

Table I: **The SOP vote and CEO turnover**

This table reports OLS regressions at the company-year level for the 2011-2013 period. The dependent variable in all three panels equals one if CEO turnover occurred within 12 months of the vote, and zero otherwise. The primary variable of interest is "Fraction voted for SOP." All regressions include fixed year and fixed Fama-French 48 industry effect. Errors are clustered at the company level. P-values are reported in parentheses. *, **, and *** indicate p<.05, p<.01, and p<.001, respectively.

	Was CEO replaced within 12 months following the vote?					
	(1)	(2)	(3)	(4)	(5)	(6)
Fraction voted for SOP	-0.1156*** (.001)	0.0802 (.177)	-0.0765 (.127)	-0.1572*** (.002)	-0.0842*** (.006)	-0.1318*** (.004)
Average support for directors					-0.0196 (.659)	-0.0049 (.943)
Fraction of shares held by blockholders	-0.0002 (.992)	-2.1349 (.161)	-0.033 (.290)	0.0329 (.208)	-0.0124 (.499)	0.0198 (.431)
Fraction of shares held by executives	0.0345 (.129)	-0.0007 (.973)	0.0331 (.270)	-0.7259*** (.008)	0.0295 (.187)	-0.7086*** (.007)
ROA of company t-1	-0.0018 (.780)	-0.0043 (.818)	0.0042 (.500)	-0.032 (.176)	-0.0004 (.950)	-0.0267 (.230)
Abnormal return	-0.0332*** (.000)	0.0097 (.585)	-0.0305*** (.000)	-0.0370*** (.001)	-0.0361*** (.000)	-0.0404*** (.000)
Market capitalization (in $Millions)	0 (.877)	0 (.999)	0 (.110)	0 (.942)	0 (.883)	0 (.992)
CEO tenure (years)	-0.0003 (.322)	0.0014 (.175)	-0.0004 (.178)	0.0002 (.740)	-0.0002 (.487)	0.0004 (.497)
CEO age (years)	0.0015*** (.001)	0.0029* (.052)	0.0012** (.048)	0.0020*** (.004)	0.0014*** (.000)	0.0016*** (.009)
Companies included	All	No blockholders	Insiders block	Non-insider block	All	Non-insider block
Company and industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.016	0.446	0.008	0.026	0.016	0.024
N	5,194	250	2,344	2,783	5,169	2,764

Table II: **The SOP vote and subsequent changes in peer-companies**

This table reports OLS regressions at the peer-company year level for the 2011-2013 period. The dependent variable: in model 1 is equal to one if a peer-company was added and zero otherwise, in model 2 is equal to one if a peer-company was excluded and zero otherwise, and in models 3-8 equals one if a new peer selected in the year following the SOP vote is more "modest" than the peers selected in the year of the SOP vote. Specifically, this variable is equal to one if the predicted compensation of a new peer is smaller than the average predicted compensation of the recurring peer companies (i.e., those picked both in the SOP vote and in the year following the SOP vote). The primary variable of interest is "Fraction voted for SOP." All regressions include fixed year and fixed Fama-French 48 industry effect. Errors are clustered at the company level. P-values are reported in parentheses. *, **, and *** indicate p<.05, p<.01, and p<.001, respectively.

	New peer added	Peer excluded	Excess compensation of new peer above average peer excess compensation					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Fraction voted for SOP	-0.1079**		-0.1260**	-0.3275	-0.0714	-0.1615**	-0.1277**	-0.1922**
	(.032)		(.036)	(.646)	(.447)	(.039)	(.039)	(.020)
Average support for directors							0.034	0.195
							(.803)	(.357)
Fraction of shares held by blockholders	0.0171	0.0782*	-0.0136		0.0793	-0.0397	-0.0195	-0.0429
	(.681)	(.078)	(.818)		(.343)	(.663)	(.743)	(.639)
Fraction of shares held by executives	0.0762	0.0736	0.0939	0.2239	0.1682*	0.0821	0.0901	0.157
	(.157)	(.313)	(.196)	(.289)	(.057)	(.935)	(.216)	(.878)
ROA of company t-1	-0.0387	-0.0194	0.0075	0.3991	0.0189	0.061	0.0072	0.0615
	(.423)	(.496)	(.813)	(.174)	(.608)	(.417)	(.822)	(.417)
Abnormal return	0.0261	0.0455**	0.0023	0.0246	0.0115	0.0381	0.0028	0.0356
	(.191)	(.023)	(.916)	(.898)	(.624)	(.341)	(.899)	(.378)
Market capitalization (in $Millions)	-0.0000***	-0.0000*	0	0	0	0	0	0
	(.000)	(.067)	(.228)	(.909)	(.934)	(.181)	(.235)	(.183)
CEO tenure (years)	-0.0008	-0.0003	-0.0005	-0.0019	0.0012	-0.0024	-0.0005	-0.0024
	(.203)	(.677)	(.685)	(.852)	(.494)	(.202)	(.715)	(.220)
CEO age (years)	-0.0020**	0.0011	0.0034**	-0.0093	0.0041**	0.0013	0.0035***	0.0015
	(.042)	(.238)	(.011)	(.225)	(.014)	(.510)	(.010)	(.466)
Type of companies included	All	All	All	No blockholders	Insiders block	Non-insider block	All	Non-insider block
Company and industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.031	0.489	0.022	0.035	0.032	0.034	0.022	0.034
N	43,270	40,134	9,023	361	4,382	4,497	8,990	4,489

Table III: **The SOP vote and the percentage of change in residual compensation**

This table reports OLS regressions at the company-year level for the 2011-2013 period. The dependent variable in these regressions is the "percentage of change in residual compensation", which captures the change in the growth rate of the residual compensation. This variable is computed by first calculating the percentages of change in the residual compensation awarded between the year following the SOP vote and the SOP vote year, and subtracting from this figure the percentages of change in the residual compensation awarded between the year of the vote and the year prior the vote. The primary variable of interest is "Fraction voted for SOP." All regressions include fixed year and fixed Fama-French 48 industry effect. Errors are clustered at the company level. P-values are reported in parentheses. *, **, and *** indicate p<.05, p<.01, and p<.001, respectively.

	Percentage of change in excess compensation					
	(1)	(2)	(3)	(4)	(5)	(6)
Fraction voted for SOP	11.5350**	21.3774	14.9802	15.1592**	12.0085*	14.5314*
	(.045)	(.865)	(.214)	(.044)	(.075)	(.066)
Average support for directors					-3.4203	4.4059
					(.742)	(.616)
Fraction of shares held by blockholders	0.4187		18.4882	-11.3710**	0.4235	-11.3813**
	(.947)		(.268)	(.011)	(.947)	(.011)
Fraction of shares held by executives	-0.7523	-19.1123	1.8478	-22.7423	-0.7826	-21.1237
	(.775)	(.395)	(.715)	(.595)	(.765)	(.626)
ROA of company t-1	-4.3706	142.596	-5.373	-1.8666	-4.3935	-1.9061
	(.509)	(.519)	(.681)	(.408)	(.510)	(.396)
Abnormal return	-0.2836	-7.0704	0.861	-3.4383	-0.2793	-3.4963
	(.893)	(.587)	(.773)	(.181)	(.895)	(.176)
Market capitalization (in $Millions)	0.000	0.000	0.000	0.000	0.000	0.000
	(.983)	(.831)	(.536)	(.191)	(.995)	(.191)
CEO tenure (years)	0.161	0.0911	0.333	0.0023	0.1585	0.0032
	(.517)	(.804)	(.535)	(.951)	(.513)	(.931)
Type of companies included	All	No blockholders	Insiders block	Non-insider block	All	Non-insider block
Company and industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	-0.012	-0.434	-0.036	0.024	-0.013	0.023
N	2,016	65	782	1,216	2,016	1,216

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