

Does Proxy Advice Allow Funds to Cast Informed Votes?*

John G. Matsusaka and Chong Shu

University of Southern California and University of Utah

This paper estimates to what extent proxy advice allows funds to vote as if they were informed. A fund's vote is classified as "informed" if the fund accessed the company's proxy statement from the SEC's Edgar website prior to voting. A fund's proxy advisor, if any, is identified from the format of its Form N-PX filing. Our main finding, for the period 2004-2017, is that proxy advice did not result in funds voting as if they were informed – more often than not it pushed them in the opposite direction – and this distorting effect was particularly noticeable for ISS. The finding is robust to several strategies designed to control for endogeneity of acquiring information and seeking proxy advice, including fixed effects and instrumental variables. We also show that advice distorted votes toward policies favored by socially responsible investment (SRI) funds, and provide suggestive evidence consistent with the idea that proxy advisors slanted their recommendations toward the preferences of SRI funds because of pressure from activists.

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* Comments welcome: matsusak@usc.edu and chong.shu@eccles.utah.edu. We received helpful feedback from workshop attendees at the University of Cambridge and USC. We thank USC for financial support.

1. Introduction

The purpose of proxy advice is to allow investors to cast their votes as if they were informed without them having to do the research themselves. How well this works is a matter of considerable consequence now that institutional investors cast a majority of the votes in corporate elections, and their votes are often based on recommendations from proxy advisors. If proxy advice is poor or biased, as critics suggest, then corporate elections will not represent the preferences of investors, and shareholder monitoring will be ineffective.

Assessing whether proxy advice allows funds to vote their preferences is challenging because we do not observe fund preferences independent of the votes they cast. To get around this problem, researchers sometimes assume that funds prefer to maximize firm value, and then test whether proxy advice advances that goal. However, the assumption that funds want advice that is designed to maximize firm value is not necessarily correct, and is almost certainly wrong for socially responsible investment (SRI) funds, a growing segment of the market. SRI funds may be willing to forgo financial returns, at least at the margin, in order to advance nonpecuniary “social” goals, such as environmental protection and human rights (Riedl and Smeets, 2017). In order to assess whether proxy advice helps funds achieve their goals, we need to be able to measure what those goals are.

This paper proposes a strategy for assessing the effectiveness of advice that recognizes the diversity of fund goals. Our conceptual innovation is to focus not on the value consequences of advice or some other a priori goal, but instead on whether advice allows funds to cast the same votes they would have cast had they been independently informed. The concrete research question is then: do funds that receive proxy advice vote in the same way they would have voted if they had independently acquired information? To conduct this exercise requires establishing a baseline for how a fund would have voted if it had been independently informed, and then comparing the baseline with the fund’s vote when it relied on proxy advice. Both steps present measurement challenges.

To establish a baseline for how a fund would have voted if it had been independently informed, we track whether a firm accessed a company’s proxy statement on the SEC’s Edgar website in the weeks prior to a vote. We label funds that accessed Edgar as “informed.” Our use of Edgar access follows Iliev et al. (forthcoming), which supplies corroborating evidence that visiting Edgar is a reasonable measure of being informed. Second, we have to determine which funds received advice from which proxy advisor, and which voted independently. The identity of a

fund's proxy advisor, if any, is not publicly disclosed. We use the method developed in Shu (2021) to identify the customers of ISS and Glass Lewis from the format of a fund's N-PX form filed with the SEC. Shu (2021) provides corroborating evidence that this method accurately reveals the customers of the two main proxy advisory firms, Institutional Shareholder Services (ISS) and Glass Lewis.

We examine the votes cast by 155 mutual funds on over 6 million corporate election items during 2004-2017. Our core analysis focuses on 10 prominent issues that have been voted on repeatedly at many companies (for example, proxy access, board declassification, and disclosure of political contributions). Funds that acquired information (but not proxy advice) were less likely to vote in favor than uninformed funds on nine out of 10 issues. We compare this "effect of information" with the effect of receiving proxy advice, defined as the difference in voting between advised and unadvised funds. Our main finding is that ISS advice led funds to shift their votes in the opposite direction as information acquisition did on eight of 10 issues, suggesting that ISS recommendations distorted voting. Glass Lewis advice appears to have better aligned with fund preferences: on seven issues it shifted fund votes in the same direction as their informed votes.

There are two critical issues regarding causality in interpreting these findings. One pertains to what we call the "information effect" – whether information caused funds to vote differently, or if funds sought information because they were inclined to vote differently to begin with. We address this endogeneity concern in several ways. To net out fund-specific preferences, we estimate regressions that control for fund-year fixed effects. To allow for the possibility that funds chose to acquire information on companies/proposals for which their preferences were different, we estimate the regressions with proposal-specific fixed effects. Finally, we implement three instrumental variable strategies, two of them novel. The first is based on the idea that if a company had a contentious item to be decided, a fund might have visited Edgar to learn about that item, and in the process ended up learning about other items on the proxy statement. Our instrument for being informed is a dummy variable for whether there was a contentious item (other than the proposal) to be decided. The exclusion restriction is that the presence of a contentious item did not affect a fund's preferences over the other items on the proxy statement. Our second instrument is the number of items on the proxy statement, with the intuition that demand for information is higher when there are many rather than few items to be decided. The third instrument is a dummy for votes during the busy proxy season, following Iliev et al. (forthcoming), with the logic that the opportunity cost of acquiring information is higher during

the busy season. We find that the difference in voting between informed and uninformed funds is robust to all three of these exercises, providing a basis for interpreting it as a causal effect.

The other causal concern pertains to the “advice effect” – whether advised funds voted differently because of advice, or if they sought advice because they were inclined to vote differently. To address this issue, we estimate the main regressions with fund-year fixed effects, and allow votes to depend on the actual recommendations from a fund’s proxy advisor. The fixed effects remove all fund selection effects. We find a strong connection between a fund’s votes and its advisor’s recommendations, indicating that it is the recommendations themselves, and not the mere fact of being an advice customer, that influences voting decisions.

A question raised by these findings is why proxy advisory firms would give advice that caused funds to vote contrary to their informed preferences, which we label “distorted” advice for short. We offer several pieces of evidence that point toward the explanation that it was a deliberate decision by advisory firms in response to pressure from SRI activists, at least for ISS. We show that SRI funds were significantly more supportive of the 10 issues than non-SRI funds, whether they were informed or not, and that ISS recommendations caused funds to shift their votes in the direction preferred by SRI funds. We also show that a larger fraction of ISS’s non-SRI customers (compared to Glass Lewis) “robo-vote”, meaning they mechanically vote according to ISS’s recommendations on every issue. If an activist wanted to swing a corporate election, influencing ISS’s recommendation would provide a lot of leverage. This story comports with elements of the model developed in Matsusaka and Shu (2021), which shows why proxy advisory firms might slant advice toward the preferences of SRI funds, even if SRI funds are a minor segment of their customers. Intuitively, catering to SRI funds in this way can be profit-maximizing for proxy advisors if SRI funds care a lot about vote recommendations while non-SRI funds are less concerned about voting accurately and more concerned about acquiring the advisor’s vote execution services and a safe harbor from SEC fiduciary regulations.

Our study contributes to a growing literature on proxy advice and shareholder voting. Several studies have now established that ISS recommendations swing votes. Cai et al. (2009), Choi et al. (2010), Ertimur et al. (2013), and Larcker et al. (2015) find that ISS recommendations in favor of a proposal are associated with about 6 to 25 percent more support; Malenko and Shen (2016), exploiting a discontinuity, find that ISS recommendation shifted support for say-on-pay proposals by about 25 percent in 2010; and Shu (2021), explicitly linking advisors and advisees, finds that negative recommendations from ISS and Glass Lewis reduced support by 21 and 22

percent, respectively. We extend this stream of research by providing evidence on whether these voting shifts are helping funds achieve their goals or not.

Our findings reinforce the skepticism about proxy advice that runs through much of the literature. Empirical research on whether proxy advice helps funds vote their interests is limited. Several studies investigate the connection between proxy advisor recommendations and firm value, many finding that proxy advice reduces value (Larcker et al., 2013, 2015; Iliev and Lowry, 2015) but not all (Albuquerque et al., 2021). Cabezón (2021) finds that proxy advisor recommendations induce excessive standardization in executive compensation contracts. While the effect of proxy advice on firm value is important to know, it does not speak to the question of whether proxy advice helps funds advance their own interests. For example, SRI funds may be willing to adopt value-reducing executive compensation plans if they place weight on sustainability metrics. Iliev et al. (forthcoming) *defines* voting to be informed if a fund votes against the recommendation of its proxy advisor – in our approach whether agreeing with a proxy advisors reflects informed voting or not is something to be tested empirically.

Our study is also related to Bolton et al. (2020), which draw on methods from the political science literature to estimate the preferences of funds based on their voting behavior. Bolton et al. (2020) assume that fund votes reflect their underlying preferences, in effect assuming that they are cast with full information. Our study can be seen as examining their assumption that votes reflect underlying preferences.¹ Our finding that ISS appears to push return-only funds to vote against their informed interests suggests that votes are not an accurate indicator of fund preferences, and the estimated preferences in Bolton et al. (2020) are partially induced by proxy advisor recommendations.

Finally, our study is related to a literature in political science that attempts to determine if voters in public sector elections are able to cast votes that reflect their preferences by relying on recommendations from advisors (Lupia, 1994; Lupia and McCubbins, 1998). From that literature, we draw the conceptual distinction between being informed and casting an informed vote.

¹ To be more precise, Bolton et al. (2020) can be seen as producing estimates of the reduced-form preferences that are induced by proxy advice, limited information, pressure, etc. Our evidence speaks to whether we should interpret their findings as the true underlying preferences, or preferences that are induced by proxy advice and other information frictions.

2. Framework and Data

A. Conceptual Framework

To explain our conceptual framework, it is helpful to develop a bit of notation. We assume that funds have objectives that include financial returns and in some cases social goals. When voting, funds are not certain how the different outcomes will affect their objectives, however. To reduce uncertainty, they acquire information and/or advice.

Formally, an election item i (proposal or director election) can be approved (A) or fail (F). Fund j 's payoff from its vote choice $v_{ij} \in \{A, F\}$ depends on the unknown state of the world. Funds can acquire information or advice in the form of a stochastic signal σ that updates their beliefs about the state of the world. Since the signal is stochastic, it could push a fund either toward support or opposition on a proposal, but in expectation makes the fund's vote more likely to reflect its interest. Let $P_{ij}(\sigma)$ be the probability that fund j supports proposal i , conditional on acquiring signal σ .

We focus on three potential signal types: no information (σ_0), collecting information from Edgar (σ_E), and receiving a recommendation from a proxy advisor (σ_{ADV}), where $ADV \in \{ISS, GL\}$ for ISS or Glass Lewis. By "no information" we have in mind a fund's baseline level of information that arrives at no cost. For example, a fund might have a view on the merits of classified boards before visiting Edgar or receiving proxy advice. By "advice" we mean not just receiving a proxy advisor's bottom line voting recommendation, but also its reports and analysis. A fund can acquire more than one type of signal.

If fund j acquires information from Edgar, its probability of voting in favor shifts from $P_{ij}(\sigma_0)$ to $P_{ij}(\sigma_E)$. We refer to this as the effect of collecting information. If it acquires advice (but not information), its probability of voting in favor shifts to $P_{ij}(\sigma_{ADV})$. If advice functions as a perfect substitute for collecting information, then $P_{ij}(\sigma_E) = P_{ij}(\sigma_{ADV})$. This is the basic intuition for our analysis.

Because $P_{ij}(\sigma)$ cannot be observed on an individual fund level, we aggregate by issue. That is, we measure the probability of voting yes on issue i by $P_i(\sigma) = \left(\frac{1}{J}\right) \sum_{j=1}^J I(v_{ij} = A)$, where $j = 1 \dots J$ are funds with signal σ .

For much of the analysis, we group proposals into 10 broad types, such as board declassification, independent chair, and so forth. Our working assumption is that although proposal details may vary, a fund's preference is the same for all proposals of that type. For

example, we expect that if a fund favors allowing shareholders that own 10 percent of the stock to call a special meeting, it will favor allowing shareholders that own 15 percent to call a special meeting as well. For the first part of the analysis, we are also implicitly assuming that preferences on a given topic do not vary with the identity of the company holding the vote; that is, if a fund supports special meetings at company X, we assume it would support special meetings at company Y. Because this one-size-fits-all assumption is debatable, we also perform additional analysis that allows for issue preferences to vary after reporting the main results.

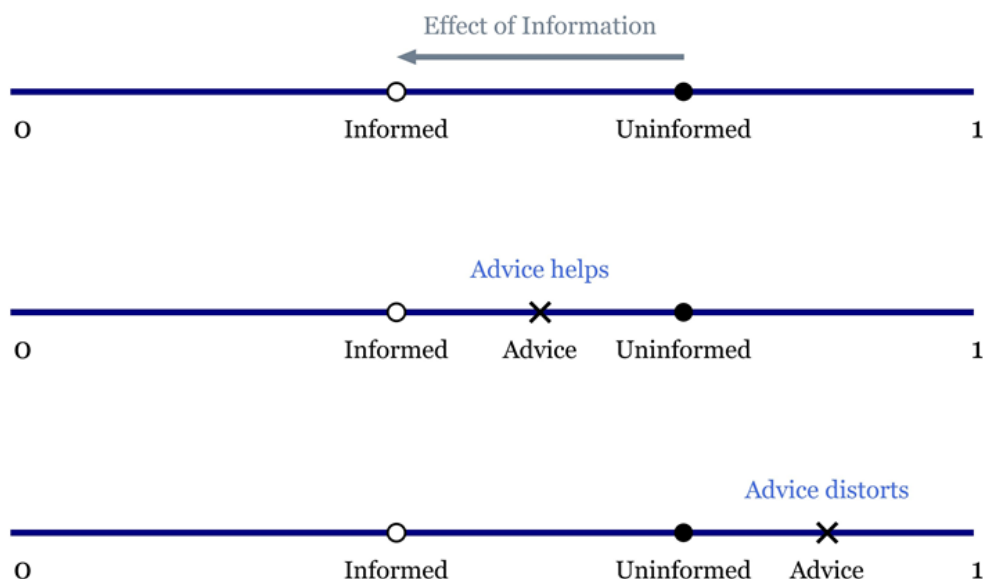
Figure 1 provides a graphical illustration of our basic research approach. The black circles show the percentage of uninformed funds that voted in support of a proposal of a certain type and the open circles show the percentage of informed funds that voted in support. We interpret the gap in the top line as the effect of information, that is $P_i(\sigma_E) - P_i(\sigma_0)$ in our notation. The \times markers in the other two lines show the fraction of favorable votes from funds that acquired proxy advice. If proxy advice replicates self-information, then $P_i(\sigma_{ADV}) = P_i(\sigma_0)$, and the proximity to this condition is an indicator of the quality of advice. The middle line is an example in which proxy advice moves fund votes in the same direction as information. This is the good case: we would say that advice helps funds to vote as if they were informed (although not completely). In the bottom line, proxy advice distorts the voting decision, causing funds to vote contrary to their informed preference. This is the bad case, where proxy advice is worse than no information at all. Our empirical strategy is to distinguish whether actual voting patterns look more like helping or distorting cases.

B. Data

Votes. Our analysis focuses on issue elections, by which we mean decisions relating to corporate policies and governance, but we also look at director and say-on-pay elections after the main results. Fund voting choices were taken from Form N-PX filings over 2007-2017, as tabulated by ISS Voting Analytics.² Because we do not observe the number of shares held by a fund, we do not know the number of votes cast by an individual fund; our unit of observation is then the vote

² In some cases, funds reported votes back to 2004, but coverage was sparse before 2006.

Figure 1. Effect of Information and Advice



choice of a particular fund on a particular voting item, which we call a “fund-vote” for short (which is to say that each fund has one “fund-vote” in each election, regardless of the number of shares it holds). We exclude votes on routine or procedural matters, such as whether to adjourn, approve the financial statements, and ratify the auditors. We aggregate votes to the fund-family level in a way that is common in the literature (e.g., Bolton et al. (2020) and Iliev et al. (forthcoming)): first, fund-level observations were aggregated to the level of CIK identifier; then using $\text{CIK} \times \text{year}$ as the identifier, we merged CIK-level voting data with the CRSP Mutual Fund dataset to recover each CIK’s fund family and characteristics; finally, we aggregated CIK-level observations to the fund-family level using the CRSP identifier for fund families (*mgmt_cd*). We classify a fund’s vote on a proposal as being “in favor” or “against.” For director elections, withheld votes are classified as “against.”

Informed Funds. We follow Iliev et al. (forthcoming) in classifying a fund family as “informed” about a company in a year if it visited and downloaded the company’s proxy statement from the SEC’s Edgar website before the meeting. Proxy statements are usually posted 2-3 months prior to the meeting. The visit data come from the Edgar server log file, a record of all activity on the system, which includes each viewer’s partially anonymized IP address, the time of the view, and the accession number of the viewed file. To map partially anonymized IP addresses to fund families, we deanonymize IP addresses using the cipher provided by Chen et al. (2020) and then

map the full IP addresses to organization names using linking datasets provided by MaxMind and American Registry of Internet Numbers (ARIN). To match a proxy statement's accession number to an annual meeting, we scrape the proxy statement's header file to get its CIK number and Period of Report.³ Then, we match CIK-Period of Report with an annual meeting's CUSIP-meeting date. If there is no record of a fund-family in the Edgar log file in a given year, we omit it from the analysis for that year, similar to Iliev et al. (forthcoming), since we cannot distinguish if it failed to visit Edgar or if we are unable to identify its address.⁴

Iliev et al. (forthcoming) offer evidence in support of the idea that funds visiting Edgar were in fact more informed. Among other things, they show that funds were more likely to visit Edgar before contentious elections, and that if they visited Edgar they were more likely to take a position against management and divest shares (suggesting more monitoring). Shareholders typically vote on multiple items in a corporate election, including directors, management proposals, and shareholder proposals. A limitation of the Edgar visit measure is that it cannot be tied to any specific item in the election. Our premise is that collecting information on a company provides knowledge that may be useful for voting on all of the issues on the proxy. Another limitation is that funds may access company information through other sources, such as Bloomberg or company websites. To the extent that Edgar information is irrelevant, or funds acquire information without visiting Edgar, it will work against finding information effects in our context.

Funds Receiving Proxy Advice. Information about whether a fund received proxy advice, and if so, from which advisor, is not publicly available. We linked funds to proxy advisors using the method developed by Shu (2021), which is based on the formatting of a fund's Form N-PX filed with the SEC. All funds must file Form N-PX, but they have discretion on how to tabulate, format, and characterize their votes and the issues on which they vote. Most funds outsource preparation of their filings to a voting platform provider. Shu (2021) observes that certain details of the formatting reveal the proxy advisor that helped file the form, and provide confirmatory evidence that the format accurately identifies customers of ISS and Glass Lewis. This method

³ In a proxy statement, the "Period of Report" is the meeting date. See <https://www.sec.gov/info/edgar/edgarfm-vol2-v5.pdf>.

⁴ Iliev et al. (forthcoming) drop a fund-family in a given quarter if it did not visit Edgar for at least 1 percent of its portfolio in that quarter.

assigns a fund to at most one proxy advisor; it cannot detect if a fund received advice from multiple proxy advisors.⁵

Table 1 describes the number of fund-votes by type of signal, σ . About 10 percent of the funds that did not receive advice chose to become informed by visiting Edgar, giving 132,200 observations in our benchmark group. Most of the votes that are cast concern director elections, about 86 percent of the total, compared to 6 percent on shareholder and management proposals and 8 percent on say-on-pay proposals.

We classify shareholder and management proposals into 10 broad issue topics/categories – those that were the subject of at least 10,000 fund-votes in our data – and for which the meaning of yes and no votes was consistent within the category. We did this by examining the proposal descriptions in the Voting Analytics database and then manually assigning them to a category.⁶ Table 2 lists and defines the 10 issue types, the number of items, the number of fund-votes, the percentage of proposals that were sponsored by shareholders, and the percent of fund-votes in favor. The most common topic was board declassification (30,944 votes on 1,223 items), followed by independent chair (20,674 on 545 items), and removing supermajority provisions (21,263 on 636 items). Almost all proposals related to lobbying, sustainability, independent chair, and political contributions were sponsored by shareholders. Most proposals related to board declassification and supermajority provisions came from management. Board declassification and removal of supermajority provisions were the most popular, attracting 97 percent of fund-votes in support. Sustainability, lobbying, and political contributions were least popular, with only a little more than 30 percent of fund-votes in support.

We use two measures to gauge the importance of “socially responsible investing” (SRI) for a fund family. Our first measure is based on fund preferences estimated in Bolton et al. (2020). Bolton et al. (2020) use institutional investors’ votes to recover their preferences in a two-dimensional issue space, which can be interpreted as social/environment-friendliness and

⁵ A small fraction of funds filed two N-PX forms for a given year using different proxy advisors. We deleted these observations.

⁶ Manual assignment allowed proposals that were similar but titled differently in the data to be combined, for example, “Require a Majority Vote” and “Company Specific – Majority Vote.” Poison pill proposals were not included because often the data did not indicate if the proposal was to remove, adopt, or prohibit a poison pill. Sustainability proposals covered an array of specific topics, but were all concerned with reducing pollution, abating climate change, and generally minimizing impact on the environment.

corporate governance strictness. We use a fund's estimated ideal point along the social/environment dimension as one measure of its SRI orientation. Our second measure is constructed by classifying a fund as SRI if its name contains any of the following words or phrases: ESG, social, climate, environment, impact, responsible, carbon, and fossil. For each fund family, our measure is the percentage of total net assets managed by its SRI funds. The two classifications are correlated, and seem reasonable, assigning a high score to obvious examples like Calvert and Domini Social Investment.

ISS's recommendations were taken from the ISS Voting Analytics dataset. To identify Glass Lewis's recommendations, we made a Freedom of Information Act request to a large public pension. This allowed us to determine Glass Lewis's recommendations for a little over half of the votes in our data, all of them during the period 2008-2017.

Intersecting the different data sources left a final data set with 6 million votes cast by 155 fund families.

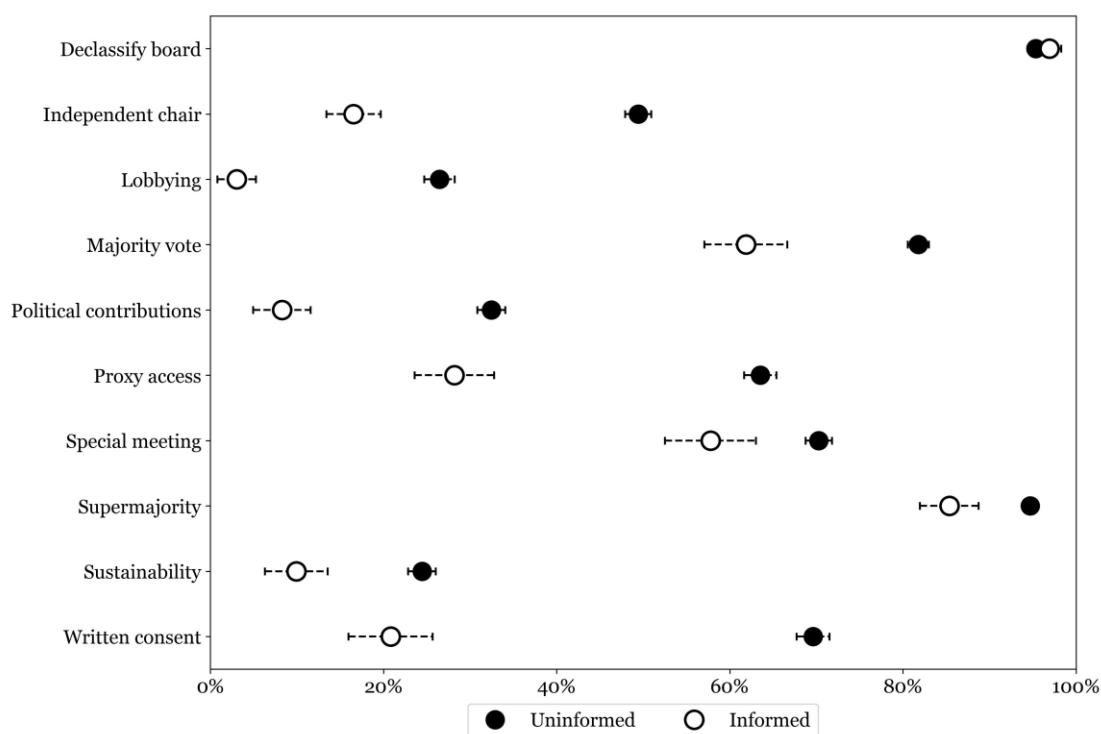
3. Evidence

A. *Main Pattern*

We begin with a nonparametric depiction of our main finding. Figure 2 shows the percentage of funds that voted in favor of propositions related to the 10 main issues, with 95 percent confidence intervals indicated. The solid circles show voting by funds that did not collect information from Edgar and did not receive advice from ISS or Glass Lewis, that is, "uninformed" funds with signal σ_0 in our notation. Some proposals, such as board declassification and removal of supermajority provisions, were extremely popular, attracting over 95 percent of fund-votes in favor. On the other end of the spectrum, proposals related to sustainability and lobbying received less than 30 percent of votes in favor. This wide variation indicates that although we refer to these funds as "uninformed," they have already acquired some information that influences their voting inclinations.

The hollow circles in Figure 2 show the proportion of informed but not advised funds, funds with σ_E in our notation, that voted in favor. Informed funds voted differently than uninformed funds, and the difference was usually sizeable. Except for board declassification, where the difference was negligible, informed funds were less likely than uninformed funds to support a proposal on any of these topics. Across the nine issues with a difference, the mean gap between informed and uninformed funds was 24.5 percent. We have not yet established causality,

Figure 2. Votes in Favor by Informed and Uninformed Funds

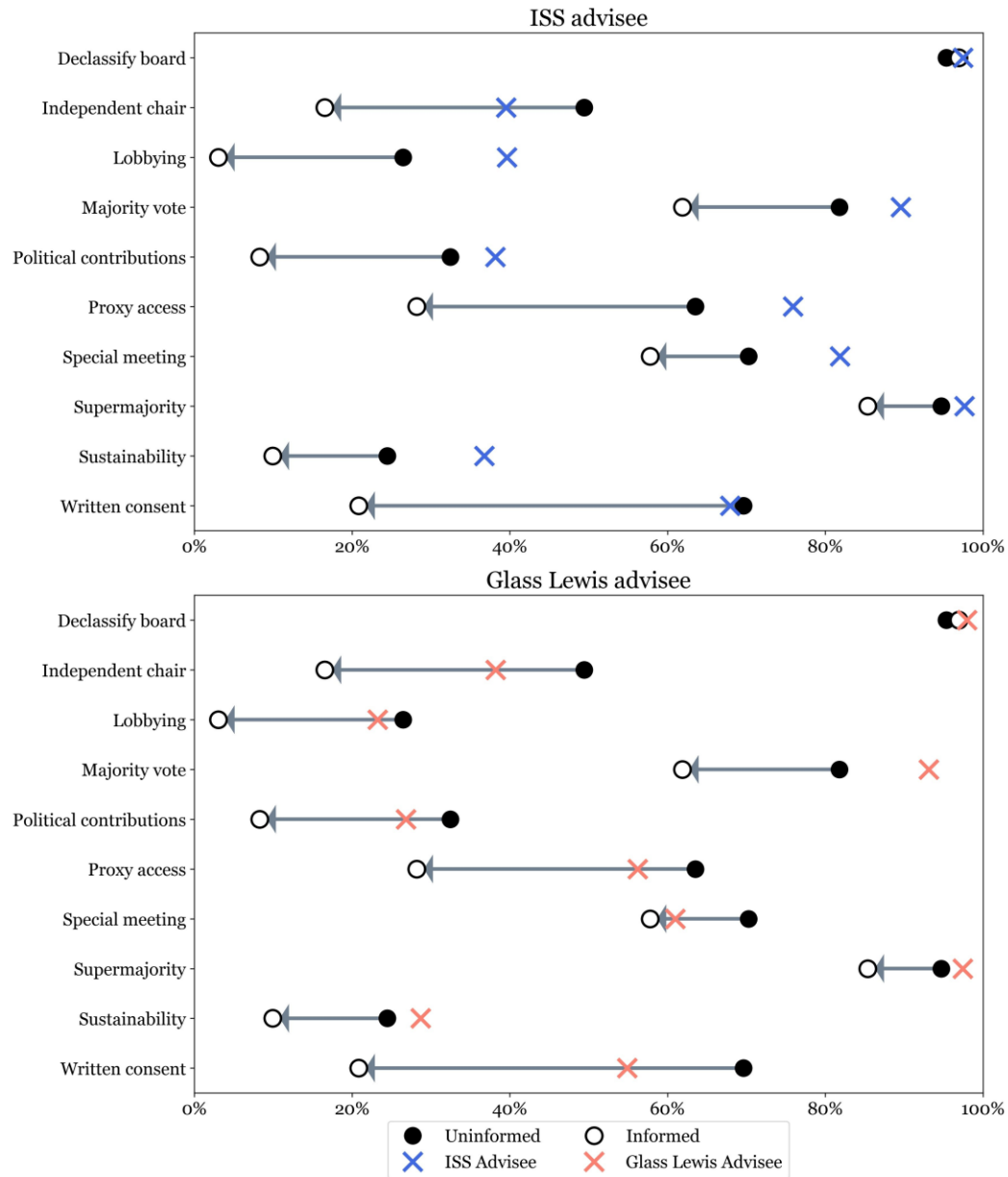


but the gaps suggest that acquiring information led funds to become less supportive of proposals on these topics. Since management typically opposed these proposals (except for supermajority and board declassification), an alternative description of the gaps is that information led funds to vote more in accord with management recommendations.

Figure 3 shows the voting patterns for funds that received advice from ISS and Glass Lewis but did not collect information, superimposed on voting patterns for unadvised funds. Considering the top panel, ISS customers, there is little evidence that ISS advisees were able to replicate the voting behavior of informed funds. Independent chair proposals offer perhaps the best case, where ISS advice seems to have moved voting about one-third of the way in the right direction. Nor did ISS customers vote as if they were uninformed (except perhaps for proposals on written consent), which would be the case if ISS advice was useless. The striking finding is that ISS advice seemed to move voting in the *wrong* direction on seven issues.

Glass Lewis advice presents a less worrisome picture. On six issues, its customers moved in the same direction as informed funds, and for special meetings, its customers voted almost the same as informed funds. Nevertheless, Glass Lewis advice was associated with distorted voting on three issues.

Figure 3. Votes in Favor by Informed, Uninformed, and Advised



On the face of it, these patterns are not encouraging about the quality of proxy advice. Before drawing any conclusions, however, we need to examine a central interpretative issue. Because the decision to acquire information and advice is endogenous, it is possible that the differences in voting behavior are due to selection on preferences – funds that acquire information or advice have different preferences from the beginning. The next section presents a battery of tests to assess whether and to what extent the differences in Figure 3 can be attributed to selection.

B. Baseline Regressions

Our basic regression is

$$(1) \quad \text{VoteYes}_{fpt} = \beta_0 + \beta_1 \cdot (\text{INF} = 1)_{fpt} + \beta_2 \cdot (\text{ISS} = 1)_{fpt} + \beta_3 \cdot (\text{GL} = 1)_{fpt} + e_{fpt},$$

where f indexes a fund, p indexes a proposal, and t indexes a year, VoteYes is a dummy equal to one if a fund voted in favor of a proposal, INF is a dummy equal to one if a fund visited a company's Edgar site, and ISS and GL are dummies for ISS and Glass Lewis customers. In this setup, we would like to interpret β_1 as the effect of information, β_2 as the effect of ISS advice, β_3 as the effect of Glass Lewis advice. We shall introduce various fixed effects for identification purposes, but start with the simplest regressions to establish a baseline. Our theoretical framework implies that we should also introduce an interaction effect between information and advice (that is, allowing the effect of information to vary between advised and unadvised funds). For ease of exposition, we begin with the simpler and more transparent specification, and present interaction results later.

Panel A of Table 3 reports the OLS coefficients for (1) with no fixed effects. The results are consistent with those of Figure 3. Information made funds less supportive of proposals on nine of the 10 topics (all of the information coefficients are statistically significant), with board classification the exception. The drop in support when informed (excluding board declassification) ranges from -2 percent (supermajority) to -27 percent (written consent). ISS advice moved votes in the "correct" direction on only two issues. Glass Lewis advice moved votes in the "correct" direction on seven issues, and three of them are statistically significant.

C. Endogeneity of Information

In terms of interpreting the information coefficient as a causal effect, there are two endogeneity concerns. First, funds might have chosen to visit Edgar because they were concerned about a specific proposal; the lower support from "informed" funds would then be a reflection of their prior suspicions rather than information. We address this possibility by including proposal fixed effects in the regressions. Panel B of Table 3 contains the estimates. The information coefficients are quite similar to those in Panel A, indicating that selection on proposals is not driving the information difference.

The other endogeneity concern is that funds that visited Edgar might have had different preferences or information to begin with than funds that did not visit Edgar. For example, we expect Edgar visitors to be larger, actively managed, and so on. We address this possibility by including fund-year fixed effects. The Edgar coefficient can then be interpreted as the effect of information within a fund on a given issue in a given year. This rather demanding specification, which includes over 800 fixed effects for some issues, runs the risk of stripping out too much, but it provides a sense of the conservative boundary. Panel C of Table 3 reports the estimates. Because proxy advice is fixed for a fund in a given year, we cannot include the advice variables. The magnitude of the information coefficients falls in all regressions, but the overall pattern is similar: nine coefficients are negative, eight of them statistically different from zero. Even with this demanding specification, there is evidence that information reduced a fund's support for most of these issues.

To give additional confidence in the causal interpretation of Edgar information, we also conduct instrumental variables analyses. We explore three different instruments, one in each column of Table 4. Two of the instruments are new to the literature. In addition to providing insight on robustness, we offer these instruments as options for other research that may follow.

Instrument (1) is an indicator for whether there was a contentious proposal to be decided at the meeting, other than the proposal in question. A proposal is defined as having been contentious if either ISS or Glass Lewis issued a recommendation at odds with management's recommendation. In our sample, 15 percent of proposals were contentious so defined. The idea is that if there was a contentious matter on the agenda, a fund was more likely to visit Edgar to learn about that matter, and in the process more likely to have learned about the proposal of interest. In the sample, 49 percent of proposals are in the annual meetings where there was another contentious proposal. To be a valid instrument, it must be that having a contentious matter on the proxy makes funds more likely to download a company's Edgar information. The exclusion restriction, which is assumed to hold, is that having a contentious item on the agenda does not directly affect how a fund would vote on other proposals. It seems reasonable to expect, for example, that having a contentious direct election does not change a fund's preferences on an environmental proposal.⁷

⁷ The estimates are robust to defining contentiousness as disagreement between ISS and management; between Glass Lewis and management; or between both ISS and Glass Lewis and management. We also

Instrument (2) is the number of proposals on the proxy statement, expressed as a logarithm. The number of proposals ranged from 1 to 98, with a mean of 10, in our data.⁸ The idea is that with more proposals to be decided, a fund is more likely to visit Edgar because its demand for information is higher. The merits of any specific proposal, however, should not depend on the number of proposals.

The final instrument (3) is a dummy for April, May, and June of each year, the busiest months for shareholder meetings. We draw this instrument from Iliev et al. (forthcoming), which argues that it functions like a shock to the cost of acquiring information: because so many votes must be cast during the busy season, the opportunity cost of acquiring information about any given item is higher, and a fund is less likely to download a specific company's information from Edgar. In our sample, 79 percent of fund-votes were cast in those three months.

The regressions in Table 4 pool votes across all 10 issues, and include issue and year dummies. The top panel reports the first-stage estimates. All three instruments predict Edgar visits in the direction expected, and their *F*-statistic exceeds 10, the threshold for weak instruments. The bottom panel reports the second-stage estimates. The coefficients on the information variable are negative and statistically different from zero for all three instruments; they also jump quite a bit in magnitude. This lends further support to the idea that information causes funds to reduce support on these 10 issues.

D. Endogeneity of Advice

In terms of the proxy advice coefficientst, the main endogeneity concern is that funds may self-select into receiving proxy advice based on their underlying preferences. It could be that ISS customers are more inclined to support these issues than other funds and that ISS advice itself had little or no effect on their votes.

explored instruments for *director* contentiousness based on ISS withholding support (Brochet et al., forthcoming) or directors receiving a high percentage of withheld votes, but the results were quite sensitive to specification and we concluded these were not reliable estimates for our purpose.

⁸ The instance of 98 items was from Enstar Group Limited in 2009, which asked shareholders to approve 90+ directors for subsidiaries. We use a log specification because the distribution is right-skewed. The findings are robust to a linear specification, and to winsorizing values in excess of 25. The findings are also robust to controlling for firm size, which partially accounts for the possibility that the number of proposals proxies for firm size.

We can examine a stark version of this hypothesis – the ISS and Glass Lewis coefficients are entirely due to pre-existing fund preferences – using variation in proxy advisor recommendations. Specifically, we estimate a version of (1) that includes fund-year fixed effects, and in addition include dummy variables for whether ISS and Glass Lewis recommended voting in support. By including fund-year fixed effects, the regressions remove all voting tendencies that result from funds selecting into advisors. The coefficients on the recommendation variables reveal responsiveness to recommendations holding constant whether a fund receives advice and if so, from which advisory firm.

Table 5 reports the estimates. Both ISS and Glass Lewis recommendations appear to have carried weight with their customers. ISS customers were 24 to 61 percent more likely to vote in favor if ISS was in support, and Glass Lewis customers were 11 to 43 percent more likely to vote yes if Glass Lewis was in support. All of the support coefficients are positive and statistically significant. Interestingly, ISS recommendations appear to have been followed by its customers more often than Glass Lewis recommendations were followed by its customers. The important takeaway here is that the different voting behavior of proxy advice customers is more than a selection effect – the content of the recommendations they received matters. The finding that proxy advice influences votes has also been shown in several other studies, as discussed above.

While Table 5 establishes that the voting behavior of proxy advice customers depends on proxy advisor recommendations and is not simply a selection effect, this does not imply that proxy advice is distorting. Whether proxy advice helps or distorts depends on the nature of the recommendations themselves. Given that funds follow proxy advice, it is conceivable that proxy advisors could help if their recommendations were aligned with the preferences of informed funds. We thus need to assess whether ISS and Glass Lewis recommendations are helping or distorting. To do this, we estimate a counterfactual version of (1) in which, instead of using the actual votes cast by advised funds, we use the votes recommended by their advisors. That is, we estimate how they would have voted if they had mechanically followed the advice they received.

Table 6 presents the regressions. For every issue and both proxy advisors (with one exception), following proxy advisor recommendations increased the likelihood of voting in favor, and thus distorted the voting decision. The ISS and Glass Lewis coefficients are statistically different from zero in every case but one, and for some issues the magnitudes are sizeable. These estimates indicate that the distorting nature of proxy advice is “baked into” the recommendations themselves. Together with evidence that funds are influenced by proxy advice, this establishes

that the advice provided by ISS, and sometimes Glass Lewis, distorted voting decisions away from the choices that would have been made by informed funds.

E. Robustness to the One-Size-Fits-All Assumption

The analysis to this point pools proposals into ten different topics. By doing so, we implicitly assume that funds' preferences on a given topic do not vary with the company's identity. One could question this "one-size-fits-all" assumption -- investors may consider an environmental proposal desirable at one company but not another, for example.

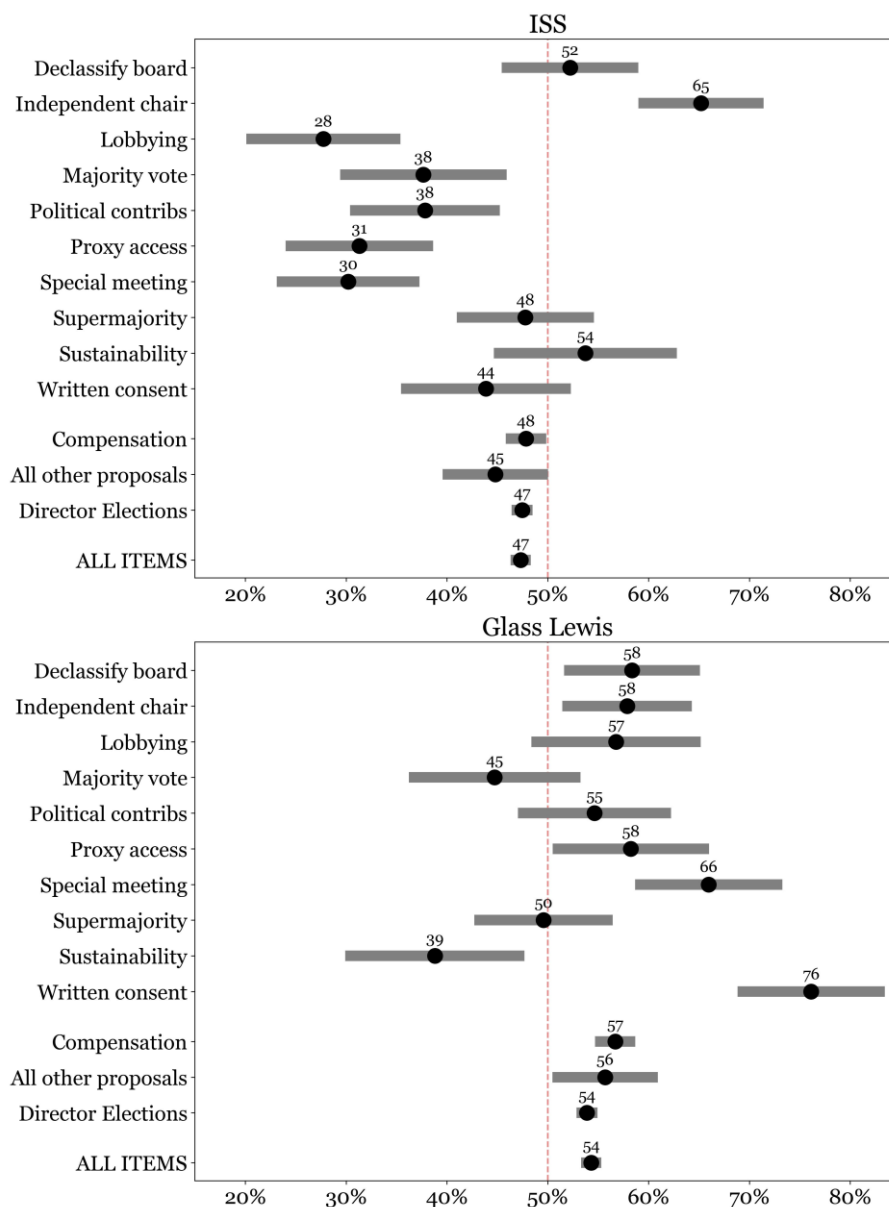
Here we address this concern by allowing a fund's support for an item to be completely independent from its support from any other item. We do this by estimating equation (1) proposal-by-proposal, producing estimates of β_1 , β_2 , and β_3 for each proposal. Then we compare the sign of the estimated coefficient on the Edgar dummy, $\hat{\beta}_1$, with the signs of the estimated coefficients on advice, $\hat{\beta}_2$ and $\hat{\beta}_3$ for each proposal. If the information and advice coefficients have the same sign, that is, advice moves voting in the same direction as information, we say that "advice helped" on that item.⁹

Figure 4 reports the percentage of proposals in which ISS and Glass Lewis advice helped, as have defined it. The shaded bars are 95 percent confidence intervals. The top of each panel examines the 10 issues that have been our focus so far. ISS advice distorted voting seven issues; on five issues the percent helped is statistically less than 0.5, and for only one issue (independent chair) is it statistically greater than 0.5. ISS advice most often distorted on lobbying proposals, 72 percent of the time. Glass Lewis advice performed better; it helped voting on seven issues, and the help percentage was statistically greater than 0.5 for five issues. Glass Lewis advice was statistically below 0.5 for only one issue, sustainability. This evidence tends to reinforce the evidence from above – ISS advice, if anything, seems to have distorted voting, while Glass Lewis advice was moderately helpful.

The bottom part of each panel uses the same approach to extend the analysis beyond the 10 common issues we have been emphasizing. If we look at compensation-related proposals, ISS

⁹ We exclude proposals in which there were fewer than three votes from ISS customers, Glass Lewis customers, or informed investors, because their β coefficients are likely to be noisy.

Figure 4. Percent of Proposals in Which Advice Helped



advice was helpful in 48 percent of cases and Glass Lewis was helpful in 57 percent of cases; both percentages are statistically different from 50 percent. If we look at all other proposals, ISS was helpful 45 percent of the time and Glass Lewis was helpful 57 percent of the time. For director elections, which vastly outnumber proposals, ISS advice was helpful in 47 percent of cases and Glass Lewis advice was helpful in 54 percent of cases; both differences are statistically different from 50 percent. Finally, if we consider all items (proposals on all topics and director elections),

ISS advice helped 47 percent of the time and Glass Lewis advice helped 54 percent of the time, both statistically different from 50 percent.

F. Different Information Effects for Advised and Unadvised Funds

Our empirical specification (1) assumes that the effect of information is the same for all funds. We might expect the effect to be different for advised and unadvised funds. In particular, we might wonder if advised funds are less responsive to their own information than unadvised funds. If they find the recommendations of their advisors compelling, they may even ignore their own information. To examine these possibilities, we estimate a variant of our baseline regression that distinguishes the three signals: informed only, advised only, and informed and advised (essentially adding an interaction term between information and advice):

$$(2) \quad \text{VoteYes}_{f,p,t} = \beta_0 + \beta_1 \cdot (ADV = 0) \cdot (INF = 1)_{fpt} + \beta_2 \cdot (ADV = 1) + \beta_3 \cdot (ADV = 1) \cdot (INF = 1)_{fpt} + e_{fpt},$$

where *INF* is a dummy if a fund visited Edgar, and *ADV* is a dummy for ISS or Glass Lewis customers. In this specification, β_1 is the effect of information on unadvised funds, and β_3 is the effect of information on advised funds.

Table 7 reports the regressions. The coefficients on informed and unadvised, which indicate the effect of information on unadvised funds, are all negative and statistically significant, with the usual exception of board declassification votes. The magnitudes are considerably larger than those in Table 3, indicating the information had a particularly large effect on unadvised funds. The coefficients on ISS and informed are negative on eight issues, and statistically so in six cases, ranging from -7 percent to -21 percent. Information also caused ISS customers to lose support for most of these proposals. The coefficients on Glass Lewis and informed are negative in six cases, statistically so in five cases ranging from -11 to -22 percent. The nonnegative coefficients range from 0.0 to 0.02 and are never statistically different from zero. Information moved Glass Lewis customers against half of the issues, and had no effect on the others.

The upshot is that information tended to reduce support for nine of these 10 issues, regardless of whether a fund was advised or not. The effect of information was smaller on proxy advice customers than unadvised funds. There is little evidence for the idea that funds trust proxy advice more than their own information.

4. Why Is Advice Distorting?

The finding begs the question of why ISS (and to a lesser extent Glass Lewis) advice was often distorting. One possibility is that our interpretation is incorrect: it was not advice that was distorting but visiting Edgar. From this perspective, advice was correcting systematic mistakes that funds made when collecting information on their own. This explanation seems implausible: it assumes a high degree of ignorance on the part of funds – not only were they making mistakes in reading the evidence but they were making the same mistakes systematically – and it doesn't sit easily with evidence that even when funds had advice, they often choose to follow their own information instead.

This section considers an alternative explanation that we call the “SRI pressure hypothesis”: *Proxy advice is deliberately slanted in response to pressure from a subset of customers (SRI funds)*. The explanation goes along these lines: It starts with the observation that funds have different goals – some care only about financial returns while other care about advancing social goals as well. Because their preferences differ, they seek different advice. However, proxy advice is not extensively customized – every fund gets essentially the same recommendations from a given advisor.¹⁰ Because of standardization, a proxy advisor's recommendations influence its entire customer base, and can swing elections if its customers hold enough shares. Investors thus may care about a proxy advisor's recommendations not so much to guide their own voting, but because of how the recommendations influence the votes of the other customers. SRI funds, for example, would like proxy advisors to recommend in favor of SRI proposals. But why would a proxy advisor cater to SRI funds, which comprise only a small segment of its customer base? We conjecture a proxy advisor is willing to slant its advice in favor of SRI proposals because SRI funds care more about proxy advisor recommendations than non-SRI funds: intuitively, non-SRI funds place less value on voting “correctly” (think of an index fund) than SRI funds, and thus are willing

¹⁰ Proxy advisors do offer some customized options; the important point is that they are limited, as would be expected when issuing tens of thousands of recommendations each year. See McCahery et al. (2016) for investor concerns about standardization of advice and Matsusaka and Shu (2021) for an analysis.

to go along with distorted advice in order to take advantage of the low-cost vote execution services provided by the advisors.¹¹

We do not formally test the pressure hypothesis, but would like to suggest it is worth consideration by offering several pieces of evidence consistent with it. We begin by establishing that SRI funds have different preferences over voting outcomes than non-SRI funds. To show the general patterns, we combine all 10 common issues into a regression and allow votes to depend on whether a fund was informed or uninformed, and whether it was an SRI or non-SRI fund:

$$(3) \quad \text{VoteYes}_{fpt} = \beta_1 \cdot (\text{INF} = 1) \cdot (\text{SRI} = 0)_{fpt} + \beta_2 \cdot (\text{INF} = 0) \cdot (\text{SRI} = 1)_{fpt} + \beta_3 \cdot (\text{INF} = 1) \cdot (\text{SRI} = 1)_{fpt} + e_{fpt}.$$

We also include fixed effects for the meeting year and issue type. The omitted category is an uninformed non-SRI fund. To produce an estimate of preferences independent of proxy advice, we exclude observations in which funds were advised by ISS or Glass Lewis.

Table 8 reports the regressions, using different definitions of an SRI fund. In column (1), a fund family is classified as SRI if its first-dimension ideology score from Bolton et al. (2020) is greater than 0.35 (the scores range from roughly -1 to 1); SRI funds cast about 5 percent of fund-votes according to this definition. In (2), a fund family is classified as SRI if at least 1 percent of its assets were in funds with SRI names, as discussed in the data section. About 5 percent of fund-votes were SRI by this definition as well.

The findings are similar for both definitions. Information reduced support on average by 21 percent for non-SRI funds (β_1) and by 7 to 8 percent for SRI funds ($\beta_3 - \beta_2$), both statistically significant. Information pushed both types of funds in the same direction. The more important finding for our purposes is that SRI funds had a higher intrinsic level of support for these proposals than non-SRI funds. When uninformed, SRI funds were 5 to 8 percent (β_2) more likely than non-SRI funds to vote in favor; and when informed SRI funds were 18 to 22 percent ($\beta_3 - \beta_1$) more likely than non-SRI funds to vote in favor; both differences statistically different from zero in both regressions. The finding that SRI funds favored these issues more than non-SRI funds,

¹¹ The steps in this argument, and their empirical and theoretical plausibility, are spelled out in Matsusaka and Shu (2021).

together with earlier evidence that advice moved voting in support, shows that proxy advice tended to shift voting in a direction preferred by SRI funds.

Figure 5 makes this point more explicitly. For this picture, analogously to Figure 4, we estimate equation (1) proposal-by-proposal after introducing a dummy for SRI funds (using the second definition).¹² Then we compare the sign of the estimated coefficient on the advice dummy with the sign on the SRI fund dummy. If the coefficients have the same sign, we can say that proxy advice moved voting in the same direction as the “bias” in SRI fund voting. We report the percent of coefficients with the same sign for the 10 common issues as well as compensation, other proposals, and director elections.

Two patterns stand out. First, ISS advice usually moved votes in the SRI direction; Glass Lewis advice usually moved votes in the opposite direction. Taking into account that ISS had about twice as many customers as Glass Lewis during our study period (Shu, 2021), the net effect of distorting advice was to make election outcomes favored by SRI funds more likely.

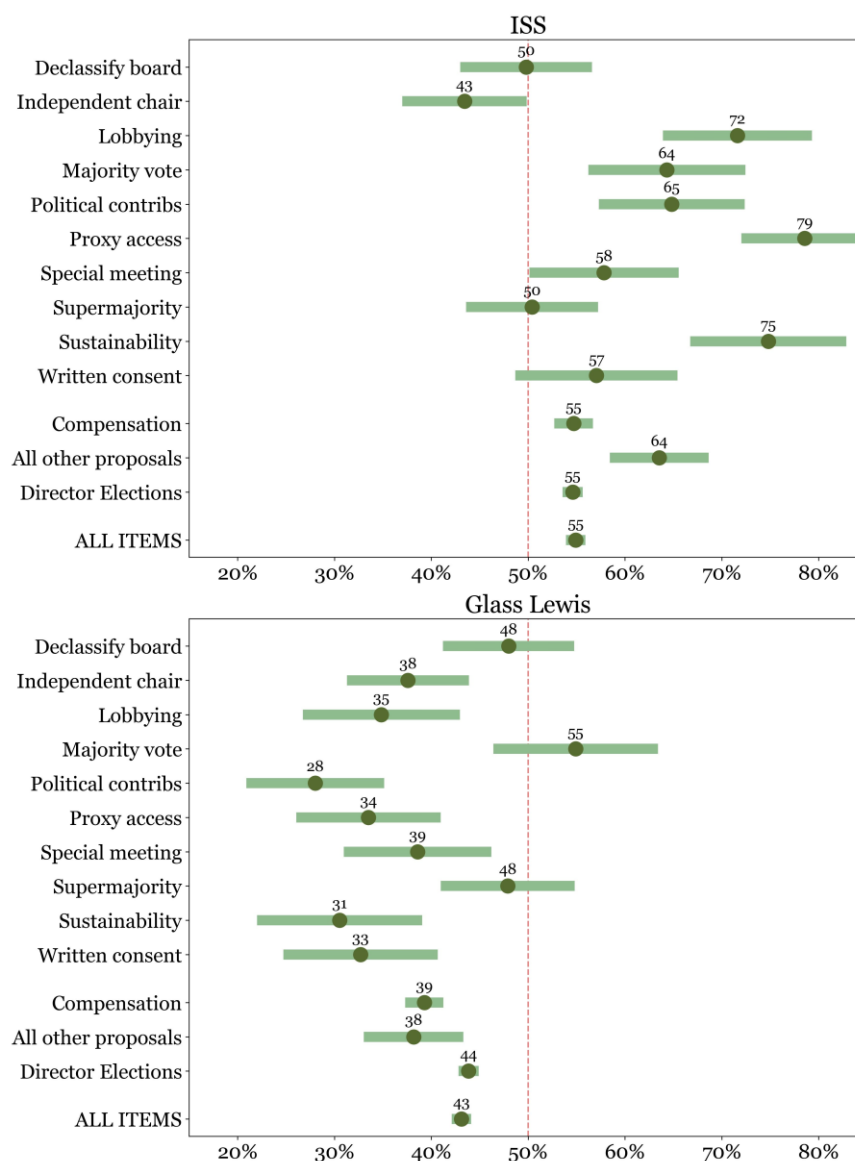
The premise of the pressure hypothesis is that SRI funds want slanted advice not only to please their own investors, but also to influence the voting of non-SRI funds. This interpretation is supported by ample anecdotal evidence of SRI funds pressuring proxy advisors to adjust their voting recommendations on specific issues.¹³ On the face of it, this might seem puzzling – if an SRI fund already knows that it wants (say) a company to adopt a green policy, why does it need ISS or Glass Lewis to issue a recommendation to that effect? The answer is: to influence the voting behavior of *other* funds.

But this raises another question: If the goal is to influence the votes of other funds, why do we see distortion primarily for ISS and not so much for Glass Lewis? Our conjecture is that ISS offers a higher return to pressure. For one thing, its larger market share spreads the potential impact of its recommendations over more customers. Just as important, ISS customers are more likely to follow its advice than Glass Lewis customers. We saw some evidence for this in Table 5,

¹² As before, we exclude proposals in which there were fewer than three votes from ISS customers, Glass Lewis customers, or informed investors, because their β coefficients are likely to be noisy. The patterns are similar using the other definition of SRI.

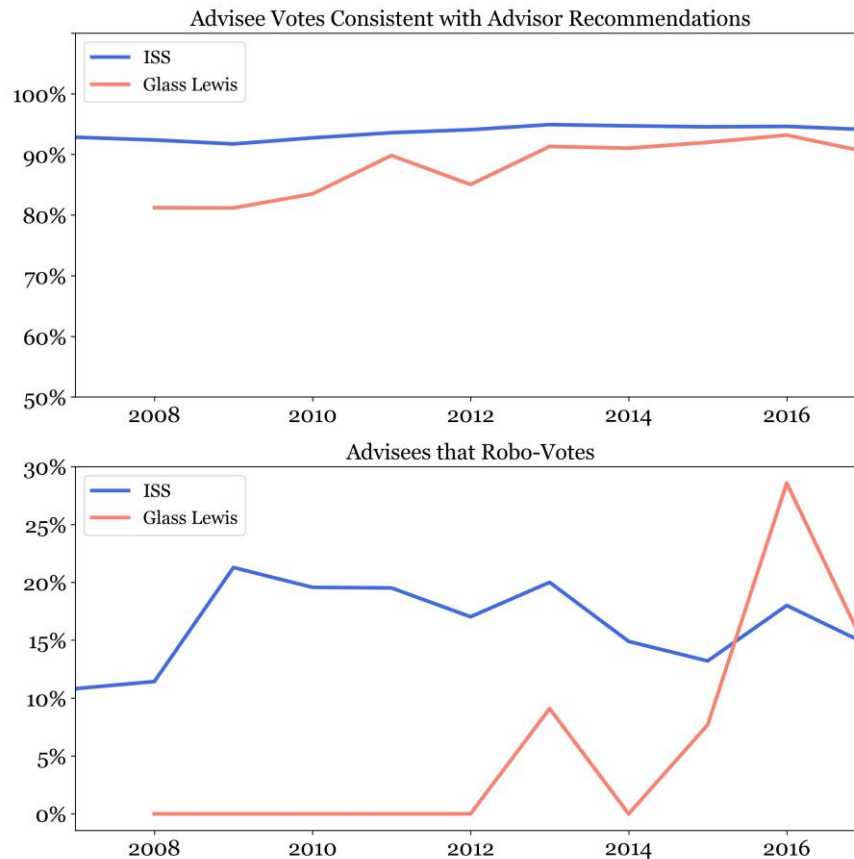
¹³ For example, an initiative on impact investing cosponsored by leading SRI funds such as Calvert, Trillium, Boston Common, and Northstar (Croatan Institute, 2014) describes one of its activities as “engag[ing] with proxy advisory firms, such as ISS and Glass lewis, regarding upcoming shareholder resolutions in order to encourage their support.”

Figure 5. Percent of Proposals in Which Advice and SRI Dummies Have Same Sign



where ISS recommendations changed votes more than Glass Lewis recommendations. Figure 6 shows additional descriptive information. The top panel shows the fraction of advisee votes that followed ISS and Glass Lewis advice by year. There is a gap of about 1 to 11 percent. The bottom panel shows the fraction of robo-voters among the two advisory firms' customers. We define a robo-voter as a fund that voted in accord with its advisor's recommendations more than 99 percent of the time, as in Iliev and Lowry (2015); robo- voters are often but not always passive investors. The fraction of ISS advisees that robo-voted ranged from 11 to 21 percent throughout the

Figure 6. How Often Funds Follow ISS and Glass Lewis Advice



sample period. Glass Lewis had fewer robo-voters for most of the sample period, except very recently.

To summarize, there is a fair amount of circumstantial evidence in support of the hypothesis that ISS deliberately slanted its advice in a pro-SRI direction. This distorted the votes of many of its customers, which would have voted against SRI-preferred policies if they relied only on their own information. We conjecture that this is not an accident by ISS, but a deliberate strategy in response to pressure from activists, who seek to influence the votes of non-SRI funds, and are aware that ISS customers are more inclined to follow its advice than Glass Lewis customers.

5. Discussion

The purpose of proxy advice is to allow funds to cast their votes as if they were informed, without having to actually become informed. Given the centrality of proxy advice in corporate

elections, it is not an exaggeration to say that the viability of shareholder democracy hinges on the effectiveness of proxy advice. While research on proxy advice is growing quickly, most of it assumes that the purpose of proxy advice is to maximize value, which is not necessarily the goal of proxy advice customers themselves, especially SRI funds. We believe that our study is the first attempt to assess the extent to which proxy advice allows funds to cast votes that advance their self-defined interests, as revealed by the votes they cast when independently informed. Our findings are somewhat discouraging: not only does proxy advice not mimic informed voting, but it often seems to lead funds to vote contrary to their informed interests.

In order to reach this conclusion, we have to overcome several empirical challenges. To measure the preferences of informed funds, we use the voting behavior of funds that downloaded a company's proxy statement before the election meeting, following Iliev et al. (forthcoming). To identify which funds were advised by which proxy advisors, we use the formatting of a fund's N-PX form, following Shu (2021). To identify causal effects, we remove potential endogeneity concerns with fixed effects, and we employ new and old instrumental variables to capture exogenous variation in information on a proposal.

Our findings are surprising to us. While existing research and anecdotal evidence suggests that proxy advice is coarse and sometimes overly standardized, this would lead one to expect that proxy recommendations are essentially noise. Our finding, however, is that advice is sometimes worse than noise – especially for ISS – in that it systematically distorts fund votes away from their informed interests. We offer a conjecture and some evidence for why this might be happening. In a nutshell, a story that fits with available evidence is that proxy advisors (especially ISS) have aligned their recommendations with the preferences of SRI funds, even though most of their customers do not share those preferences. We cannot establish the reasons for this, but note that it is consistent with anecdotal evidence that SRI activists seek to influence proxy advice recommendations in order to swing the votes of non-SRI funds in their favor. Slanting advice toward SRI preferences can be a profit-maximizing strategy for proxy advisory firms if SRI funds place a high value on voting recommendations while non-SRI funds place a low value on voting recommendations and a high value on the vote execution services that come bundled with advice (Matsusaka and Shu, 2021).

The normative implications of this story, if it is correct, are complicated. From a value-maximization perspective, it is not a good thing. But in a world where some investors have social goals, value maximization loses force as a normative criterion. There is no consensus yet among

scholars and practitioners about the appropriate normative criterion when value-maximization is not the only objective. Matsusaka and Shu (2021) argue that procedural characteristics like representation should be part of the discussion – elections that accurately reflect the underlying preferences of the investors have some merit. But this is only one factor that might be considered; critically, it excludes payoffs to stakeholders, and it does not consider potential externalities to corporate actions. For example, if the external benefits of green technology to the general population are large enough, it could be “socially” optimal for a company to adopt the technology even though it hurts the company’s investors and other stakeholders.

This paper is not the place to develop a set of normative principles, but we believe the evidence underscores the need to move beyond value maximization when thinking about the goals of corporations, as suggested by Hart and Zingales (2017). Our evidence suggests that proxy advisors are not focused exclusively on value-maximization – and this squares with their public statements which also do not commit to value maximization – but runs somewhat at odds with contemporary thinking in the law and scholarly literature, which tends to evaluate shareholder democracy and proxy advice through the lens of value maximization.

Our analysis also suggests that proxy advisors might be a vulnerable link in the voting chain. Because a substantial and growing number of passive funds mechanically follow the recommendations of their advisors (robo-voting), activists can swing corporate elections by gaining control of ISS recommendations. From a policy perspective, this calls for continued investigation of the role of passive funds in shareholder democracy, and reinforces questions that have been raised about the wisdom of requiring funds to vote (Lund, 2018; Bebchuk et al., 2017). It also suggests that greater disclosure by proxy advisors about how they come up with their recommendations may be valuable; at present the process is completely opaque to outsiders (Larcker et al., 2013).

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Table 1
Number of Funds Voting by Information and Advice

The table shows the number of fund-votes that were “informed” (the fund downloaded information from the SEC’s Edgar site before the election) and “uninformed,” and the number that received advice from ISS, Glass Lewis, or neither. A fund-vote is the voting decision of a particular fund on a particular proxy item. Data cover 2004-2017.

| | No advice | ISS advice | Glass Lewis advice |
|--|-----------|------------|--------------------|
| A. All Items | | | |
| Uninformed | 1,231,180 | 3,708,798 | 738,951 |
| Informed | 132,200 | 228,603 | 40,768 |
| B. Shareholder and Management Proposals | | | |
| Uninformed | 67,212 | 198,225 | 36,690 |
| Self-informed | 6,518 | 17,695 | 3,546 |
| C. Director Elections | | | |
| Uninformed | 1,066,192 | 3,218,266 | 632,637 |
| Self-informed | 112,650 | 195,853 | 34,287 |
| D. Say-on-Pay | | | |
| Uninformed | 97,980 | 292,307 | 69,624 |
| Self-informed | 13,032 | 15,055 | 2,935 |

Table 2
Common Proposal Topics

An “item” is a proposal to be decided by shareholder vote. A “fund-vote” is the vote choice of a particular fund on a particular item. Proposals were sponsored by management or by shareholders. “% Yes” is the percentage of fund-votes in favor of the proposal.

| | # Items | # Fund-Votes | % Sponsored by Shareholders | % Yes |
|---|---------|--------------|-----------------------------|-------|
| Declassify board: require every director to be elected every year | 1,223 | 30,944 | 37.8 | 97.1 |
| Independent chair: require board chair to be an independent director | 545 | 20,674 | 99.8 | 40.1 |
| Lobbying: disclose company’s political lobbying activities | 242 | 10,897 | 100.0 | 32.4 |
| Majority vote: require directors to receive a majority of votes in uncontested elections in order to be elected | 723 | 19,923 | 63.3 | 87.7 |
| Political contributions: disclose and limit contributions | 433 | 15,605 | 93.7 | 34.2 |
| Proxy access: allow shareholders to nominate candidates for director | 329 | 13,285 | 83.9 | 68.5 |
| Special meeting: allow shareholders to call special meeting | 438 | 16,506 | 63.7 | 76.0 |
| Supermajority: remove supermajority provisions for shareholder actions such as takeovers and bylaw amendments | 636 | 21,263 | 22.3 | 96.8 |
| Sustainability: create and report policies and plans related to climate change, environmental impact, and sustainability | 385 | 13,586 | 100.0 | 31.8 |
| Written consent: allow shareholders to act by written consent in lieu of meeting | 252 | 10,235 | 77.0 | 63.6 |

Table 3
Regressions of Voting on Information and Proxy Advice

Each column of each panel reports estimates from a regression in which the dependent variable is 1 if a fund voted in favor and 0 if it voted against. Informed is a dummy equal to 1 if the fund visited the company's proxy statement on Edgar prior to voting. ISS/Glass Lewis are dummies equal to 1 if the fund was an ISS or Glass Lewis customer, respectively. Standard errors clustered by fund-year are in parentheses. Fixed effects are indicated in the panel heading. Significance levels are indicated: * = 10 percent, ** = 5 percent, *** = 1 percent.

| Panel A: Baseline Estimates with No Fixed Effects | | | | | | | | | | |
|---|---------------------|------------------------|--------------------|--------------------|-----------------------|--------------------|--------------------|--------------------|---------------------|--------------------|
| | Declassify board | Indepen- dent chair | Lobbying | Majority vote | Political contrihs | Proxy access | Special meeting | Super- majority | Sustain- ability | Written consent |
| Informed | 0.01* (0.01) | -0.14*** (0.02) | -0.13*** (0.03) | -0.07*** (0.02) | -0.11*** (0.02) | -0.16*** (0.04) | -0.09*** (0.02) | -0.02** (0.01) | -0.06*** (0.02) | -0.27*** (0.03) |
| ISS | 0.02** (0.01) | -0.07** (0.03) | 0.14*** (0.04) | 0.09*** (0.03) | 0.07** (0.03) | 0.15*** (0.04) | 0.12*** (0.03) | 0.04*** (0.01) | 0.13*** (0.03) | 0.01 (0.04) |
| Glass Lewis | 0.02*** (0.01) | -0.07 (0.06) | -0.04 (0.04) | 0.11*** (0.03) | -0.06 (0.04) | -0.04 (0.07) | -0.08** (0.04) | 0.03*** (0.01) | 0.03 (0.04) | -0.12** (0.06) |
| Constant | 0.95*** (0.01) | 0.47*** (0.03) | 0.26*** (0.03) | 0.81*** (0.03) | 0.31*** (0.02) | 0.61*** (0.04) | 0.70*** (0.03) | 0.94*** (0.01) | 0.24*** (0.02) | 0.67*** (0.03) |
| R^2 | .003 | .012 | .034 | .019 | .015 | .043 | .033 | .009 | .017 | .038 |
| Observations | 30,826 | 20,577 | 10,827 | 19,732 | 15,536 | 13,205 | 16,408 | 21,192 | 13,249 | 10,191 |
| Clusters | 936 | 899 | 699 | 930 | 858 | 521 | 834 | 906 | 848 | 673 |
| Panel B: Proposal Fixed Effects | | | | | | | | | | |
| | Declassify board | Indepen- dent chair | Lobbying | Majority vote | Political contrihs | Proxy access | Special meeting | Super- majority | Sustain- ability | Written consent |
| Informed | 0.01** (0.01) | -0.15*** (0.03) | -0.13*** (0.03) | -0.07*** (0.02) | -0.08*** (0.02) | -0.12*** (0.04) | -0.09*** (0.02) | -0.02* (0.01) | -0.01 (0.02) | -0.25*** (0.04) |
| ISS | 0.02*** (0.01) | -0.06* (0.03) | 0.14*** (0.04) | 0.12*** (0.03) | 0.07** (0.03) | 0.15*** (0.04) | 0.12*** (0.03) | 0.04*** (0.01) | 0.13*** (0.03) | 0.01 (0.04) |

| | | | | | | | | | | |
|-----------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Glass Lewis | 0.02 ^{**} (0.01) | -0.07 (0.06) | -0.04 (0.04) | 0.10 ^{***} (0.03) | -0.07 [*] (0.04) | -0.04 (0.07) | -0.10 ^{***} (0.04) | 0.04 ^{***} (0.01) | -0.01 (0.04) | -0.12 ^{**} (0.06) |
| Constant | 0.95 ^{***} (0.01) | 0.47 ^{***} (0.03) | 0.26 ^{***} (0.03) | 0.80 ^{***} (0.02) | 0.31 ^{***} (0.02) | 0.61 ^{***} (0.04) | 0.70 ^{***} (0.02) | 0.94 ^{***} (0.01) | 0.24 ^{***} (0.02) | 0.67 ^{***} (0.03) |
| <i>R</i> ² | .137 | .187 | .152 | .231 | .230 | .356 | .245 | .296 | .266 | .172 |
| Observations | 30,714 | 20,559 | 10,827 | 19,654 | 15,508 | 13,204 | 16,406 | 21,171 | 13,238 | 10,187 |
| Clusters | 936 | 899 | 699 | 928 | 857 | 521 | 833 | 905 | 845 | 673 |

Panel C: Fund × Year Fixed Effects

| | Declassify board | Indepen- dent chair | Lobbying | Majority vote | Political contrihs | Proxy access | Special meeting | Super- majority | Sustain- ability | Written consent |
|-----------------------|-------------------------------|-------------------------------|--------------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|--------------------------------|--------------------------------|
| Informed | 0.00 (0.00) | -0.02 ^{**} (0.01) | -0.04 ^{***} (0.01) | -0.02 [*] (0.01) | -0.04 ^{***} (0.01) | -0.08 ^{***} (0.01) | -0.04 ^{***} (0.01) | -0.001 (0.01) | -0.07 ^{***} (0.01) | -0.08 ^{***} (0.01) |
| Constant | 0.97 ^{***} (0.00) | 0.40 ^{***} (0.00) | 0.33 ^{***} (0.00) | 0.88 ^{***} (0.00) | 0.35 ^{***} (0.00) | 0.69 ^{***} (0.00) | 0.76 ^{***} (0.00) | 0.97 ^{***} (0.00) | 0.33 ^{***} (0.00) | 0.64 ^{***} (0.00) |
| <i>R</i> ² | .298 | .452 | .587 | .440 | .487 | .384 | .384 | .129 | .422 | .609 |
| Observations | 30,758 | 20,521 | 10,680 | 19,658 | 15,476 | 13,172 | 16,353 | 21,110 | 13,164 | 10,106 |
| Clusters | 868 | 843 | 552 | 856 | 798 | 488 | 779 | 824 | 763 | 588 |

Table 4
Vote Regressions: Instrumental Variable Estimates

Each column reports estimates from a regression that pools fund-votes across all 10 issues. Dependent variables are indicated in the panel headings. Three different instruments are employed, as indicated in the left column. ISS and Glass Lewis are dummies equal to 1 if a fund received advice from ISS or Glass Lewis, respectively. All regressions include issue and year dummies. Standard errors clustered at the fund-year level are in parentheses. Significance levels are indicated: * = 10 percent, ** = 5 percent, *** = 1 percent.

| Panel A: First Stage: Dependent Variable = Dummy if fund visited Edgar | | | |
|--|-------------------------------|--------------------------------|--------------------------------|
| | (1) | (2) | (3) |
| IV1: Contentious proposal on proxy | 0.02 ^{***} (0.00) | | |
| IV2: # items on proxy (log) | | 0.04 ^{***} (0.00) | |
| IV3: Proxy season dummy | | | -0.01 ^{***} (0.00) |
| Constant | 0.05 ^{***} (0.02) | -0.08 ^{***} (0.01) | -0.01 ^{**} (0.00) |
| R ² | 0.013 | 0.015 | 0.012 |
| F-statistic | 12.94 | 12.56 | 13.60 |
| Observations | 45,217 | 171,743 | 171,743 |
| Clusters | 857 | 999 | 999 |

| Panel B: Instrumented Regressions: Dependent Variable = Dummy if fund voted in favor | | | |
|--|--------------------------------|--------------------------------|-------------------------------|
| | (1) | (2) | (3) |
| <i>Informed</i> | -0.88 ^{***} (0.20) | -1.14 ^{***} (0.12) | -1.11 ^{**} (0.45) |
| ISS | 0.01 (0.02) | 0.07 ^{***} (0.02) | 0.07 ^{***} (0.02) |
| Glass Lewis | 0.02 (0.03) | -0.02 (0.03) | -0.02 (0.03) |
| Constant | 1.02 ^{***} (0.03) | 0.91 ^{***} (0.02) | 0.91 ^{***} (0.02) |
| Observations | 45,217 | 171,743 | 171,743 |
| Clusters | 857 | 999 | 999 |

Table 5
Regressions of Voting in Advisor Recommendations with Fund-Year Fixed Effects

Each column of each panel reports estimates from a regression in which the dependent variable is 1 if a fund voted in favor and 0 if it voted against. Informed is a dummy equal to 1 if the fund visited the company's proxy statement on Edgar prior to voting. ISS/Glass Lewis are dummies equal to 1 if the fund was an ISS or Glass Lewis customer, respectively. Each regression includes fund-year fixed effects. Standard errors, in parentheses, are clustered at the fund×year level. Fixed effects are at the fund×year level. Significance levels are indicated: * = 10 percent, ** = 5 percent, *** = 1 percent.

| | Declassify board | Indepen- dent chair | Lobbying | Majority vote | Political contrihs | Proxy access | Special meeting | Super- majority | Sustain- ability | Written consent |
|--------------------------------------|---------------------|------------------------|-------------------|-------------------|-----------------------|-------------------|--------------------|--------------------|---------------------|--------------------|
| Informed | 0.00 (0.00) | -0.03*** (0.01) | -0.02 (0.01) | -0.02** (0.01) | -0.01 (0.01) | -0.02* (0.01) | -0.05*** (0.01) | -0.01 (0.01) | -0.03** (0.01) | -0.04*** (0.01) |
| Proposal supported by ISS | 0.39*** (0.07) | 0.36*** (0.02) | 0.29*** (0.02) | 0.61*** (0.05) | 0.34*** (0.02) | 0.24*** (0.04) | 0.28*** (0.04) | 0.60*** (0.05) | 0.41*** (0.02) | 0.40*** (0.03) |
| Proposal supported by Glass Lewis | 0.29*** (0.06) | 0.11*** (0.01) | 0.13*** (0.02) | 0.15*** (0.05) | 0.15*** (0.01) | 0.43*** (0.03) | 0.24*** (0.02) | 0.27*** (0.03) | 0.14*** (0.02) | 0.19*** (0.03) |
| Constant | 0.30*** (0.06) | 0.08*** (0.02) | 0.04** (0.02) | 0.12*** (0.05) | 0.03** (0.01) | 0.15*** (0.03) | 0.29*** (0.04) | 0.12** (0.05) | 0.02* (0.01) | 0.08** (0.04) |
| R ² | .351 | .599 | .676 | .469 | .642 | .602 | .468 | .305 | .605 | .684 |
| Observations | 1,932 | 16,857 | 9,735 | 12,121 | 12,848 | 11,200 | 13,452 | 15,132 | 10,667 | 9,193 |
| Clusters | 723 | 748 | 504 | 717 | 735 | 471 | 711 | 737 | 691 | 560 |

Table 6
Counterfactual Vote Regressions in Which Advice Customers Mechanically Follow Recommendations

Each column of each panel reports estimates from a regression. The dependent variable is 1 if a fund voted in favor and 0 if it voted against. Funds that were customers of ISS and Glass Lewis are assumed to have voted according to their advisor recommendations. Each observation is a fund vote. Standard errors clustered at the fund-year level are in parentheses. Significance levels are indicated: * = 10 percent, ** = 5 percent, *** = 1 percent.

| | Declassify board | Indepen- dent chair | Lobbying | Majority vote | Political contribs | Proxy access | Special meeting | Super- majority | Sustain- ability | Written consent |
|----------------------|---------------------|------------------------|--------------------|--------------------|-----------------------|--------------------|--------------------|--------------------|---------------------|--------------------|
| Informed | 0.00 (0.00) | -0.07*** (0.02) | -0.07*** (0.02) | -0.05*** (0.02) | -0.08*** (0.02) | -0.13*** (0.03) | -0.02 (0.01) | -0.02** (0.01) | -0.10*** (0.02) | -0.14*** (0.03) |
| ISS customer | 0.04*** (0.01) | 0.15*** (0.03) | 0.56*** (0.03) | 0.19*** (0.03) | 0.41*** (0.03) | 0.31*** (0.04) | 0.28*** (0.03) | 0.05*** (0.01) | 0.42*** (0.02) | 0.29*** (0.03) |
| Glass Lewis customer | 0.04*** (0.01) | 0.47*** (0.03) | 0.15*** (0.03) | 0.19*** (0.03) | 0.18*** (0.03) | 0.15*** (0.05) | 0.12*** (0.03) | 0.03*** (0.01) | 0.02 (0.03) | 0.33*** (0.04) |
| Constant | 0.95*** (0.01) | 0.46*** (0.03) | 0.25*** (0.03) | 0.80*** (0.03) | 0.31*** (0.02) | 0.61*** (0.04) | 0.69*** (0.03) | 0.94*** (0.01) | 0.24*** (0.02) | 0.66*** (0.03) |
| R ² | .024 | .069 | .265 | .123 | .126 | .126 | .138 | .016 | .160 | .160 |
| Observations | 29,681 | 20,251 | 10,708 | 18,914 | 15,283 | 12,920 | 16,107 | 20,549 | 12,942 | 10,068 |
| Clusters | 931 | 895 | 697 | 921 | 855 | 520 | 831 | 900 | 842 | 672 |

Table 7
Vote Regressions with Information and Advice

Each column of each panel reports estimates from a regression. The dependent variable is 1 if a fund voted in favor and 0 if it voted against. The explanatory variables are dummies indicating whether a fund was informed or not, and advised or not. Standard errors clustered at the fund-year level are in parentheses. Significance levels are indicated: * = 10 percent, ** = 5 percent, *** = 1 percent.

| | Declassify board | Indepen- dent chair | Lobbying | Majority vote | Political contribs | Proxy access | Special meeting | Super- majority | Sustain- ability | Written consent |
|------------------------|---------------------|------------------------|--------------------|--------------------|-----------------------|--------------------|--------------------|--------------------|---------------------|--------------------|
| Informed & unadvised | 0.02 (0.01) | -0.33*** (0.04) | -0.23*** (0.03) | -0.20*** (0.04) | -0.24*** (0.03) | -0.35*** (0.08) | -0.13*** (0.04) | -0.09*** (0.03) | -0.15*** (0.03) | -0.49*** (0.04) |
| ISS customer | 0.02** (0.01) | -0.10*** (0.04) | 0.13*** (0.04) | 0.08*** (0.03) | 0.06* (0.03) | 0.12*** (0.04) | 0.12*** (0.03) | 0.03*** (0.01) | 0.12*** (0.03) | -0.02 (0.04) |
| Glass Lewis customer | 0.03*** (0.01) | -0.11* (0.06) | -0.05 (0.05) | 0.11*** (0.03) | -0.07* (0.04) | -0.08 (0.07) | -0.10** (0.04) | 0.03*** (0.01) | 0.03 (0.04) | -0.16** (0.06) |
| ISS & informed | 0.01 (0.01) | -0.10*** (0.03) | -0.10** (0.04) | 0.00 (0.02) | -0.07** (0.03) | -0.11*** (0.04) | -0.09*** (0.03) | -0.001 (0.01) | -0.03 (0.03) | -0.21*** (0.05) |
| Glass Lewis & informed | 0.01 (0.01) | 0.01 (0.07) | -0.12*** (0.04) | -0.22*** (0.05) | -0.13*** (0.05) | 0.02 (0.06) | 0.00 (0.05) | -0.002 (0.01) | -0.11** (0.05) | -0.14* (0.07) |
| Constant | 0.95*** (0.01) | 0.49*** (0.03) | 0.26*** (0.03) | 0.82*** (0.03) | 0.32*** (0.03) | 0.64*** (0.04) | 0.70*** (0.03) | 0.95*** (0.01) | 0.24*** (0.02) | 0.70*** (0.03) |
| R ² | .003 | .017 | .036 | .026 | .016 | .050 | .034 | .013 | .019 | .045 |
| Observations | 30,826 | 20,577 | 10,827 | 19,732 | 15,536 | 13,205 | 16,408 | 21,192 | 13,249 | 10,191 |
| Clusters | 936 | 899 | 699 | 930 | 858 | 521 | 834 | 906 | 848 | 673 |

Table 8
Vote Regressions for Unadvised SRI and non-SRI funds

Each column is a regression in which the dependent variable is a dummy equal to one if a fund-vote was cast in favor of a proposal. Each regression pools the 10 common issues and includes issue and year dummy variables. Funds that were advised by ISS or Glass Lewis are excluded. The regressions differ in the definition of an SRI fund: the definitions are (1) Bolton et al. (2020) parameter > .35 and (2) share of fund family assets labeled ESG > 0.01. Standard errors, clustered by fund-year, are in parentheses. Significance levels are indicated: * = 10 percent, ** = 5 percent, **** = 1 percent.

| | SRI: Bolton et al. score > .35 (1) | SRI: assets in SRI funds > 1% (2) |
|--------------------|---------------------------------------|--------------------------------------|
| Informed & Not SRI | -0.21 ^{***} (0.02) | -0.21 ^{***} (0.02) |
| Uninformed & SRI | 0.08 ^{***} (0.03) | 0.05 ^{**} (0.03) |
| Informed & SRI | 0.01 (0.06) | -0.03 (0.04) |
| R ² | .330 | .327 |
| Observations | 327,66 | 38,912 |
| Clusters | 236 | 301 |