Are ISS Recommendations Informative? Evidence from Assessments of Compensation Practices

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Abstract

Using detailed information from the largest proxy advisor in the U.S., Institutional Shareholder Services (ISS), we examine whether its assessments are able to identify a firm's poor compensation practices as measured by subsequent performance. While prior research provides consistent evidence of an association between shareholder voting outcomes and proxy advisors' Say-on-Pay recommendations, the evidence is mixed over whether their recommendations are informative about the quality of firms' compensation practices. We find that ISS "Against" recommendations and negative assessments are associated with worse future accounting performance, consistent with ISS being able to detect low quality compensation packages. However, workload compression has an effect, as we find that the relation between assessments and future performance only occurs for firms with *non*-December fiscal year-end. This is consistent with resource constraints during the busy proxy season influencing ISS's ability to identify poor compensation practices.

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1. Introduction

Proxy advisors issue recommendations to institutional investors on how to vote on the nomination of board members and other corporate governance issues, such as executive compensation contracting. Research shows that proxy advisors' recommendations have a significant influence on Say-on-Pay voting outcomes (e.g., Ertimur, Ferri and Oesch (2013), Malenko and Shen (2016)) and, consequently, on firm's governance choices (see Copland, Larcker and Tayan (2018) for a review).[1] As a result of their increasing influence on corporate governance practices, these advisors have come under scrutiny recently and have been the subject of Securities and Exchange Commission (SEC) reforms.[2] The demand for proxy advisory services is increasing due to greater institutional ownership, the volume and the complexity of shareholder proposals voted upon, and the greater reliance of institutional investors on proxy advisors to inform them on how to vote on shareholder proposals as a result of the 2003 SEC rule requiring them to disclose their proxy voting policies (see Gramm and Solon (2018), Malenko and Malenko (2019)).[3] Thus proxy advisors are regarded as powerful.

The most influential proxy advisor with the largest market share in the U.S. is Institutional Shareholder Services (ISS) (Choi, Fisch and Kahan, 2009; Alexander, Chen, Seppi and Spatt, 2010). As a consequence of their influence, management and shareholder activists lobby ISS to endorse their respective positions. As mentioned by Delaware's Vice-Chancellor Leo Strine:

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[1] Say-on-Pay is a non-binding advisory vote required with the adoption of the Dodd-Frank Wall Street Reform and Consumer Protection Act, passed in 2010.

[2] In July 2020, the SEC issued final amended rule 34-87457, which requires, among other things, proxy advisors to disclose conflicts of interest, to provide recommendation materials to companies before or at the same time as recommendation are provided to their clients, and to allow clients access to companies' responses to their recommendations. The final rules excluded the proposed provision that companies be allowed to review and comment on recommendations *prior* to publication.

[3] In 2003, the SEC required that mutual funds disclose their proxy voting policies or that they rely on the voting policies developed by an independent party, such as proxy advisors, to fulfill their fiduciary duties. (https://www.sec.gov/rules/final/33-8188.htm).

> *[P]owerful CEOs come on bended knee to Rockville, Maryland, where ISS resides, to persuade the managers of ISS of the merits of their views about issues like proposed mergers, executive compensation, and poison pills. They do so because the CEOs recognize that some institutional investors will simply follow ISS's advice rather than do any thinking of their own.*

ISS's dominant position in the advisory industry and thus the lack of competitive pressure and market discipline can impact the quality of their services. Moreover, ISS could exploit its influential position by issuing negative recommendations so that companies feel compelled to buy its consulting services (Knutson (2018), Hayne and Vance (2019)). Compounding the potential conflicts of interest are concerns that proxy advisors have limited accountability. Proxy advisors do not own equity in the companies in which they provide voting advice, nor do they have any fiduciary duty to the shareholders of those companies.

While some argue that proxy advisors' compensation assessments and voting recommendations are not useful as they induce firms to adopt compensation contracts that reduce shareholder value (Larcker, McCall, and Ormazabal (2015)), research documents strong associations between their recommendations and voting outcomes (for example, Ertimur, Ferri and Oesch (2013), Malenko and Shen (2016)). Continued shareholder reliance on these recommendations appears at odds with the limited evidence that the assessments of proxy advisors reduce shareholder value. We therefore revisit whether ISS voting guidance is informative and examine if ISS "Against" recommendations can identify low quality compensation practices.

A challenge in our research design is defining poor compensation practices. Compensation contracts are multifaceted, complex (level of pay, form of pay, performance measures used, and horizon over which to determine pay), and often idiosyncratic to particular strategic choices of organizations or to CEO abilities, making it difficult for the researcher to define an objective

benchmark for compensation quality.[4] And, ISS recommendations evaluate aspects of compensation practices that are not directly reflected in the level of pay or the components of the compensation contract (e.g. communication practices of compensation committees or policies related to CEO succession and change in control). For these reasons, we take a different approach. Assuming that firm performance is influenced by the quality of its compensation practices (for example, high pay-performance sensitivity encourages the CEO to take actions that improve future performance), we expect that firms with low quality compensation practices exhibit lower industry-adjusted performance. While we examine stock returns in preliminary tests and find inconclusive results, as we describe in greater detail later, we choose industry-adjusted *accounting* performance as our main measure to avoid confounding problems that *stock returns* raise. Investors might react to the issuance of an unfavorable recommendation (see Brochet, Ferri and Miller, 2020) rather than to the underlying compensation quality. In addition, total shareholder return is a metric often included in compensation contracts and one that ISS focuses on; it is possible that ISS recommendations might be endogenously related to firms' market performance.

We obtain granular data on ISS ratings of individual executive pay practices (i.e. "Levels of Concern") and the ultimate Say-on-Pay (SOP) recommendations. Using these data, we examine the association between the compensation assessments and future accounting performance. Under the assumption that accounting performance is influenced by the quality of the compensation

[4] For example, researchers estimate "excess" compensation as the positive residual value from regressions of compensation as a function of economic and market characteristics for large samples of firms. In our context, using this measure would be challenging for at least two reasons. First, pay level is just one component of compensation quality taken into consideration by ISS. Second, what appears to be "excess" compensation might reflect appropriate compensation for more talented executives or outstanding levels of goal achievement that are not captured by regression models due to measurement error (omitted variables). Despite these limitations, in additional analyses in Section 5.1, we examine whether ISS "Against" recommendations and higher levels of concerns are associated with proxies for poor pay practices to help triangulate our findings.

practices, an association between ISS negative assessments and lower accounting performance suggests that ISS evaluations identify low quality compensation practices.

Our research design also considers whether ISS' effectiveness at identifying lower quality compensation practices is influenced by resource constraints. Research documents that workload compression affects financial statement evaluation (see, for example, Gunny and Hermis, 2020) Further, Hayne and Vance (2019) highlights operational constraints faced by proxy advisory firms during the busy season (December fiscal year-ends). As ISS hires temporary, and potentially less experienced analysts, lower quality assessments can be expected given the complexity of compensation packages (Doyle, 2018). Thus, in addition to our pooled tests, we examine whether the quality of assessments for December fiscal year-end (FYE) firms (the majority of ISS's coverage) differs from non-December FYE firms.

Our sample includes data on ISS assessments for firms in the Russell 3000 from 2010 to 2016. Despite the challenges, we first examine cumulative abnormal returns over the 13-day window prior to the annual meeting, when ISS Say-on-pay voting recommendations become available to investors.[5] We find that non-December FYE firms receiving an "Against" recommendation have lower returns, relative to those for which the ISS recommendation is "For", suggesting that the market perceives ISS assessments to be informative of low quality compensation packages in the off-season. In contrast, December FYE firms receiving an "Against" recommendation surprisingly exhibit *higher* returns, relative to those receiving a "For" recommendation. One interpretation is that investors perceive ISS assessments to be informative

[5] ISS's policy is to make recommendations available to shareholders between 30 and 13 days before the annual meeting. We use the 13-day window prior to guarantee that information is available to investors. Shareholders can incorporate this information any time up to the meeting date. In robustness tests, we use the 30-day window and the 30 to 13-day window before the annual meeting.

and they expect firms to take actions to improve the quality of the pay packages. A challenge with the interpretation of these conflicting market reactions to ISS' recommendations as a signal of the quality of compensation packages is that it requires an assumption that investors are informed about the quality of those packages; if investors rely on ISS to inform them of the quality of compensation packages, the market reaction is not an independent signal.

We then use future industry-adjusted *accounting* performance as a proxy for the consequence of low-quality packages and find that ISS assessments identifying low quality compensation practices are associated with lower, but not statistically significant, future industry-adjusted accounting performance. After considering workload compression, we find that ISS' ability to identify poor compensation practices resides only in the subsample of non-December FYE firms, consistent with resource constraints during the December FYE proxy season influencing the quality of their recommendations.

Although the literature documents a strong association between ISS recommendations and SOP voting outcomes, there is not a one-for-one correspondence between the recommendation and the passage of the SOP ballot item.[6] We exploit this discordance to evaluate whether shareholders perform better evaluations of pay practices relative to ISS using two proxies for shareholders' assessments – SOP voting outcomes and large mutual fund companies' SOP votes. We find that ISS unfavorable assessments are consistently associated with poor performance, independent of the SOP vote outcome. That is, even when shareholders pass SOP, a negative recommendation by ISS is associated with lower levels of performance that are indistinguishable from cases where the SOP vote did not pass. As before, this result is strongest for the non-December fiscal year-end firms. However, examining large investor voting positions, we find evidence that the largest three

[6] Many investors use proxy advisors' recommendation as one of the inputs into their own evaluation of the firm's compensation practices (Hayne and Vance, 2019).

fund companies (BlackRock, Vanguard and State Street Global Advisors) with resources to perform their own analyses of CEO compensation plans are more effective than ISS at identifying poor compensation practices. When at least two of the three votes against a pay package, despite an ISS "For" recommendation, future performance is lower. Interestingly, these investors do not appear to suffer from workload compression.

In additional analyses, we validate two important assumptions in our research. We first document that proxies for low quality compensation are associated with lower future abnormal ROA. Second, we show that these proxies are associated with negative ISS assessments. In addition, we subject our results to a variety of robustness tests, including entropy balanced matching between firms with "Against" and "For" recommendations and placebo tests randomly assigning "Against" recommendations to our firm/year observations. We continue to find that ISS "Against" recommendations are associated with lower future abnormal ROA using the entropy balanced matching, but not (as expected) when using the placebo tests. Finally, we perform additional analyses to assuage concerns that our results may be driven by ISS basing "Against" recommendations on poor performance.

Collectively, our study contributes new evidence to the literature and informs the debate over the concerns about the activities of proxy advisors. Our results suggest that ISS evaluations can identify low quality compensation practices which are, in turn, reflected in future firm performance. Our findings that these results only hold for firms with "off-season" fiscal year-ends suggest that ISS assessments are of higher quality when the proxy advisor can devote more resources to the analysis of firm disclosures. Therefore, our study also contributes to the literature examining how busyness can influence the quality of services provided. Furthermore, building on studies that document independent research by institutional investors (Iliev, Kalodimos, and

Lowry (2019)), we provide evidence that those efforts are fruitful. Some institutions can provide incrementally better assessments than ISS.

2. Background and Research Questions

Proxy advisors sell services to investors including analyses of firms' corporate governance, voting guidelines, and recommendations on how to vote on ballot items at annual meetings. The rise of investor activism, the recognition of corporate governance as a major corporate risk, and the 2003 SEC rule requiring mutual investors to disclose their proxy voting policies, has led to an increase in the demand for proxy advisor's services (Barr and Burton, 2007). In essence, proxy advisors act as information intermediaries, synthesizing information from public sources for investors (Ertimur et al. 2013). However, their motives for recommendations have come under scrutiny (e.g., Rose, 2010 and Li, 2018).[7] As ISS has no fiduciary duties towards the firms they analyze, their recommendations may not be in the best interest of those firms (Belinfanti, 2009).

Further compounding concerns about ISS assessments is the opacity of the processes and methods used to derive recommendations. Iliev and Lowry (2015) provide evidence that ISS appears to issue blanket recommendations for some types of proxy ballot questions, namely compensation and governance policies. In contrast, Choi, Fisch, and Kahan (2009) argue that policy guidance issued by most proxy advisors indicates that their recommendations are company-specific and based on the evaluation of a variety of performance and governance factors. Their detailed processes, however, remain largely undisclosed, making it difficult to understand the details behind the recommendations. Similarly, Ertimur, et al. (2013) find that ISS does not appear to follow a "one-size fits all" recommendation approach, making the lack of transparency more

[7] For example, in 2013, the US Securities and Exchange Commission fined ISS $300,000 for breach of confidentiality with respect to clients' proxy voting information: https://www.sec.gov/news/press-release/2013-2013-92htm.

salient. In examining reports behind ISS recommendations on shareholders Say-on-Pay votes that occurred in 1,275 firms (from the S&P 500) between January and November 2011, they find that firms with similar compensation attributes (for example, lacking a clawback policy) received both "for" and "against" recommendations.[8] While this evidence is consistent with firm-level assessments to identify poor compensation practices, it also makes their processes less transparent.

Despite the opacity behind ISS processes, empirical research provides evidence of an association between proxy advisor recommendations and voting outcomes related to a variety of proxy items such as director elections and incentive plans (for example, Cai, Garner and Walking (2009) and Morgan, Poulsen, and Wolf (2006)), and SOP votes (for example, Ertimur et al. (2013) and Malenko and Shen (2016))

Given their significant influence on shareholder voting, it is important to understand whether ISS can identify poor compensation practices. However, several factors undermine the ability to draw causal inferences. First, a lack of a counterfactual measure of "optimal" compensation makes it difficult to benchmark the "correct" assessment. Second, there is the issue of potential correlated omitted variables. Factors that influence ISS recommendations may also influence firm performance. Because these factors are unobservable to the researcher, they challenge the ability to attribute causality to the ISS recommendation. As a result, researchers have taken different approaches.

Larcker, McCall, and Orzamabal (2015) study 2,008 firms (from the Russell 3000) holding SOP votes in 2011 and examine compensation changes in response to proxy advisor policy recommendations. They find that firms that are likely to receive "Against" recommendations are more likely to change their compensation policies prior to the vote to align with policies suggested

[8] The authors also examine Glass Lewis reports for the same firms. As we do not have access to Glass Lewis reports, we limit our discussion of their results to ISS reports to align with our sample.

by proxy advisors. Moreover, there is a negative stock market reaction to these compensation changes, which the authors interpret as evidence proxy advisor recommendations lead firms to make suboptimal changes that destroy firm value.

Larcker, McCall, and Ormazabal (2013) examine proxy advisor recommendations on stock option repricing programs. Analyzing 264 programs announced between 2004 and 2009, the authors find lower stock price reactions to the option repricing program announcement and lower subsequent operating performance for firms whose repricing program more closely align to proxy advisor guidelines.[9] They conclude that proxy advisor recommendations on stock option repricing don't increase value for firms.

Ertimur et al. (2013) find negative market reactions to unexpected "Against" ISS recommendations. However, for a subsample of firms announcing compensation plans changes motivated by SOP votes, the market reaction is not significant. They interpret this, together with other findings in their study, as evidence that the primary role of proxy advisors is to synthesize information for investors and not to identify and promote superior compensation practices.

Outside of the realm of executive compensation, there is also mixed evidence on whether proxy advisors identify suboptimal practices. Alexander, et al. (2010) examine recommendations in corporate proxy contests. They find that a voting recommendation in favor of a dissident board team yields positive announcement returns, which they attribute to a "certification" effect – that is, the recommendation conveys information about the value the dissident team will bring to the firm. Daines, Gow and Larcker (2010) examine whether corporate governance ratings are associated with subsequent indicators of poor governance. They find no relation between ISS Corporate Governance Quality ratings (CGQ) and future restatements, future class action lawsuits,

[9] ISS guidelines favor plans in which the program extend vesting periods, exclude officers and directors, exchanges equivalent value, or does not include options that have recently been in-the-money or that were recently granted.

future ROA or future credit ratings. They find some evidence that CGQ is associated with lower future Tobin's Q and has a weak ability to predict future stock returns. The authors infer that ratings contain "a large amount of measurement error" and "boards of directors should not implement governance changes solely for the purpose of increasing their ranking".[10]

Adding to the question of the quality of proxy advisor recommendations is the concern that constrained resources may impact their assessments. Hayne and Vance (2019) use qualitative data collected via structured interviews of stakeholders involved in the relation between firms and proxy advisors. They report that proxy advisors are subject to intense workloads during the busy season, whereby analysts work 12 to 16 hours per day (including the weekends) analyzing complex proxy statements and process between 1 and 12 reports per day. Interviewed board members expressed concerns about the lack of expertise of proxy advisors' temporary or seasonal workers hired during the busy season, the fact that proxy advisors have little time to process thousands of proxy statements, and the potential negative impact that such constraints might have on the quality of their analyses. ISS has approximately 1,200 employees and covers more than 20,000 companies and 40,000 meetings worldwide, but the size of the staff dedicated to analyzing the large amount of data is not disclosed.[11] Doyle (2018) mentions that "(T)o handle its proxy season workload, ISS hires temporary employees and outsources work to employees in Manila. Given the large number of companies that the proxy advisors opine on each year, the inexperience of their staffs, and the complexity of executive pay practices, it's inevitable that proxy reports will have some errors." Based on the findings in Hayes and Vance (2019) and research documenting workload compression effect on evaluations by auditors (Lopez and Peters, 2012) and SEC staff (Gunny and Hermis, 2020), it is possible that resource constraints affect the quality of ISS assessments.

[10] See Daines, et al. (2010), pages 460-461.
[11] See https://www.issgovernance.com/about/about-iss/

In sum, empirical evidence indicates that proxy advisor recommendations have significant influence on shareholder voting and may be a catalyst for change in firms' governance practices. However, research also suggests that their recommendations may not identify poor governance practices, thus influencing firms to make changes that may be simply window-dressing or worse, value-destroying. Given the continued reliance on proxy advisors' recommendations (Rose and Sharfman, 2015) and concerns about the opacity of their evaluations (Hayne and Vance 2019), we revisit the quality of ISS recommendations. In particular, we examine whether ISS recommendations identify firms with suboptimal CEO pay packages and whether the quality of these assessments differs in the "busy season" (i.e., corresponding to the release of proxy statements by firms that have a December FYE) from other times during the year. To the extent that ISS is able to devote more resources and time to non-December FYE firms, we expect the quality of their assessments and recommendations to be higher for those firms.

3. Data

3.1. Sample Characteristics

We obtained detailed compensation assessment information from ISS for companies in the Russell 3000 index over the period 2010 to 2016. Our sample includes 3,342 unique firms and 13,524 firm/year observations.[12] As reported in Table 1, our sample spans the typical industries. Approximately 78% of our observations have December fiscal year-ends.

Compensation assessment information include firm ratings based on ISS overall SOP recommendations and "Levels of Concern". ISS provides an overall recommendation with respect

[12] ISS back- and forward-fills information about firms that exit or enter the sample included in the Russell 3000, leading to more than 3,000 unique firms. Our sample excludes: (1) firm/years for which we had no ISS assessment information; (2) firms that changed their fiscal year end during our sample period; (3) firm/years in which the annual shareholders' meeting was later than 8 months after the end of the fiscal year; (4) firms that issued an 8-k to disclose significant changes in CEO compensation between the annual shareholders' meeting and the end of the fiscal year.

to the SOP vote. The recommendation can be "For" or "Against" a firm's compensation package as reported in the Compensation Discussion and Analysis (CD&A) section of the proxy statement. We construct an indicator variable (*ISSAgainst*) equal to one if ISS recommends to vote against the SOP proposal, and zero otherwise.[13] Levels of Concern assess the risk associated with specific characteristics of executive compensation and with related governance practices of the compensation committee for each covered firm in each year. These five characteristics include: (1) pay for performance components of executive compensation contracts (corresponding to the variable *P4PConcern* in our study), (2) non-performance pay characteristics (*NPPConcern*), (3) the composition of the compensation peer group selected by the compensation committee (*PeerGroupConcern*), (4) the definition of severance and change-in-control provisions (*SevCICConcern*), and (5) the communication practices of the compensation committee (*CCCommConcern*). ISS expresses its level of concern with respect to each of these practices using a three-point scale (low, medium, or high). Our variables are coded such that low concerns correspond to a value of one, medium concerns to a value of two, and high concerns to a value of three. All of our variables are defined in Appendix A.

3.2. Descriptive Statistics

Table 2 Panel A reports the descriptive statistics for all our variables of interest. At least 50% of firm year observations rank "low" (value of one) on each of the Levels of Concerns. Among the Levels of Concern, ISS expresses high concerns most frequently about severance and change-in-control provisions (variable *SevCICConcern*), with a sample average of 1.471. Concerns about performance-based pay (variable *P4PConcern*) and compensation committee communications (variable *CCCommConcern*) are the next most frequent, with sample averages of

[13] We exclude from our sample all cases in which the ISS recommendation relative to Say-on-Pay was to abstain from the vote (i.e. "abstain", "do not vote", or "withhold").

1.393 and 1.330, respectively. Finally, we note that ISS SOP recommendations against pay packages (variable *ISSAgainst*) are a relatively infrequent event. In our sample, an average of 11.4% of firm-year observations receive an "Against" recommendation.

Table 2 Panel B reports changes in ISS assessments. Each of the assessments exhibit some variation from the prior year, with *P4PConcern* having the highest proportion of changes from the prior year (33.5%), calculated as the proportion of off-diagonal observations. At the other extreme, *NPPConcern* assessments have little variation with only 9.1% of observations being different from the prior year.

Table 3 reports the pairwise Pearson correlations. Correlations among the Levels of Concerns are low, though positive, consistent with these concerns reflecting different characteristics of pay practices. Examining the correlation between Levels of Concern and ISS "Against" recommendation (*ISSAgainst*), the concern exhibiting the greatest correlation (0.703) relates to pay for performance (*P4PConcern*). Appendix B provides further evidence of the internal consistencies of ISS assessments.

4. Empirical Analyses

4.1 Market Reactions to ISS Recommendations

We first examine the market reaction to the ISS assessments as a means of assessing the quality of ISS recommendations. Unfortunately, we do not have the exact date on which ISS releases its recommendations. Therefore, we approximate the release of that information to shareholders by examining cumulative abnormal returns in the 13 days prior to the annual meeting. Per ISS policy, their recommendations are available to investors at least 13 days prior to the meeting. We estimate daily abnormal returns following the Carhart four factor model (see Carhart, 1997), estimated over a rolling window of *t*-360 to *t*-60 days before the annual meeting (day *t*).

Table 4 reports tests of differences in abnormal returns. For the pooled sample, we find that the market reaction to firm-years with "Against" recommendations is not significantly different from those receiving "For" recommendations. For the December FYE sample, we find, surprisingly, a *positive* market reaction (0.0027) to firm-years with "Against" recommendations that is statistically different ($p<0.05$) from the *negative* market reaction we observe for those with "For" recommendations (-0.0012). In contrast, in the subsample of non-December FYE firms, we find that the market reaction to "Against" recommendations is negative (-0.0115) and significantly more negative ($p<0.01$) than the reaction to "For" recommendations (-0.0005). We confirm these results in a multivariate analysis (untabulated) in which we regress the abnormal returns on ISS recommendations, while controlling for information in the proxy statement with three-day cumulative abnormal returns around the proxy filing date, and similarly find a positive (negative) and statistically significant market reaction for the December (non-December) FYE firms.[14]

Although the results for the non-December FYE suggest that ISS assessments may identify low quality compensation packages, we are hesitant to draw conclusions from these returns tests. First, while abnormal returns capture investors' reactions to the ISS assessments, it is difficult to interpret those reactions in a way that allows us to validate the appropriateness of the assessment itself (that is, validate that ISS identifies low quality compensation plans). The challenge is that investors may be responding to the ensuing effects of a negative ISS assessment (e.g., changes to compensation plans), without necessarily providing an independent signal of whether the assessment is appropriate.[15] Therefore, a positive reaction may be reflecting an expectation that

[14] In untabulated analyses, we examine the three-day and five-day CARs around the proxy statement filing date, when pay packages are disclosed to shareholders, and find no difference between firm-years with "Against" versus "For" recommendations, suggesting that investors are not incorporating their own interpretation of the information.

[15] Brochet et al. (2020) examine abnormal stock returns between the proxy statement filing and annual meeting and find that investors anticipate the impact of shareholder activism on firm's actions in contentious shareholder meetings.

the board will make effective changes to a presumptively suboptimal pay package. However, a negative reaction could reflect an expectation that the board will fail to make meaningful changes and might, in fact, make changes to appease ISS but that do no improve low quality compensation packages (Larcker, et al., 2015). Thus, interpreting a positive or negative reaction to the negative assessment requires an understanding of investors' expectations, which we do not have. Also, due to data limitations, our announcement period is only an approximation of when the signal is received by investors.[16] Although we examine alternative windows and continue to find similarly contrasting or insignificant results, the inability to precisely define when investors receive the information weakens the power of these tests.

In sum, the 13-day cumulative abnormal stock returns may reflect shareholder reactions to the ISS assessment, and its ensuing effects, instead of the fundamental characteristics of the compensation package that ISS assessed. Consequently, it is difficult to observe a clear signal of investors' assessments through stock returns. For these reasons, we use the alternative research design discussed next.

4.2 ISS Assessments and Firm Performance

Defining an "optimal" compensation practice for a firm is inherently difficult. Therefore, we rely on the notion that less-than-optimal practices should be associated with worse performance, acknowledging that our tests reflect this joint hypothesis.[17] We examine the association between ISS assessments and future industry-adjusted accounting performance (we define as return on assets) to avoid the challenge of inferring the quality of ISS assessments from investor reactions. Accounting performance reflects the quality of compensation practices

[16] We obtain qualitatively similar results when using the 30-day window and the 30- to 13-day window before the annual meeting.
[17] Section 5.1 describes the tests we performed to validate our assumptions.

uncontaminated by how investors may view ISS recommendations. Further, it does not have the self-fulfilling feedback concern of stock returns. And, because we exclude firms that make changes to changes to compensation policy, future accounting performance will reflect that compensation package subject to the assessment and be unaffected by any announcement implications of unfavorable assessments. Thus, if ISS research can identify sub-optimal compensation practices and if these practices are associated with poor performance, we should document a negative association between ISS unfavorable compensation assessments and future abnormal ROA.

ISS evaluations are predominantly based on the content of the Compensation Discussion and Analysis (CD&A) section of the proxy statement, which reports information about compensation of the CEO, CFO, and the three highest paid executives of the firm for the fiscal year just completed (t). Shareholders SOP advisory votes are related to those same pay packages. Although information included in the proxy statement relates to the fiscal year just ended, it is expected that the board of directors will also communicate any material changes to the structure of executive compensation for the upcoming fiscal year ($t+1$). Absent disclosure of any material changes, shareholders will interpret the CD&A not only as an ex-post description of past pay practices, but also as an ex-ante declaration of pay practices that the board intends to apply in the upcoming fiscal year. Therefore, the SOP vote provides shareholders with an opportunity to not only affirm or protest pay received by executives in the prior fiscal year, but also affirm or protest planned changes, or lack thereof, regarding compensation practices for the upcoming year. Appendix C provides a timeline that reflects the flow of information. For a December fiscal year-end firm, the proxy statement for the 2015 fiscal year will be filed two to four months after the fiscal year-end, in our example March 2016. The annual shareholder meeting, during which

shareholders will provide the non-binding Say-on-Pay vote, will typically occur two to three months after the proxy filing date, June 2016 in our example.

Our research design comprises two main sets of tests. First, we examine whether ISS assessments (overall SOP recommendations as well as their more granular levels of concern) identify suboptimal compensation policies. That is, we explore the predictive ability of these assessments with respect to subsequent firm abnormal ROA. We take into consideration the moderating effect of workload compression by evaluating the correspondence between ISS assessments and future abnormal ROA using subsamples constructed based on the month of fiscal year-end of each firm. Second, we examine the implications of discordance between ISS recommendations and shareholder positions. We explore whether firms with an "Against" ISS recommendation have significantly lower abnormal ROA compared to firms that do not (i.e., for which ISS issued a "For" recommendation) regardless of whether: (1) the overall SOP vote passes or fails or (2) large mutual funds vote for or against the pay package. This allows us to validate whether ISS assessments are able to identify suboptimal compensation policies when ISS and shareholders disagree.

4.2.1 ISS Assessments and Future Accounting Performance

If ISS can identify sub-optimal compensation plans, then high levels of concern, and "Against" recommendations should be associated with lower future performance. As discussed earlier, this is a joint test of the assumption that low quality compensation practices are associated with poor future accounting performance. We measure firm performance using industry-adjusted accounting performance (*AbnROA)* and estimate the following model describing the relation between ISS compensation assessments and firm performance:

$$AbnROA_{i,t+1} = \alpha + \sum_j \beta_j ISSAssessment_{i,t} + \sum_m \gamma_m Controls_{i,t} + \sum_n \delta_n FixedEffects + \varepsilon \quad (1)$$

We estimate the relation between performance and two categories of ISS assessments: Levels of Concern (*P4PConcern, NPPConcern, PeerGroupConcern, SevCICConcern, and CCCommConcern)*, and the SOP recommendation (*ISSAgainst*). Due to potential collinearity among these assessments (see Appendix B), we evaluate the categories separately. If ISS unfavorable assessments identify low quality compensation practices, we expect to find negative correlations between those assessments and *AbnROA*.

We control for firms' economic and governance characteristics that are associated with the quality of compensation practices in prior literature (e.g., Core and Guay 1999, Core et al. 1999). We include proxies for firm size: *LogMktVal*, the natural logarithm of the firm's market capitalization at the end of the fiscal year, and *LogSales*, the natural logarithm of net sales reported for the fiscal year. *MTB* measures the market-to-book ratio, capturing the investment opportunities of the firm. We include lagged values of industry adjusted ROA (*AbnROA*) to control for previous accounting performance and the standard deviation of ROA (*SDAbnROA*) over the prior three years to control for its variability. CEO characteristics include *DualCEO*, an indicator variable equal to one if the CEO is also the Chairman of the board, and zero otherwise, *CEOTenure*, which measures the tenure (in years) of the CEO at the particular firm, and *NewCEO*, an indicator variable that is equal to one if the CEO is in her first year at the firm, and zero otherwise. Board characteristics include the number of directors on the board (*BoardSize*), the percentage of non-executive board members that sit on three or more other boards (*BusyNEDirectors*), the percentage of directors that are employees of the company (*InsideDirPct*), and the percentage of male directors (*GenderRatio*). We also include *InsiderPct*, the percentage of outstanding shares held by insiders to the organization and *BlockholdersPct*, the percentage of outstanding shares held by

institutional investors holding at least 5% of the shares. All variables are defined in Appendix A. In all our tests we include year and industry fixed effects.

We estimate Eq. (1) on the pooled sample and on two subsamples: December FYE firms and non-December FYE firms. When we estimate Eq. (1) for the subsample of non-December FYE firms, we include controls for the fiscal year-end month to allow for performance differences that may be correlated with fiscal year-end months.[18] We expect to find a stronger relation between ISS assessments and industry-adjusted accounting performance for the non-December FYE firms if workload compression impairs ISS's ability to evaluate pay practices.

It is possible that firms alter their compensation practices after the release of the proxy statement and the ISS assessments in response to concerns identified. If the changes are ones that would receive more favorable assessments from ISS, this would bias against finding our predicted relation; in these instances, it could lead to negative assessments being associated with higher future performance. Alternatively, boards could introduce changes that ISS would consider to be suboptimal. Since we do not have access to ISS evaluations of these changes, we exclude from our sample 352 observations corresponding to firms filing a Form 8-K after their annual shareholders meeting that included a change impacting the compensation of the CEO.[19]

Table 5 reports results from estimating Eq (1) using OLS with standard errors clustered by firm and including year and industry fixed effects. In Columns (1-2), we report results from the pooled sample. Interestingly, we find no evidence that ISS evaluations are significantly associated with lower industry-adjusted accounting performance (*AbnROA*).

[18] Non-December fiscal year-ends might be correlated with particular industries. In addition to controlling for the fiscal year-end month, all our analyses include industry fixed effects and estimate a dependent variable (accounting performance) defined as industry-adjusted ROA.

[19] The number of observations in our sample indicated above (13,524) is already net of these observations. Including them weakens some of our results but does not materially alter our inferences.

We then test whether ISS evaluations are better at identifying poor pay packages during the "off" season. In Columns (3-4) of Table 5, we examine the relation between ISS assessments and future industry-adjusted accounting performance for firms with December FYE. Consistent with workload compression affecting the quality of the assessments, similar to the pooled sample, we find no significant relation between ISS assessments and future performance.

In Columns (5-6), we examine only firms with non-December FYE and include fiscal year-end month fixed effects, in addition to the year and industry fixed effects. For these firm-year cases, we expect that ISS assessments will be less affected by resource constraints. Consistent with that, we find that future performance is negatively associated with ISS "Against" SOP recommendations (Column 5) and high-risk assessments with respect to pay-for-performance and communication practices (Column 6).[20] Comparisons between coefficients estimated for each of the two samples indicate that the coefficients on *NPPConcern* and *CCCommConcern* are statistically different between the December and non-December FYEs.

In untabulated analyses, we explore whether the quality of ISS assessments is higher for firms with December fiscal year-end that file early (up through March) rather than later (in April). This test allows us to consider the "ego depletion" hypothesis (see Hurley, 2015 for a summary as it pertains to auditing research) whereby analysts are less accurate as they become overworked and tired of doing the same task. We find no significant difference in quality of assessments between the early and the later filers inconsistent with this hypothesis. Instead, our results suggest that the poorer quality of ISS assessments for the December FYE firms is more likely due to lower average ability of the analyst pool in the busy season.

[20] The curious result that non-performance pay concerns are positively associated with future performance is likely driven by outliers. In this regression, only six firms have high risk assessments and of those, three are in the top quartile of abnormal ROA. Non-performance pay concerns are also correlated with pay for performance concerns. When the six firms are excluded and *P4PConcern* is dropped, the coefficient on *NPPConcern* is not significant.

In additional (untabulated) tests, we analyze whether the results for the December FYE firms differ between large and small firms. During the busy proxy season, we expect ISS to devote their most knowledgeable employees, rather than relying on temporary analysts with less experience, to the largest and more visible firms as these are subject to a higher scrutiny. We reperform the tests in columns (3) and (4) separately for firms in the top quintile market capitalization at the beginning of the fiscal year versus all other firms. Interestingly, we find a negative and statistically significant association between both ISS "Against" assessments and *P4PConcern* and future performance for the largest firms (top quintile), while continuing to find no association between ISS assessments and firm performance for the other firms. This result is consistent with ISS allocating its resources strategically during its busy season producing higher quality analyses for the most visible firms.

Together, these results suggest that ISS evaluations of compensation practices are informative about future firm performance, mostly for firms in the off-season (non-December FYE). When ISS is busier, the quality of their assessments seems to degrade, as ISS evaluations are not significantly associated with lower future performance, except for the largest, most visible firms.[21] Recall that our analyses include several control variables that have been shown to be associated with poor compensation practices. Therefore, the interpretation of ISS assessments is incremental to economic and governance characteristics that predict the quality of compensation practices.

[21] In untabulated tests, we find that the relation between ISS assessments and SOP vote outcome are similar between December and non-December FYE firms. We interpret these results that shareholders follow ISS recommendations independently of FYE, but the quality of ISS analysis and interpretation of proxy statement information deteriorates for December FYE firms impacting its ability to inform shareholders.

4.2.2 ISS/Shareholders Agreement/Disagreement

Research provides evidence that investors perform independent research on proxy ballot items and reach different opinions from ISS. Iliev and Lowry (2015) find that mutual funds for which the benefits of independent assessments outweigh the costs appear to be "actively voting", thus not necessarily following ISS recommendations.[22] More recently, Iliev, et al. (2019) provide more direct evidence of investor research by examining the extent to which mutual funds access proxy statements. This suggests that shareholders may independently assess compensation packages and reach a different opinion from ISS. To further examine whether ISS assessments are informative about poor performance practices, we examine the discordance between ISS recommendations and shareholder positions.

If ISS recommendations identify sub-optimal compensation policies, then "Against" recommendations should predict poor future performance, regardless of whether shareholders are supportive. We use two proxies to capture shareholders' position on compensation packages: SOP voting outcomes and mutual fund votes cast. Mutual fund votes are reported in mandatory N-PX filings. We focus on the voting positions on firms in our sample made by the three largest fund institutions (Big Three) following Bebchuk and Hirst (2019): BlackRock, Vanguard, and State Street Global Advisors. [23]

We leverage variation in the agreement between shareholder and ISS positions taken on compensation policies by partitioning our sample into four categories: (1) shareholders and ISS

[22] Specifically, examining mutual fund voting on proxy ballot items from 2006-2010, Iliev and Lowry (2015) document that only 25% of the funds in their sample appear to rely on ISS recommendations.

[23] Votes are cast at the fund level and there are multiple funds within each institution. Because we are not able to determine the weight of each vote on the final outcome (i.e., we lack the number of shares held by each individual fund in each firm), we only consider cases where there is consensus at the institution level on the SOP vote. That is, we code an institution as voting for (against) SOP in a particular firm/year if all of its mutual funds vote for (against). We calculate the standard deviation of SOP voting (for or against) across funds and years at the Big Three institutions and find that the variation in the voting position of the individual funds within each institution is economically small suggesting there isn't a significant discrepancy of voting across funds within the same institution.

both support ("For/For"), (2) shareholders and ISS are both against ("Against/Against"), (3) shareholders are against but ISS supports ("Against/For"), and (4) shareholders support but ISS is against ("For/Against"). We consider shareholders to be "For" if the SOP passes, as defined by the required threshold, and against otherwise. Panel A of Table 6 summarizes the distribution of cases of disagreement between shareholder SOP voting and ISS recommendations. For mutual fund positions, we define support when all fund companies vote in favor of the pay package and opposition when anyone votes against (see Table 7, Panel A).[24]

We estimate the following model to examine the relation between accounting performance and agreement/disagreement between shareholders and ISS:

$$AbnROA_{i,t+1} = \alpha + \beta_1 AA_{i,t} + \beta_2 FA_{i,t} + \beta_3 AF_{i,t} + \sum_k \gamma_k Controls_{i,t} + \sum_n \delta_n FixedEffects + \varepsilon, \quad (2)$$

where firm/year observations associated with favorable agreement between ISS and shareholders (*FF*) serve as the reference case. If ISS "against" recommendations reflect compensation practices that lead to poor future accounting performance, we expect the coefficient associated with *FA* not to be statistically different from the coefficient associated with *AA*.

In these tests, we allow the relation between ISS "Against" recommendations and future performance to depend on whether shareholders pass the SOP vote or not. In the estimation of Eq. (2), the base case (included in the intercept) corresponds to firm/year observations where both the SOP vote passes, and ISS recommends "For" the compensation package (*FF*). We drop the rare cases (11 observations) for which ISS recommends "For" but the SOP vote fails.

Panel B of Table 6 reports our estimation results. We do not find any statistical difference between the three cases included in our test for the pooled sample (column 1) as well as the subsample of firms with fiscal year-end in December. In contrast, for the subsample of firms with

[24] By defining "Against" this way, we allow strong support to be captured in the "For" cases and include disagreement within the Big Three funds companies in the "Against" case.

fiscal year-end not in December we find that ROA is significantly lower when both ISS and shareholders assess the compensation package negatively (i.e., ISS recommends "Against" and the SOP vote does not pass) compared to when shareholders and ISS agree in favor of the compensation plan (*FF* case, included in the intercept). Interestingly, ROA is also lower than the base case when the SOP vote passes despite an "Against" recommendation by ISS (β_1= -0.015, p<0.10) and the associated coefficient is not statistically different from the one estimated for the case in which shareholders and ISS both agree *against* the SOP proposal. That is, when ISS recommends against a compensation package, future performance is lower, regardless of how shareholders vote on the pay package.

In sum, our results suggest that ISS "Against" recommendations identify low quality compensation practices that are associated with worse future ROA, even in the presence of a favorable shareholder vote. However, these recommendations are only informative during the "off" season when assessments are less affected by workload compression.

4.2.3 Informativeness of ISS Assessments when Large Mutual Funds and ISS agree/disagree

Our last set of tests incorporates cases of voting disagreements between ISS recommendations and any (or at least two) of the Big Three mutual fund companies (BlackRock, Vanguard and State Street Advisory Services). Table 7, Panel A reports the distribution of these cases for the Big Three.

Table 7, Panel B, reports our multivariate estimations. We find no evidence of predictive ability when both ISS and the Big Three agree and are against the SOP proposal (variable *AA*), unless we restrict the sample to non-December fiscal year-end firms and require that at least two of the Big Three vote against the SOP proposal (column 6). When the Big Three (or at least two of them) are in favor but ISS recommends "Against" (variable *FA*) performance is not

distinguishable from the base case (i.e., *FF*, in which both ISS and the Big Three support the SOP proposal).[25] When all of the Big Three vote against but ISS recommends "For," we find lower performance for the firms in the non-December fiscal year-end (column 3), whereas when we require that at least two of the Big Three vote against while ISS supports the SOP vote, performance is lower than the *FF* case in both the pooled sample and the December fiscal year-end subsample. Note that the coefficient on *AF* in Column 6 is excluded; in only seven firm years do two of the funds vote *against* while ISS recommends *for* (see Panel A). These results suggest that mutual fund companies' research quality does not suffer as much during the busy season.

Taken together, these findings mitigate our earlier conclusions about the usefulness of ISS assessments, by showing that sophisticated investors committing significant resources to the evaluation of executive compensation packages in the firms in their portfolio can detect poor quality compensation practices better than ISS.

5. Additional Analyses

5.1 Assessing our assumptions

Our inferences hinge on the joint assumption that ISS assessments identify low quality compensation packages and that those packages are associated with lower future performance. To help assuage concerns that these assumptions are unrealistic, we attempt to measure individual aspects of low-quality compensation and examine their correlation with ISS assessments and future abnormal ROA. We consider three proxies for low quality compensation: excess

[25] When we restrict the sample to those firms for which ISS continues to issue the same recommendation in the following year, the coefficient is negative and statistically significant (p-value<0.01) as expected. This constitutes the sample where we would expect to find the strongest results as these firms continued not to adopt ISS suggested changes and thus are expected to suffer from higher agency costs.

compensation (*ExcessPay*) defined following Core, Guay and Larcker (2008)[26], the proportion of total pay that is unrelated to firm performance (*NonPerformancePay*), measured as the sum of salary and other pay (Execucomp variables SALARY and OTHCOMP) scaled by total compensation (Execucomp variable TDC1), and the natural logarithm of perquisites (*LogOtherComp*), defined as the natural logarithm of Execucomp variable OTHCOMP following Bennett, Garvey, Milbourn and Wang (2019). CEO consumption of perquisites represents a classic example of agency conflicts associated with the misuse of firm resources (Grossman and Hart, 1983; Jensen and Meckling, 1976).

To examine whether low quality compensation is associated with negative ISS assessments, we estimate separate OLS regressions of each ISS assessment on each proxy for low quality compensation. In Table 8 Panel A, we report the only relevant coefficients (i.e., those estimated for the low-quality compensation proxies) and *t*-statistics and find that for two of the low-quality proxies (excess pay and perquisites) they are largely supportive of our assumption.[27] Higher excess pay is significantly related to all ISS negative assessments. Greater perquisite compensation is also significantly associated with all ISS negative assessments, except committee communication concerns. We find that perquisite compensation is significantly associated with *lower* compensation committee communication concerns, which may be due to greater explanations provided for non-standard forms of pay. Surprisingly, higher non-performance pay is negatively significantly associated with "Against" recommendations and concerns over pay-for-performance, non-performance pay, and peer group selected. We test the robustness of this

[26] Excess pay is the residual of log pay from an expected CEO log compensation model that controls for economic determinants such as CEO tenure, firm size, book-to-market of assets, concurrent and lagged stock returns, concurrent and lagged accounting returns, whether the firm belongs to the S&P500, and year and industry controls.

[27] We report results of firm-year observations for all FYE. The results are similar when we restrict the sample to the December FYE and non-December FYE subsamples.

surprising result for the non-performance pay proxy by repeating the analysis using the change-in-control (CIC) payments and whether stock options are repriced as alternative proxies. These latter proxies are explicitly mentioned in ISS's procedures as a way to identify "problematic pay practices" with respect to non-performance-based compensation elements. We follow the details in ISS procedures and define firm-year observations with "problematic" non-performance pay as those that have a dollar value of CIC payments larger than three times the amount of salary and bonus (measured as Execucomp variables BONUS and NONEQ_INCENT) or those with stock option repricing events (identified by Execucomp variable REPRICE=1). We continue to find a negative association between these two alternative proxies and "Against" recommendations and compensation assessment concerns. Although we are not able to explain this surprising result, the negative relation between the non-performance pay proxies and ISS assessments is in line with the previous curious result that firms with greater non-performance concerns exhibit higher, not lower, future *AbnROA* (see Table 5, Column 6). Non-performance pay is, however, positively related to committee communications concerns.

In Table 8 Panel B, we report estimates of OLS regressions of future abnormal ROA on our proxies for low quality compensation. For each proxy, we find a negative and significant relation with future performance. We are cautious to place too much emphasis on what are essentially correlations. However, we believe the results help establish some support for our key research design choices.[28]

5.2 Entropy balancing and placebo tests

To address concerns about endogeneity or omitted variables, we test the robustness of our results using entropy balancing. This approach uses a reweighting scheme to adjust the covariate

[28] In untabulated analyses, we drop firm-year observations with CEO turnover events and get similar results to those presented in Table 8.

balance between treatment and control samples (see Hainmueller and Xu 2013). Our treatment firms are those that receive an "Against" recommendation, while firms receiving a "For" recommendation make up our control sample. We reweight the distribution of the control sample so that the first moment (mean) and the second moment (variance) of the distribution of each covariate (i.e., all governance and economic characteristics included in Eq. (1)) is equal across the two samples. We then estimate Eq. (1) on the full sample generated with this procedure. As documented in Table 9, Panel A, we find lower performance for firms receiving "Against" recommendations in the pooled sample (column 1), but this effect is driven by the Non-December FYE; there is no statistical evidence of an effect in the December FYE subsample.

Next, we perform a series of placebo tests, whereby we randomly assign firm/year observations to values of the indicator variable *ISSAgainst*. We estimate Eq. (1) using this random assignment 1,000 times and report the average value of the estimated coefficient on *ISSAgainst* in Table 9, Panel B. We perform the routine on the pooled sample and on the subsamples of firms with December and non-December fiscal year-ends. To explore the possibility that poor firm performance drives the ISS unfavorable recommendations, we repeat the estimation on a subsample of firms in the lowest half of lagged *AbnROA* in each year of our sample period. In all cases, the estimated coefficient is not statistically different from zero, confirming that our main findings are not due to chance.

5.3 Performance Determining ISS Assessments

One concern of our analyses is that the ISS assessments may be a function of current firm performance which is correlated with future performance. We address this concern in several ways. First, in our main tests, we control for lagged performance. If ISS recommendations are driven by how the firm *has* performed and not how it *will* perform, this variable should predict ISS

assessments and we should not have significant explanatory power from our variables of interest. We find an association between ISS assessments and future performance that is incremental to the predictive ability of past performance, suggesting that prior performance is not solely determining these assessments. Second, we repeat the estimation of Eq. (1) on the subsample of firms with lagged performance ranking in the lowest half of each year. If ISS "Against" recommendations are determined by poor accounting performance, our main findings should not hold in this subsample. Inconsistent with that explanation, we continue to find that ISS "Against" recommendations are associated with lower accounting performance in the subsample of non-December fiscal year-end firms.[29] Third, our tests examining December FYE separate from non-December FYE also address this concern. If ISS "Against" recommendations are mechanically driven by past poor performance that persists rather than by ISS' ability to inform shareholders about suboptimal packages, we should find the relation between an "Against" recommendation and future performance to be similar between firms with December FYE and non-December FYE. As mentioned above, we do not find such a result.

6. Conclusion

Proxy advisors have come under increased scrutiny. The opacity of their methodology and the potential for conflicts of interest with the firms for which they provide recommendations to institutional investors, amplified by their influence on voting outcomes, call into question whether their recommendations are informative about the quality of executive compensation practices. Although academic research suggests that their recommendations may not improve firms' compensation policies and that they merely synthesize information for investors, their services are

[29] The coefficients estimated for the Levels of Concern for the non-December fiscal year-end are consistent with our main findings, but their statistical significance might be impaired by the small sample size (low statistical power).

still in high demand. The lack of congruence between market forces that continue to support proxy advisory services and academic evidence suggesting their services may not add value leads us to revisit the question of whether ISS assessments identify firms with suboptimal CEO pay packages.

Using data obtained from ISS from 2010 to 2016 for Russell 3000 companies, we find that ISS recommendations are associated with future industry-adjusted accounting performance, but only for non-December fiscal year-end firms. This suggests that when ISS is less busy and able to devote better resources to analyzing firms' compensation packages, their recommendations are of higher quality and they are better able to identify poorer compensation packages. While we do not find a relation between assessments and future performance for the sample of all December fiscal year end firms, we find evidence consistent with strategic deployment of limited resources in that negative assessments for the largest of these firms are associated with lower future performance. Collectively, these results provide the first evidence, to our knowledge, that ISS activities may be value-added to shareholders to the extent that they are exposed to low levels of workload compression. This evidence sheds new light on why proxy advisors remain widely used by institutional investors but also highlights why these assessments should be viewed with caution.

Our study is not without some limitations. First, we infer the quality of ISS assessments of compensation practices by exploring their association with accounting performance, requiring the joint assumption that poor future performance results from low quality compensation practices. Although it is still possible that an omitted variable explains both low quality compensation practices and future poor industry-adjusted accounting performance across firms with different fiscal year-ends, our results are robust to a battery of robustness tests including placebo tests, matching firms on economic and governance characteristics using entropy balancing, and considerations of the influence of observed performance on the determination of the

recommendation. Second, while we provide evidence that ISS assessments are predictive of future industry-adjusted accounting performance, our results do not establish whether ISS performs a key intermediary role in the capital markets that cannot be conveniently substituted by investors' capabilities to process the same information. As our results show, the Big Three (BlackRock, Vanguard, and State Street Global Advisors) mutual fund assessments are also associated with future performance suggesting that other channels exist through which the market incorporates proxy statement information in the absence of ISS recommendations.

Despite these limitations, we believe our work contributes to the literature by providing novel evidence that ISS evaluations can identify sub-optimal compensation practices and by identifying conditions where ISS effectiveness is greater (i.e. in the off-season).

Appendix A

Variable Definitions

Variable	Definition
AbnROA	Industry-adjusted return on assets.
BigThreeAgainst	Indicator variable equal to 1 if *any* of the three largest mutual funds (BlackRock, Vanguard, and State Street Global Advisors) votes against the SOP proposal, and 0 if *all* of them vote in support of SOP. The variable is defined only if *all* three funds invest in the firm/year. The variable is undefined if only a subset of the funds underneath each institution votes in support, while other funds within the same institution vote against.
BlockholdersPct	Percentage of outstanding shares held by blockholders. Blockholders are defined as investors who hold at least 5% of outstanding shares.
BoardSize	Number of directors.
BusyNEDirectors	Percentage of non-executive directors that sit on three or more boards.
CAR13	Sum of daily abnormal returns (calculated per Carhart (1997) four-factor model) from *t*-13 to *t-1* (day *t* corresponds to the annual shareholders' meeting date).
CCCommConcern	Ordinal variable representing the ISS level of concern relative to compensation committee communication policies and practices, and assuming a value of 1 if the concern is low, a value of 2 if the concern is medium, and a value of 3 if the concern is high.
CEOTenure	CEO tenure measured in years.
DualCEO	Indicator variable equal to 1 if the CEO is also the Chairman of the Board, and zero otherwise.
GenderRatio	Percentage of male directors.
InsideDirPct	Percentage of directors that are also employees of the company.
InsidersPct	Percentage of shareholders that are insiders of the company.
ISSAgainst	Indicator variable equal to 1 if ISS recommends against management's Say-on-Pay proposal, and zero if ISS recommends in favor of the Say-on-Pay proposal. Observations for which ISS recommended to withhold or abstain were dropped from the sample.
LogMktval	Natural logarithm of the market value of the firm.
LogSales	Natural logarithm of the sales revenue of the firm.
MTB	Market-to-book ratio of equity.
NewCEO	Indicator variable equal to 1 if the CEO is in his first year, and 0 otherwise.

NPPConcern	Ordinal variable representing the ISS level of concern relative to non-performance pay aspects of executive compensation, and equal to 1 if the concern is low, equal to 2 if the concern is medium, and equal to 3 if the concern is high.
P4PConcern	Ordinal variable representing the ISS level of concern relative to pay-for-performance aspects of executive compensation, and equal to 1 if the concern is low, equal to 2 if the concern is medium, and equal to 3 if the concern is high.
Pass	Indicator variable equal to 1 if Say-on-Pay vote is favorable, and zero otherwise. A Say-on-Pay vote passes when the votes in favor are greater than the required percentage of base, as set by the firm.
PeerGroupConcern	Ordinal variable representing the ISS level of concern relative to the choice of peer groups for executive compensation purposes, and equal to of 1 if the concern is low, equal to 2 if the concern is medium, and equal to 3 if the concern is high.
SDAbnROA	Standard deviation of the industry-adjusted return on assets calculated over the prior 3 years.
SevCICConcern	Ordinal variable representing the ISS level of concern relative to severance and change in control provisions, and equal to 1 if the concern is low, equal to 2 if the concern is medium, and equal to 3 if the concern is high.

Appendix B
Internal Consistency between ISS Assessments

Given the small correlation between ISS assessments (see Table 3), we test whether ISS assessments are internally consistent. To evaluate the association between ISS SOP recommendations and Levels of Concern pertaining to characteristics of compensation packages, we estimate the following model:

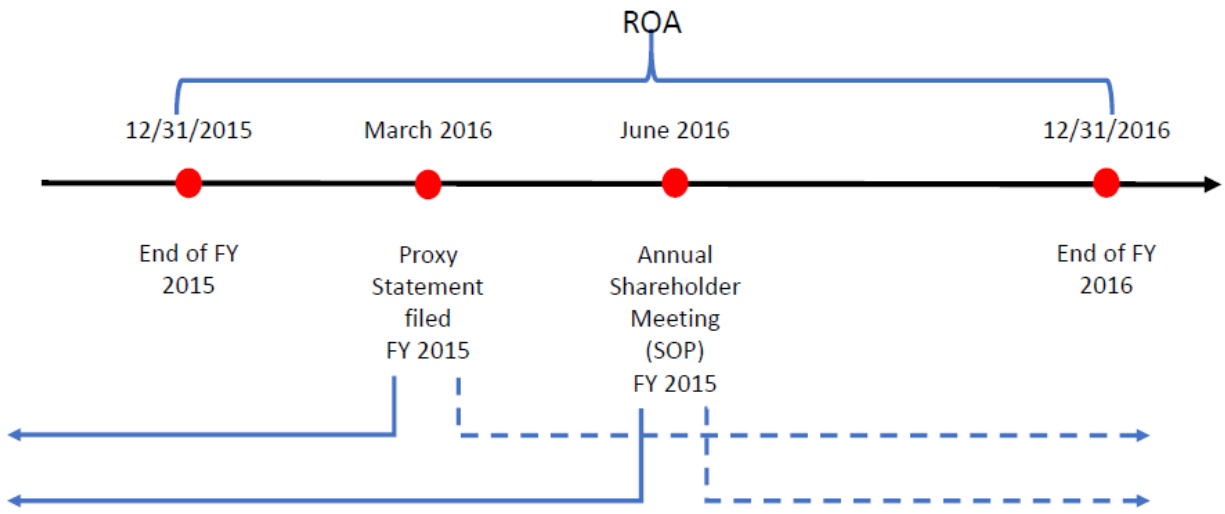
$$ISSAgainst_{i,t} = \alpha + \sum_j \beta_j Concerns_{i,t} + \sum_m \gamma_m Controls_{i,t} + \sum_n \delta_n FixedEffects + \varepsilon \qquad \text{(B-1)}$$

We estimate Eq. (B-1) using a linear probability model. We include control variables and fixed effects in line with our main tests:

Variables	*DV = ISSAgainst*
P4PConcern	0.314***
	(39.65)
NPPConcern	0.072***
	(4.53)
PeerGroupConcern	0.030***
	(2.93)
SevCICConcern	0.082***
	(9.49)
CCCommConcern	0.062***
	(6.47)
Controls	YES
Year FE	YES
Industry FE	YES
Clustering by Firm	YES
N	5,790
Adj-R^2	0.532

Notes: This table reports the results of the estimation of Eq. (B-1). Coefficients are estimated using OLS with heteroskedasticity robust standard errors clustered by firm. The value of the t-statistic is reported in parenthesis underneath each coefficient. Statistical significance is reported as follows: * p<0.10; ** p<0.05; *** p<0.01.

Appendix C
Timeline of proxy filing and ISS recommendations
for a representative firm with a December fiscal year-end



In this example a firm has a fiscal year ending on December 31 of 2015. The proxy statement and related ISS assessments will likely be issued around March 2016. The proxy statement will include descriptions of the compensation paid to executives in fiscal year 2015, and any material changes (or lack thereof) to compensation practices determining the pay of executives in fiscal year 2016. Proxy statement, ISS assessments, recommendations, and SOP vote are all dated 2016 and we posit that they are predictive of accounting performance of fiscal year 2016. In our regressions we indicate the ISS assessments issued in March of 2016 as $ISSAssessment_{i,2016}$ to indicate that the information included in the proxy statement (describing the compensation paid in fiscal year 2015) becomes available to investors and to ISS in 2016.

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Table 1: Sample Composition by Industry

Global Industry Classification (GIC)	Pooled Sample - Any FYE			December FYE			Non-December FYE		
	Nr. Firms	Nr. Obs.	% Sample	Nr. Firms	Nr. Obs.	% Sample	Nr. Firms	Nr. Obs.	% Sample
10 Energy	204	834	0.06	185	762	0.07	19	72	0.02
15 Materials	153	694	0.05	121	563	0.05	32	131	0.04
20 Industrial	447	1,945	0.14	327	1,444	0.14	120	501	0.17
25 Consumer Discretionary	416	1,664	0.12	242	958	0.09	174	706	0.23
30 Consumer Staples	125	487	0.04	63	251	0.02	62	236	0.08
35 Healthcare	488	1,773	0.13	395	1,452	0.14	93	321	0.11
40 Financials	642	2,715	0.20	588	2,544	0.24	54	171	0.06
45 Information Technology	503	1,903	0.14	311	1,146	0.11	192	757	0.25
50 Telecom Services	127	411	0.03	107	348	0.03	20	63	0.02
55 Utilities	77	370	0.03	67	328	0.03	10	42	0.01
60 Real Estate	160	728	0.05	151	699	0.07	9	29	0.01
Total	3,342	13,524	1.00	2,557	10,495	1.00	785	3,029	1.00

Notes: This table reports the composition of our sample using the MSCI Global Industry Classification Standard (GICS). We limit the granularity of our classification to the first two digits of the industry code.

Table 2: Descriptive Statistics

Panel A: Descriptive statistics on ISS assessments, firm characteristics and voting outcomes

Variable	N	Mean	Std. Dev.	p25	p50	p75
AbnROA	13,375	0.057	0.300	-0.015	0.027	0.109
CAR13	12,914	-0.001	0.068	-0.029	-0.001	0.027
P4PConcern	9,962	1.393	0.651	1.000	1.000	2.000
NPPConcern	9,983	1.107	0.340	1.000	1.000	1.000
PeerGroupConcern	9,992	1.146	0.371	1.000	1.000	1.000
SevCICConcern	9,983	1.471	0.549	1.000	1.000	2.000
CCCommConcern	9,879	1.330	0.501	1.000	1.000	2.000
ISSAgainst	13,436	0.114	0.318	0.000	0.000	0.000
Pass	13,450	0.982	0.132	1.000	1.000	1.000
BigThreeAgainst	7,809	0.099	0.298	0.000	0.000	0.000
LogMktval	12,480	7.032	2.040	5.607	7.064	8.405
MTB	12,480	1.356	1.838	0.400	0.888	1.643
LogSales	13,244	6.589	2.191	5.212	6.694	8.032
SDAbnROA	12,937	0.057	0.201	0.007	0.023	0.054
DualCEO	12,261	0.395	0.489	0.000	0.000	1.000
InsideDirPct	12,261	0.156	0.081	0.100	0.125	0.200
BusyNEDirectors	12,261	0.055	0.088	0.000	0.000	0.111
CEOTenure	11,749	5.896	5.941	1.800	4.000	8.200
NewCEO	11,749	0.162	0.369	0.000	0.000	0.000
GenderRatio	12,261	0.873	0.109	0.800	0.875	1.000
BoardSize	12,261	8.991	2.503	7.000	9.000	10.000
InsidersPct	10,136	0.100	0.155	0.018	0.041	0.105
BlockHoldersPct	10,136	0.273	0.163	0.159	0.255	0.367

Panel B: Changes in ISS assessments from the prior year

	Any FYE			Dec FYE			Non-Dec FYE		
P4PConcern	Low (t)	Med (t)	High (t)	Low (t)	Med (t)	High (t)	Low (t)	Med (t)	High (t)
Low (t-1)	4,033	705	232	3,118	550	196	915	155	36
Med (t-1)	810	535	214	612	411	168	198	124	46
High (t-1)	187	252	199	160	203	164	27	49	35
Off-Diagonal Obs.			33.5%			33.8%			32.2%
NPPConcern	Low (t)	Med (t)	High (t)	Low (t)	Med (t)	High (t)	Low (t)	Med (t)	High (t)
Low (t-1)	6,181	274	17	4,784	222	14	1,397	52	3
Med (t-1)	296	343	14	226	284	11	70	59	3
High (t-1)	28	24	16	22	22	13	6	2	3
Off-Diagonal Obs.			9.1%			9.2%			8.5%
PeerGroupConcern	Low (t)	Med (t)	High (t)	Low (t)	Med (t)	High (t)	Low (t)	Med (t)	High (t)
Low (t-1)	5,684	433	17	4,466	340	16	1,218	93	1
Med (t-1)	520	477	21	377	349	20	143	128	1
High (t-1)	21	24	4	20	19	1	1	5	3
Off-Diagonal Obs.			14.4%			14.1%			15.3%
SevCICConcern	Low (t)	Med (t)	High (t)	Low (t)	Med (t)	High (t)	Low (t)	Med (t)	High (t)
Low (t-1)	3,244	618	44	2,446	482	33	798	136	11
Med (t-1)	525	2,507	90	418	2,024	70	107	483	20
High (t-1)	60	90	12	47	71	10	13	19	2
Off-Diagonal Obs.			19.8%			20.0%			19.3%
CCCommConcern	Low (t)	Med (t)	High (t)	Low (t)	Med (t)	High (t)	Low (t)	Med (t)	High (t)
Low (t-1)	4,445	430	31	3,446	327	23	999	103	8
Med (t-1)	738	1,295	47	569	1,030	39	169	265	8
High (t-1)	33	30	25	29	17	19	4	13	6
Off-Diagonal Obs.			18.5%			18.3%			19.4%
ISS Recommend.	Against (t)	For (t)		Against (t)	For (t)		Against (t)	For (t)	
Against (t-1)	336	625		268	506		68	119	
For (t-1)	654	7,639		526	5,905		128	1,734	
Off-Diagonal Obs.		13.8%			14.3%			12.1%	

Notes: **Panel A** reports descriptive statistics for the variables of interest in our study. The descriptive statistics were calculated for each variable on the entire range of observations. In our statistical analyses we winsorize all continuous variables at the 1st and 99th percentiles. **Panel B** provides information on the stationarity of the ISS assessments within our sample by reporting the counts of observations that fall into each cell, comparing year *t* to year *t*−1.

Table 3: Correlation Matrix

		(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*
(1)	*AbnROA*	1.000									
(2)	*CAR13*	0.015*	1.000								
(3)	*P4PConcern*	-0.052***	0.028***	1.000							
(4)	*NPPConcern*	0.000	0.002	0.163***	1.000						
(5)	*PeerGroupConcern*	0.038***	0.015	0.253***	0.060***	1.000					
(6)	*SevCICConcern*	-0.019*	0.007	0.052***	0.063***	0.019*	1.000				
(7)	*CCCommConcern*	-0.035***	-0.021**	0.145***	0.032***	0.035***	0.022**	1.000			
(8)	*ISSAgainst*	-0.048***	0.009	0.703***	0.196***	0.207***	0.206***	0.215***	1.000		
(9)	*Pass*	-0.009	0.006	-0.311***	-0.100***	-0.117***	-0.062***	-0.118***	-0.355***	1.000	
(10)	*AnyTop3_Against*	-0.065***	-0.012	0.596***	0.165***	0.184***	0.094***	0.198***	0.681***	-0.409***	1.000
(11)	*LogMktval*	0.261***	0.009	0.015	0.176***	0.060***	-0.053***	-0.267***	0.006	-0.013	-0.059***
(12)	*MTB*	-0.107***	0.002	-0.035***	-0.046***	0.076***	-0.039***	0.075***	-0.016*	0.006	-0.005
(13)	*LogSales*	0.242***	0.007	0.001	0.179***	0.001	-0.062***	-0.299***	-0.004	-0.012	-0.076***
(14)	*SDAbnROA*	-0.557***	-0.012	0.056***	-0.028***	0.075***	-0.012	0.095***	0.057***	-0.007	0.072***
(15)	*DualCEO*	0.008	0.010	0.042***	0.106***	0.043***	0.028***	-0.005	0.025***	-0.027***	0.053***
(16)	*InsideDirPct*	-0.028***	-0.003	0.026**	-0.040***	-0.005	0.012	0.262***	0.042***	-0.022**	0.057***
(17)	*BusyNEDirectors*	0.040***	-0.001	0.063***	0.075***	0.057***	-0.045***	-0.075***	0.035***	-0.003	0.050***
(18)	*CEO Tenure*	0.016*	0.010	0.022**	0.022**	0.023**	0.058***	0.102***	0.019**	-0.024***	0.031**
(19)	*NewCEO*	-0.031***	0.006	0.009	0.022**	-0.001	0.002	-0.025**	0.019**	-0.011	0.002
(20)	*GenderRatio*	-0.087***	0.008	0.022**	-0.039***	0.018*	0.038***	0.221***	0.041***	-0.021**	0.065***
(21)	*BoardSize*	0.033***	0.010	0.000	0.093***	-0.007	-0.032***	-0.213***	-0.022**	0.016*	-0.045***
(22)	*InsidersPct*	-0.026***	-0.001	0.020*	-0.005	-0.017	-0.047***	0.252***	0.054***	0.030***	0.067***
(23)	*BlockHoldersPct*	-0.015	0.004	0.007	-0.067***	-0.010	0.066***	-0.017	0.001	-0.010	0.005

(Table 3 continues on the next page)

Table 3: Correlation Matrix (Cont'd)

	(11)	*(12)*	*(13)*	*(14)*	*(15)*	*(16)*	*(17)*	*(18)*	*(19)*	*(20)*	*(21)*
(11) LogMktval	1.000										
(12) MTB	0.118***	1.000									
(13) LogSales	0.826***	-0.141***	1.000								
(14) SDROA	-0.144***	0.309***	-0.196***	1.000							
(15) DualCEO	0.162***	-0.012	0.151***	-0.042***	1.000						
(16) InsideDirPCT	-0.281***	0.097***	-0.269***	0.046***	0.052***	1.000					
(17) BusyNEDirectors	0.303***	0.044***	0.275***	0.025***	0.029***	-0.154***	1.000				
(18) CEO Tenure	-0.073***	0.003	-0.086***	-0.054***	0.211***	0.160***	-0.093***	1.000			
(19) NewCEO	-0.002	-0.002	0.022**	0.050***	-0.086***	-0.013	0.017*	-0.395***	1.000		
(20) GenderRatio	-0.323***	0.006	-0.316***	0.074***	-0.057***	0.231***	-0.114***	0.058***	-0.025***	1.000	
(21) BoardSize	0.490***	-0.173***	0.461***	-0.174***	0.043***	-0.377***	0.131***	-0.049***	0.019**	-0.293***	1.000
(22) InsidersPCT	-0.242***	0.055***	-0.185***	0.029***	0.027***	0.335***	-0.085***	0.160***	-0.043***	0.152***	-0.156***
(23) BlockHoldersPCT	-0.166***	0.022**	-0.140***	0.044***	-0.101***	-0.047***	0.002	-0.064***	0.004	0.054***	-0.168***

Notes: This table reports the pairwise Pearson correlation coefficients with respect to all our variables of interest. Statistical significance is indicated as follows: * p<0.10; ** p<0.05; *** p<0.01.

Table 4: ISS Assessments and Announcement Returns

Panel A: Comparison of average market reaction to ISS's "For" and "Against" recommendations:

DV = *CAR13*		ISS *For* (1)	ISS *Against* (2)	Test of Difference (p-value) (3)
Pooled Sample.	Mean	-0.0010	-0.0000	0.55
	Nr. Obs.	11,384	1,444	
December Fiscal Year-End.	Mean	-0.0012	0.0027	0.03**
	Nr. Obs.	8,829	1,166	
Non-December Fiscal Year-End.	Mean	-0.0005	-0.0115	<0.01***
	Nr. Obs.	2,555	278	

Notes: This table reports the results of univariate tests analyzing the market reaction to ISS against recommendations. We measure market reaction by the cumulative abnormal returns, calculated per Carhart (1997) four-factor model, for the 13 days prior to the annual meeting date. Column (1) reports values for firms-years receiving a "For" recommendation. Column (2) reports for those receiving "Against". Column (3) reports the results of univariate tests of differences in means. Statistical significance of the differences in means is indicated as follows: * $p<0.10$; ** $p<0.05$; *** $p<0.01$.

Table 5: ISS Assessments and Future Accounting Performance

DV = $AbnROA_{i,t}$	Any Fiscal Year-End		December Fiscal Year-End		Non-December Fiscal Year-End	
	(1)	(2)	(3)	(4)	(5)	(6)
$ISSAgainst_{i,t}$	-0.006		-0.003		-0.017**	
	(-1.16)		(-0.54)		(-2.28)	
$P4PConcern_{i,t}$		-0.005**		-0.004		-0.007**
		(-2.07)		(-1.57)		(-2.35)
$NPPConcern_{i,t}$		-0.000		-0.004		0.011*
		(-0.04)		(-0.97)		(1.95)
$PeerGroupConcern_{i,t}$		0.002		0.001		0.001
		(0.46)		(0.22)		(0.12)
$SevCICConcern_{i,t}$		0.001		0.001		-0.001
		(0.38)		(0.43)		(-0.26)
$CCCommConcern_{i,t}$		-0.003		-0.002		-0.010***
		(-1.27)		(-0.48)		(-2.73)
Controls	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
FYE Month FE	NO	NO	NO	NO	YES	YES
Clustering by Firm	YES	YES	YES	YES	YES	YES
N	6,443	5,826	4,883	4,444	1,560	1,382
Adj. R^2	0.747	0.775	0.732	0.764	0.826	0.835

Notes: This table reports the results of our multivariate tests analyzing the relation between ISS assessments issued in year *t* (about compensation paid in year (*t*-1)) and firm accounting performance in year *t*. We estimate Eq. (1) three times: first on the pooled sample (col (1)-(2)), then splitting the sample between December fiscal year-end firms (Columns (3) – (4)) and non-December fiscal year-end firms (Columns (5) – (6)). Columns (1), (3), and (5) relate to the specification of *ISSAssessment* corresponding to the ISS SOP recommendations. Columns (2), (4), and (6) refer to the specification of Eq. (1) where *ISSAssessment* is substituted by each ISS level of concern. All estimations are performed using OLS with standard errors clustered by firm and include industry and year fixed effects. In the specifications related to firms with fiscal year-end not in December, we also include fiscal year month fixed effects. All variables are defined in Appendix A. All continuous variables are winsorized at the 1st and 99th percentiles. The value of the *t*-statistic is reported in parenthesis underneath each coefficient. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Table 6: Predictive Ability of ISS and SOP Vote Agreement vs. Disagreement with respect to Industry-Adjusted ROA

Panel A: Correspondence between ISS SOP Overall Recommendations and SOP Vote Outcomes

ISS recommendations and Say-on-Pay vote outcome		*SOP Vote Outcome*		
		Fail	*Pass*	*Total*
ISS recommendation	*For*	11	11,894	11,905
	Against	227	1,304	1,531
	Total	238	13,198	13,436

Panel B: Multivariate analyses

DV = $AbnROA_{i,t}$	Any Fiscal Year-End (1)	December FYE (2)	Non-Dec FYE (3)
AA_t	-0.011	-0.007	-0.025*
	(-1.52)	(-0.74)	(-1.76)
FA_t	-0.005	-0.003	-0.015*
	(-0.83)	(-0.39)	(-1.77)
Controls	YES	YES	YES
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
FYE Month FE	NO	NO	YES
Clustering by Firm	YES	YES	YES
Wald test: H_0: "AA ≠ FA"	p>0.10	p>0.10	p>0.10
N	6,440	4,880	1,560
Adj. R^2	0.747	0.732	0.826

Notes: This table reports the results of our statistical tests analyzing the relation between ISS/SOP voting disagreement and firm accounting performance in the subsequent year. **Panel A** reports the composition of the combinations of ISS recommendations "for" and "against" with the outcomes of the Say-on-Pay votes for the all the firm-years included in our sample. A Say-on-Pay vote passes ("Pass") when the votes in favor are greater than the required percentage of base, as set by the firm. **Panel B** reports the estimations of Eq. (2), which describes the relation between agreement and disagreement between ISS and shareholders and accounting performance. Column (1) relates to the pooled sample, Column (2) to the firms with December fiscal year, and Column (3) to the firms with non-December fiscal year-end. Agreement and disagreement are defined as follows. When the SOP vote passes and ISS recommends "for", we say that ISS and shareholders agree on the favorable outcome (indicator variable *FF* equal to 1 in this case, and 0 otherwise); when the SOP vote passes and ISS recommends "against", we say that ISS and shareholders disagree on the SOP outcome (indicator variable *FA* equal to 1 in this case, and 0 otherwise); when the SOP vote fails and ISS recommends "against", we say that ISS and shareholders agree on the unfavorable outcome (indicator variable *AA* equal to 1 in this case, and 0 otherwise); cases in which ISS recommends "for" and the SOP vote fails are extremely rare, and dropped from our sample. We estimate Eq. (2) using OLS regressions with standard errors clustered by firm and including industry and year fixed effects. *FF* is the base case included in the intercept. All other variables are defined in Appendix A. All continuous variables are winsorized at the 1st and 99th percentiles. The *t*-statistic are reported in parentheses below each coefficient. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Table 7: Predictive Ability of Agreement vs. Disagreement between ISS and the Big Three Fund Companies with respect to Industry-Adjusted ROA

Panel A: ISS Recommendations and Big Three Mutual Funds' Say-On-Pay Vote Outcomes

		ISS Against		
		No	Yes	Total
Any of the Big Three vote against	No	6,603	391	6,994
	Yes	128	629	757
	Total	6,731	1,020	7,751
Two of the Big Three vote against	No	6,603	391	6,994
	Yes	7	337	344
	Total	6,610	728	7,338

Panel B: Predictive ability of agreement vs. disagreement between ISS and the Big Three Fund Companies

DV = *AbnROA*	Any Big Three			At Least Two of the Big Three		
	Any FYE	December FYE	Non-December FYE	Any FYE	December FYE	Non-December FYE
	(1)	(2)	(3)	(4)	(5)	(6)
AA	-0.006	-0.002	-0.019	-0.012	-0.006	-0.034***
	(-0.93)	(-0.30)	(-1.44)	(-1.54)	(-0.58)	(-2.85)
FA	0.001	0.003	-0.008	0.002	0.004	-0.008
	(0.14)	(0.28)	(-1.09)	(0.16)	(0.29)	(-1.02)
AF	-0.017	-0.014	-0.029**	-0.077**	-0.078**	
	(-1.60)	(-1.06)	(-2.24)	(-2.37)	(-2.30)	
Controls	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
FYE Month FE	NO	NO	YES	NO	NO	YES
Clustering by Firm	YES	YES	YES	YES	YES	YES
Wald Test: H_0: "AA=FA"	p>0.10	p>0.10	p>0.10	p>0.10	p>0.10	p<0.10*
Wald Test: H_0: "FA=AF"	p>0.10	p>0.10	p>0.10	p<0.05**	p<0.05**	p>0.10
Wald Test: H_0: "AA=AF"	p>0.10	p>0.10	p>0.10	p<0.10*	p<0.05**	p<0.01***
N	4,610	3,500	1,110	4,412	3,347	1,065
Adj-R^2	0.733	0.722	0.812	0.735	0.721	0.823

Notes: **Panel A** reports the composition of the combinations between ISS recommendations "for" and "against" and the SOP votes for the Big Three (BlackRock, Vanguard, and State Street). **Panel B** reports the estimations of Eq. (2) restricting the sample to firm/years in which the Big Three mutual funds cast a vote with respect to SOP. In columns (1), (2), and (3) a shareholder vote "Against" corresponds to cases in which *any* of the Big Three votes against the SOP. In columns (4), (5), and (6) we require that at least two of the Big Three vote against the SOP to consider the shareholders to be "Against." Columns (1) and (4)

reflect this restricted sample without distinction between fiscal year-end months, Columns (2) and (5) relate to the subsample of December fiscal year-end firms, and Columns (3) and (6) relate to the non-December fiscal year subsample. *FF* is defined as one when all Big Three fund companies vote in favor of the SOP proposal and ISS recommends "for", and zero otherwise. This category is included in the intercept. *AA* is defined as one when any (or at least two) mutual fund votes against the SOP proposal and ISS recommends "against", and zero otherwise. *FA* is defined as one when all Big Three vote in favor of the SOP proposal but ISS recommends "against", and zero otherwise. *AF* is defined as one when any (or at least two) mutual fund votes against the SOP proposal and ISS recommends "for", and zero otherwise. We estimate the coefficients using OLS regressions with standard errors clustered by firm and include industry and year fixed effects. In Columns 3 and 6 we further control for fiscal year-end month fixed effects. All other variables are defined as indicated in Appendix A. All continuous variables are winsorized at the 1st and 99th percentiles. The value of the *t*-statistic is reported in parenthesis underneath each coefficient. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Table 8: Relation between ISS Compensation Assessments, Low Quality Compensation, and Future Performance

Panel A: Coefficients from OLS regressions of ISS Assessments and Measures of Low-Quality Compensation

	(1) *ISSAgainst* $_t$	(2) *P4PConcern* $_t$	(3) *NPPConcern* $_t$	(4) *PeerGroupConcern* $_t$	(5) *SevCICConcern* $_t$	(6) *CCCommConcern* $_t$
ExcessPay $_t$	0.000***	0.000***	0.000***	0.000***	0.000***	0.000**
LogPerquisites $_t$	0.016***	0.042***	0.056***	0.009**	0.017***	-0.028***
NonPerformancePay $_t$	-0.083***	-0.386***	-0.108***	-0.194***	0.016	0.487***

Panel B: Proxies for Low-Quality Compensation and Future Performance

DV = AbnROA$_t$	(1)	(2)	(3)
ExcessPay $_{(t-1)}$	-0.000***		
	(-4.28)		
LogPerquisite $_{(t-1)}$		-0.004***	
		(-3.23)	
NonPeformancePay $_{(t-1)}$			-0.064***
			(-7.91)
Intercept	0.105***	0.118***	0.117***
	(49.15)	(21.35)	(41.58)
N	7,523	8,071	8,067
Adj-R^2	0.002	0.001	0.008

Notes: **Panel A** reports the coefficients from separate OLS estimations of each ISS compensation assessments in year *t* as a function of proxies for low quality compensation for year *t*. *ExcessPay*, defined as in Core, Guay, and Larcker (2008), is the residual pay from an expected CEO log compensation model that controls for economic determinants such as CEO tenure, firm size, book-to-market of assets, concurrent and lagged stock returns, concurrent and lagged accounting returns, whether the firm belongs to the S&P500, and year and industry controls. *LogPerquisites* is defined as the natural logarithm of other compensation. *NonPerformancePay* is defined as the proportion of total pay that is not related to firm performance (the sum of salary and other pay scaled by the value of the TDC1 field in Execucomp). **Panel B** reports the OLS estimation of the relation between proxies for low quality compensation and future industry-adjusted accounting performance. All continuous variables are winsorized at the 1st and 99th percentile. The value of the *t*-statistic is reported in parenthesis underneath each coefficient. Statistical significance is reported as follows: * p<0.10; ** p<0.05; *** p<0.01.

Table 9: Robustness Tests

Panel A: Entropy Balancing tests

DV = *AbnROA*	Any FYE (1)	December FYE (2)	Non-December FYE (3)
ISSAgainst	-0.009*	-0.007	-0.012*
	(-1.87)	(-1.25)	(-1.74)
Controls	YES	YES	YES
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
FYE Month FE	NO	NO	YES
Clustering by firm	YES	YES	YES
N	8,002	6,176	1,825
R^2	0.662	0.650	0.788

Panel B: Placebo tests

			Full sample			
Variable	N	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
ISSAgainst	1,000	-0.0000157	0.0001058	0.0033443	-0.0002232	0.0001919
t-stat	-0.1482					
			Sample restricted to Dec FYE			
Variable	N	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
ISSAgainst	1,000	0.0002153	0.00013	0.0041097	-0.0000398	0.0004703
t-stat	1.5563					
			Sample restricted to Non-Dec FYE			
Variable	N	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
ISSAgainst	1,000	0.0001652	0.0001452	0.0045909	-0.0001197	0.0004501
t-stat	-1.085					
			Sample restricted to poorly performing firms in prior year			
Variable	N	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
ISSAgainst	1,000	.0000367	.000154	.004869	-.0002654	.0003389
t-stat	0.239					

Notes: This table summarizes our robustness tests. **Panel A** reports the results of the estimation of Eq. (1) on a sample constructed by matching firms on economic and governance characteristics using entropy balancing, by which the control sample (i.e., firms with a "For" ISS Recommendation) is reweighted to force the mean and variance of each matching variable to be the same as in the treatment sample (i.e., firms with "Against" recommendations). The value of the *t*-statistic is reported in parenthesis underneath each coefficient. **Panel B** reports the results of our placebo tests, whereby we randomly assign the value of the variable *ISSAgainst* and estimate Eq. (1) 1,000 times. We report the characteristics of the average coefficient estimated for each of the following samples: pooled sample, sample of firms with December FYE, sample of firms with non-December FYE, sample restricted to firms for which *AbnROA* is below the median in year (*t*-1). All continuous variables are winsorized at the 1st and 99th percentiles. Statistical significance is reported as follows: * p<0.10; ** p<0.05; *** p<0.01.