Walk the talk: ESG mutual fund voting on shareholder proposals

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Abstract
We document that U.S. mutual funds with investment objectives designated as “Sustainable Investment Overall” by Morningstar (ESG funds) are more likely than other mutual funds to vote in support of environmental and social (ES) shareholder proposals and governance (G) shareholder proposals. We also find that the higher support for ES proposals by ESG funds relative to other funds is more pronounced in index funds than in active funds, consistent with trading constraints influencing voting behavior. While these results provide evidence that ESG funds “walk the talk” with their voting behavior on average, we find that fund families play a significant role in that walk. Additionally, in an analysis of fund families that are signatories of the United Nations Principles for Responsible Investment (PRI), we find that ESG funds of PRI families are significantly more likely to support ES proposals and G proposals than non-ESG funds of PRI families. We determine that this significant difference stems from non-ESG funds of PRI families providing less support than non-ESG funds from non-PRI families. Taken together, these results provide evidence that ESG funds available to U.S. investors provide more support for shareholder proposals aligned with their designated investment objective, but the type and family of the fund influence that support.

Keywords ESG · Mutual funds · Sustainability · Shareholder proposals · Proxy voting

JEL classification G23 · G30 · M14

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1 Introduction

This study investigates the extent to which U.S. mutual funds with stated environmental, social, and governance (ESG) investment objectives vote for shareholder proposals at their portfolio firms. According to Morningstar, in 2020, $51.1 billion flowed into U.S. mutual funds with stated ESG objectives, over a twofold (ninefold) increase from 2019 (2018). And as 2020 drew to a close, Morningstar reported 369 U.S. ESG funds, a 23% increase from 2019 (Hale2021). This growth in capital flows and funds corresponds with investors valuing ESG investment objectives (e.g., Hartzmark and Sussman2019) and with U.S. institutions aligning their investment strategies and engagement with investors’ values. For example, annual letters to CEOs from Larry Fink, CEO of BlackRock, the second-largest U.S. mutual fund manager, have increasingly focused on advocating for ESG issues (Fink 2022).

In response to these market forces, regulators have begun to question whether asset managers live up to their claims of sustainable investing. In 2019, the European Union (EU) passed the Sustainable Finance Disclosure Regulation (SFDR), which, to prevent greenwashing, requires more disclosure and standardized reporting by asset managers on sustainable investment practices as of March 2021 (European Parliament, Council of the European Union 2019, Regulation 2019/2088). In the United States, the Securities and Exchange Commission (SEC) Division of Examinations issued a risk alert on April 9, 2021, to provide “observations of deficiencies and internal control weaknesses from examinations of investment advisers and funds regarding ESG investing” (U.S. Securities and Exchange Commission 2021).

There are several ways to assess whether asset managers fulfill their professed ESG objectives: portfolio selection, direct engagement, and voting on shareholder proposals. The EU and SEC share concerns about voting practices on shareholder proposals. The EU passed the Shareholder Rights Directive II, effective June 9, 2017 (European Parliament, Council of the European Union 2017, Council directive 2017/828), which requires disclosure of engagement policies, including the exercise of voting rights. Among the SEC concerns are “observed inconsistencies between public ESG-related proxy voting claims and internal proxy voting policies and practices” (U.S. Securities and Exchange Commission 2021). Moving forward, the division plans to continue the reviews, which include assessing the consistency of proxy voting decision-making processes with ESG investment objectives. In this study, we examine the alignment of stated ESG investment objectives by U.S. mutual funds and the funds’ voting on shareholder proposals, providing large-sample evidence on this concern.

Shareholder proposals typically address ESG factors. While popular nomenclature usually pools these factors together, it is important to recognize their nuances. “Corporate governance” proposals (G) generally relate to voting rights, compensation structure, and eligibility requirements of the shareholders’ agents—the board and management. “Environmental” and “social” proposals (ES) focus on the firm’s engagement with other stakeholders on issues related to the environment, animals, discrimination, charitable contributions, and human rights. This separation is important.

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1 We define a U.S. mutual fund as an open-end fund or ETF that Morningstar has listed as domiciled in the United States. Throughout the remainder of the paper, we refer to U.S. mutual funds that Morningstar has listed as “Sustainable Investment Overall” as ESG funds. We refer to all other U.S. mutual funds as non-ESG funds.

2 Morningstar Research Services, Morningstar Fund Family 150, published July 1, 2019.
because, in 2017, U.S. investment professionals reported that they had included governance factors in their decisions for years, and 45% believed governance issues affected current share prices. In contrast, only 17% (13%) of the professionals believed environmental (social) issues affected current share prices, and their incorporation of these factors was limited and dependent on the sector (CFA Institute and PRI 2018). Accordingly, we focus on the ESG funds’ advocacy for their stated investment objectives through their voting decisions, in particular on ES shareholder proposals.³

We focus on the voting decisions of individual mutual funds as opposed to fund families, for two reasons. First, recent research (Bolton et al. 2020; Bubb and Catan 2021) suggests that fund families exhibit common voting patterns on proposals, but substantial variation still exists within a fund family on shareholder proposals (unlike on proposals submitted by management) (Morgan et al. 2011). Second, diversity in voting among funds in a family may be more pronounced for our research question because within a fund family, ESG funds may be more likely than non-ESG funds to vote differently on ESG issues. By combining mutual funds’ characteristics from Morningstar with their voting data from Institutional Shareholder Services (ISS) Voting Analytics, we examine ESG funds’ voting decisions on ES shareholder proposals and G shareholder proposals from 2012 to 2018.

We find that ESG funds are 11.2% more likely than non-ESG funds to vote in favor of ES proposals and 6.9% more likely to vote for G proposals. While ESG funds show greater support for ES proposals and G proposals, the difference in that support is significantly higher for ES proposals. Within a fund family, ESG funds are still 6.1% more likely than non-ESG funds to vote for ES proposals. That greater support for ES proposals remains significantly larger than for G proposals. For the G proposals, support from ESG funds and support from non-ESG funds are no longer different after we control for fund family. Thus, our evidence suggests that ESG funds “walk the talk” (i.e., back up their words with actions) in their support for ES proposals relative to non-ESG funds, and fund families play a significant role in the differential voting behavior of the funds, consistent with studies that establish fund family ideologies (Bolton et al. 2020; Bubb and Catan 2021).

We also conduct a cross-sectional test to examine whether ESG funds provide more support than non-ESG funds for proposals in settings where mutual funds are constrained in their investment choices. Index funds seek to match the returns of a published index, so they have limited investment trading choices, potentially making engagement through avenues like voting a more meaningful way to influence a portfolio firm. Prior research provides mixed evidence on whether index funds act as monitors on governance issues (e.g., Appel et al. 2016; Heath et al. 2022). However, index ESG funds may be more likely to monitor firms on ES issues because they have publicly acknowledged their commitment to these issues through their investment criteria in the prospectus filed with the SEC. Thus, we predict and find that the higher support for ES proposals by ESG funds relative to non-ESG funds is more pronounced in index funds than active funds.

While our prior analyses examine effects across and within fund families, they do not examine cross-sectional variation in fund families’ advocacy for ESG investing (Bolton et al. 2020). Therefore, we also explore the effect of fund families’

³ We build on Morgan et al. (2011), who found that from 2003 to 2005, U.S. mutual funds that they labeled “social” (not necessarily ESG funds) were less likely than other shareholders to vote for proposals on environmental and social issues but more likely to vote on key governance issues. Much has changed since that time. Morningstar reports 240 launches of U.S. ESG funds between 2006 and 2019, of which 68% launched as recently as 2015, compared to 49 launches from 1971 to 2005 (Hale 2020).
endorsement of the United Nations Principles of Responsible Investment (PRI) on their funds’ voting behavior. To the extent that PRI signatories walk the talk of responsible investing across all their funds, we might expect to see no difference in voting behavior between their ESG funds and non-ESG funds. Instead, we find that the ESG funds of PRI signatories are more likely to support both ES proposals and G proposals than are the non-ESG funds of PRI signatories.

This result may suggest PRI signatories walk the talk through the voting of their ESG funds. However, examining the voting behavior of non-PRI fund families tells a different story. We find no difference in the voting behavior of ESG funds and non-ESG funds from families that did not endorse the PRI and no difference in the voting behavior of ESG funds from PRI signatories and other fund families. The observed difference in voting behavior among funds of PRI signatories actually arises because the non-ESG funds of PRI signatories are less likely to support proposals than the non-ESG funds of other fund families. Taken together, the results of the PRI analysis call into question the consistency between public claims and voting behavior along this characteristic of fund families, consistent with evidence on portfolio firms held by U.S. PRI signatories (Kim and Yoon 2021; Gibson et al. 2021).

Finally, for robustness, we report further tests. First, we include a control for the ESG performance of the fund’s portfolio in two separate ways using data provided by Morningstar: sustainability rating and ESG score. If the portfolio selection, rather than the stated investment objectives of the ESG fund, influences voting behavior, then this alternative factor would explain our results. However, our findings remain unchanged after including Morningstar’s portfolio sustainability rating or ESG score in our main tests. Second, we redefine our measure of ESG fund to include only ESG funds that contain at least one ESG-related keyword in the fund’s name (He et al. 2021; Michaeley et al. 2021; Raghunandan and Rajgopal 2021). We characterize such ESG funds as “self-designated,” potentially as a marketing effort to attract capital flows. This change reduces our sample of ESG funds from 276 to 71. We find that self-designated ESG funds are significantly more likely to vote in favor of ES proposals and G proposals than non-ESG funds. Moreover, this difference is larger for self-designated ESG funds than for Morningstar-defined ESG funds.

Our study complements concurrent research that examines asset managers’ attempts to fulfill their ESG objectives through portfolio firm selection (Heath et al. 2021) and engagement with portfolio firms (Dimson et al. 2021). In doing so, we contribute in four ways to the literature at the intersection of mutual fund investing, ESG objectives, and shareholder proposals. First, our findings extend related work that examines whether U.S. mutual funds that claim to be ESG-oriented invest in portfolio firms with better E and S practices (Kim and Yoon 2021; Raghunandan and Rajgopal 2021; Heath et al. 2021) by analyzing a different decision (i.e., voting) made by a different designation of ESG funds (i.e., designated using stated investment objectives).

Second, by examining ESG fund support for ES proposals separately from G proposals, we extend our understanding of voting on G proposals by institutional investors (Gillian and Starks 2000; Ertimur et al. 2010) – mutual funds in particular (Matvos and Ostrovsky 2010; Iliev and Lowry 2015). Relative to contemporaneous research examining the voting behavior of ESG funds on ES proposals (He et al. 2021; Michaeley et al. 2021), we focus on ESG funds’ support across proposal types because they have stated ES and G objectives. Our analysis of ESG and non-ESG funds is in contrast to Kim and Yoon (2021), who examine E, S, and G proposals for mutual funds after the funds’ families become PRI
signatories. Our results imply that ESG funds’ support of shareholder proposals relative to non-ESG funds’ support is stronger for ES than for G proposals. An implication of this is that when investors and regulators evaluate whether ESG funds follow their stated investment objectives when voting on shareholder proposals, they must explicitly consider the ESG factor of interest.

Third, we investigate whether support for ES proposals from ESG funds, relative to non-ESG funds, differs for index funds, to shed light on the role that trading constraints play in engagement through voting behavior. Contemporaneous research documents differences in voting on ES proposals based on the trading behavior of mutual funds. He et al. (2021) find that mutual funds with a long-term horizon, similar to index funds, are more likely to support ES proposals, and their support contains information about future negative outcomes for the firm. Thus, our finding of higher support for ES proposals by ESG index funds suggests their votes could provide important information to capital providers about negative ES events.

Fourth, we present further evidence of voting behavior by funds in relation to their families’ ESG preferences. Our cross-sectional examination based on the PRI status of the family complements contemporaneous research that examines voting on contested ES proposals by ES-named funds managed by fund families with different ES voting ideologies (Michaely et al. 2021). Our examination of PRI signatories is consistent with our focus on the voting behavior of mutual funds walking the talk based on their publicly stated objectives, whether in their fund prospectus or through their fund family’s PRI status. Examining the family’s PRI status builds on Kim and Yoon (2021), who find that mutual funds do not change their voting behavior after their family becomes a PRI signatory. While the prior study examines a fund’s proportion of support for shareholder proposals across time, we examine cross-sectional differences in voting for proposals at the same annual meeting based on claimed ESG objectives of both the fund and family.

We organize this paper as follows. We develop our hypotheses in Section 2. In Section 3, we describe the assembly of our sample, spanning seven years, 2,681 unique mutual funds (including 276 unique funds designated as ESG), 3,758 unique shareholder proposals, and more than 755,000 fund votes. In Section 4, we provide a descriptive analysis of our data, describe an empirical model to test our hypotheses, and report the results of our primary analysis. Section 5 presents supplemental analysis and robustness checks. Section 6 concludes.

2 Hypothesis development

Corporate governance issues typically involve agency conflicts with management, which, if resolved, should be wealth-increasing (e.g., Cuñat et al. 2012; Ertimur et al. 2010). One way to facilitate the mitigation of agency conflicts is through shareholder voting, which is heavily influenced by ISS recommendations (Cotter et al. 2010; Iliev and Lowry 2015). Prior research has established that, in general, voting on shareholder proposals is economically consequential. In particular, mutual funds are less likely than other shareholders to

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4 While existing studies show that, for example, gadfly shareholder proposals likely waste corporate resources (Larcker and Tayan 2016), it is also clear from the earlier studies that shareholder proposals can have positive economic consequences (e.g., Cuñat et al. 2012; Ertimur et al. 2010). Related to environmental objectives, Flammer et al. (2021) find that when a firm’s shareholders submit more E proposals, the firm voluntarily discloses more climate change risk, increasing firm value.
vote for shareholder proposals but are more likely to vote in support of a shareholder proposal if they expect it to be wealth-increasing for the firm (Morgan et al. 2011).

To the extent that voting on shareholder proposals is wealth-increasing, fund managers and investors have aligned incentives across ESG and non-ESG funds, and we would not expect a difference in voting across types of funds. However, assuming ESG funds appeal to investors who prefer that their investments support corporate behavior aligned with ES factors, there are two reasons that voting on ES proposals by ESG funds would be more favorable than voting by non-ESG funds. First, prior research suggests that ES issues are more likely appeal to a subset of mutual fund investors with nonpecuniary preferences (Hartzmark and Sussman 2019). Second, managers of ESG funds have an incremental reason to vote for ES proposals: they have publicly committed to align with investors interested in ES issues through the investment objectives in their prospectus. Failure to do so could result in ESG fund investors shifting their capital elsewhere, decreasing the funds’ assets under management (AUM). Formally, we predict:

Hypothesis 1 (H1): ESG funds are more likely than non-ESG funds to vote in favor of ES proposals at the underlying corporations in which they invest.

Throughout our analyses, we report voting on G proposals by ESG funds relative to non-ESG funds for comparison. To the extent that mutual funds find G proposals economically beneficial (Morgan et al. 2011), we expect ESG and non-ESG funds to have similar voting patterns on G proposals.

A critical distinction between types of mutual funds is that managers of active funds may choose to exit (sell) when they disagree with a portfolio firm’s decision. On the other hand, an index fund’s trading is limited because it must track the return of a specific market index. These trading constraints leave index fund managers with only their voice (vote) (Kapadia 2017). Indeed, prior work has shown that index funds are associated with an increase in support for G proposals (Appel et al. 2016). However, more recent work has also shown that index funds in general monitor less than active funds and, specifically, tend to vote with management, who are extremely unlikely to support any ES shareholder proposal (Heath et al. 2022).

Importantly, the prior literature on index fund monitoring compares all index funds with all active mutual funds. However, not all index funds are the same. To the extent that ESG index funds attract capital based on ES investment objectives, they have incentives to demonstrate, to investors, a commitment to their professed objectives, especially given that they cannot demonstrate such a commitment through trading. A failure to demonstrate a commitment to professed ESG objectives would create incentives for the investors of an ESG index fund to shift their capital to alternative investments. Accordingly, we predict:

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5 Hartzmark and Sussman (2019) find that 11 months after Morningstar published ratings of mutual funds based on the ESG scores of their portfolio firms, the funds rated in the top 10% attracted between $24 billion and $32 billion of capital inflows, and the funds rated in the bottom 10% experienced outflows of between $12 billion and $15 billion. The study ascribes the findings to nonpecuniary benefits for investors because high-sustainability funds during the period of study perform no better than low-sustainability funds.

6 In our sample, management does not support any ES proposal.
Hypothesis 2 (H2): The higher likelihood of ESG funds voting in favor of ES proposals relative to non-ESG funds will be more pronounced for index funds than for active funds.

Support for H2 might not hold if 1) active ESG funds engage in both portfolio selection and shareholder voting, 2) index ESG funds engage in lobbying around ES issues in ways unrelated to voting on a shareholder proposal, or 3) index funds lack the incentive to monitor portfolio firms because they bear the costs while all shareholders benefit from the increased value of their monitoring (Heath et al., 2022).

3 Sample and data

We obtain data related to shareholder proposals submitted from 2012 to 2018 from ISS Voting Analytics. We summarize, in Table 1 Panel A, the sample selection of shareholder proposals. This number arises from merging three ISS Voting Analytics databases containing information related to shareholder proposals. First, the shareholder proposal database includes all shareholder proposals for U.S. firms in the Russell 3000 and some non-U.S. firms, with information about the proposal topic, the sponsor, and the treatment status (e.g., omitted by the management, withdrawn by the sponsor, nondisclosed in the proxy statements, etc.). It contains data related to 25,197 shareholder proposals, from which we eliminate 2,936 omitted or withdrawn proposals and 3,445 proposals missing voting data to obtain 18,816 shareholder proposals.

Second, the company database includes shareholder proposals and non-routine management proposals for Russell 3000 firms. We start with 6,201 shareholder proposals, from which we eliminate 779 duplicate observations and 1,125 observations missing voting outcome data to obtain 4,297 shareholder proposals. Third, the mutual fund voting database, which comprises details about the proxy voting records of mutual funds filing Form N-PX, contains data for 36,785 shareholder proposals. As described in Appendix A, we merge the 18,816 proposals from the shareholder proposal database with the 4,297 proposals from the company database and the 36,785 proposals from the mutual fund voting database. This merge yields a sample of 3,777 proposals for U.S. listed firms from ISS Voting Analytics.

To obtain information about mutual fund characteristics and investment performance, we use data from Morningstar. Using the ISIN number, we merge the 3,777 shareholder proposals from ISS with the Morningstar data to obtain a final sample of 3,758 proposals.

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7 We begin the sample period in 2012 after the full implementation of the Dodd-Frank Act, which led to widespread reform of corporate governance practices and likely affected the motivation for, and the nature and frequency of, shareholder proposals. The end of our sample is the last corporate meeting date for which we are able to access data: October 20, 2018. Company data ends on January 1, 2019, and proposal data is up to December 29, 2018.

8 The number of observations differs across the three databases because the mutual fund voting database and the shareholder proposal database contain shareholder proposals related to different firms not included in the Russell 3000.

9 ISS Voting Analytics does not provide a variable to merge its fund-level information with other providers, such as Morningstar and CRSP. We thank ISS for providing us with a list of 3,612 fund-specific ISIN numbers that they collected for an internal project, which we use to merge the datasets. When we matched the list of fund-specific ISIN numbers from ISS to Morningstar, we retained 78% of the funds on the list.
Those 3,758 proposals are related to 863 firms, were voted on by 2,681 mutual funds, and account for 755,525 fund votes. We classify each proposal as ES or G, and within ES as Environmental, Social, or Other, as described in Appendix A. Of the 3,758 proposals in the sample, 2,343 (62%) are G proposals, which account for 427,644 (57%) of the fund votes; and 1,415 (38%) are ES proposals, which account for 327,881 (43%) of the fund votes (see Table 1 Panel B).

In addition, we use Morningstar to classify each mutual fund as ESG or non-ESG. We code an ESG fund as equal to 1 if Morningstar classifies the fund as having a sustainable investment objective. Otherwise, we classify the fund as non-

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**Table 1** Sample Characteristics

### Panel A: Initial Sample Selection

#### I: ISS Voting Analytics Shareholder Proposals Database
Number of available shareholder proposals from shareholder proposal database 25,197
Excluding:
- Omitted or withdrawn proposals (2,936)
- Proposals with missing voting data (3,445)
Number of usable shareholder proposals from shareholder proposal database 18,816

#### II: ISS Voting Analytics Company Vote Results Database
Number of available shareholder proposals from company database 6,201
Excluding:
- Duplicate observations (779)
- Proposals with missing voting data (1,125)
Number of usable shareholder proposals from company database 4,297

#### III: ISS Voting Analytics Mutual Fund Vote Records Database
Number of usable shareholder proposals from mutual fund voting database 36,785

#### IV: Morningstar Database
Number of usable shareholder proposals at the intersection of I, II, and III 3,777
Excluding missing proposals in Morningstar Database (19)
Number of shareholder proposals available for use in analyses 3,758

### Panel B: Sample Description of Votes by Type of Proposal and Fund

|                  | G Proposal | ES Proposal |
|------------------|------------|-------------|
| Non-ESG Fund     | Votes: 386,531 | Votes: 295,407 |
|                  | Funds: 2,405 | Votes: 681,938 |
| ESG Fund         | Votes: 41,113  | Votes: 32,474  |
|                  | Funds: 276    | Votes: 73,587  |

Proposals: 2,343
Votes: 427,644

Proposals: 1,415
Votes: 327,881

Proposals: 3,758
Votes: 755,525

Those 3,758 proposals are related to 863 firms, were voted on by 2,681 mutual funds, and account for 755,525 fund votes. We classify each proposal as ES or G, and within ES as Environmental, Social, or Other, as described in Appendix A. Of the 3,758 proposals in the sample, 2,343 (62%) are G proposals, which account for 427,644 (57%) of the fund votes; and 1,415 (38%) are ES proposals, which account for 327,881 (43%) of the fund votes (see Table 1 Panel B).

In addition, we use Morningstar to classify each mutual fund as ESG or non-ESG. We code an ESG fund as equal to 1 if Morningstar classifies the fund as having a sustainable investment objective. Otherwise, we classify the fund as non-
ESG. More specifically, Morningstar states that it defines “Sustainable Investment – Overall” as a fund that “explicitly indicates any kind of sustainability, impact or ESG strategy in their prospectus or offering documents” (Morningstar 2020, 10). Of the 2,681 mutual funds in the sample, 2,405 (90%) are non-ESG and 276 (10%) are ESG.

3.1 Proposal characteristics

Table 2 presents the number of proposals, the proportion with ISS recommendations in favor, and mutual fund and family voting outcomes by type of proposal for the 3,758 proposals in the sample. Of the ES proposals, we classify 24% (334) as environmental, 69% (973) as social, and 8% (108) as “other.” (See Appendix A for detail on our classification of proposals into these subcategories.)

Within the ES proposals, ISS support for environmental, social, and “other” proposals (71%, 65%, and 26%, respectively) is substantially lower than for G proposals (79%, on average). The average proportion of mutual funds voting in favor of the proposals (9% to 46%, depending on proposal type) is substantially below ISS recommendations (26% to 79%, depending on proposal type). And the proportion of mutual funds voting in favor of the environmental, social, and “other” ES proposals (26%, 25%, and 9%, respectively) is substantially lower than the proportion voting in favor of G proposals (46%, on average). The ISS recommendations and mutual fund voting for G proposals look similar to earlier years (2003–2005) reported in Morgan et al. (2011), but they both have dramatically increased for ES proposals.

Forty-eight percent of fund families have funds that consistently vote “all for” (22%) or “all against” (26%) overall proposals. Fifty-one percent of fund families exhibit diversity in voting among their funds. In total, consistency and diversity in voting for G and ES proposals exhibit similar patterns; 47% of fund families exhibit consistency among their funds in voting for both G and ES proposals. However, consistency in voting among funds in the same family leans toward funds voting for G proposals (26% on average) rather than against them (21% on average), but being twice as likely to vote against ES proposals (32% on average) as for them (15% on average).

3.2 Trends across time

3.2.1 Number of ES shareholder proposals and ESG mutual funds

Table 3 Panel A reports the number of shareholder proposals by year. The number of shareholder proposals fluctuates between 500 and 630 but exhibits a notable decline beginning after 2015, driven by a decrease in G proposals. The number of ES proposals increases from 171 in 2012 to 230 in 2017. ES proposals account for 33% of proposals in 2012 but increase to 46% in 2017.

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10 Morningstar only provides this classification beginning for 2018, so the observations from 2012 to 2017 are based on the 2018 classification. We assume that the designation of each fund was stable across our sample period. While we do not expect funds to change their fund objective over our relatively short time period, switching investment objectives would create measurement error to our classification, which should bias against finding differences in the ESG and non-ESG funds’ voting.

11 We omit 2018 from these numbers because we only have a partial year of data for 2018.
| Proposal Description | # Proposals | % Proposal ISS Rec For | % For Fund Votes | # Proposals | % Proposal ISS Rec For | % For Fund Votes | # Families Voted | # Funds Voted | ALL 1,047 | ALL 47% | ALL 26% | ALL 3,758 | ALL 73% | ALL 38% | ALL 51 | 22% | 26% | 2% | 51% |
|----------------------|-------------|------------------------|------------------|-------------|------------------------|------------------|-----------------|---------------|-------------|-----------|---------|-------------|-----------|---------|---------|-----|-----|-----|-----|
| Overall              |            |                        |                  |             |                        |                  |                 |               |             |           |         |             |           |         |         |     |     |     |     |
| G Proposal           | 585        | 75%                    | 49%              | 2,343       | 79%                    | 46%              | 47              | 183           |             |           |         |             |           |         |         | 26% | 21% | 0%  | 52% |
| ES Proposal          |            |                        |                  |             |                        |                  |                 |               |             |           |         |             |           |         |         |     |     |     |     |
| Environmental       | 104        | 11%                    | 6%               | 334         | 71%                    | 26%              | 56              | 211           |             |           |         |             |           |         |         | 16% | 31% | 5%  | 49% |
| Social              | 352        | 11%                    | 5%               | 973         | 65%                    | 25%              | 58              | 232           |             |           |         |             |           |         |         | 15% | 32% | 4%  | 49% |
| Other               | NA         | NA                     | NA               | 108         | 26%                    | 9%               | 69              | 290           |             |           |         |             |           |         |         | 6%  | 44% | 2%  | 48% |
| Total ES            | 456        | 11%                    | 5%               | 1,415       | 64%                    | 24%              | 59              | 232           |             |           |         |             |           |         |         | 15% | 32% | 4%  | 49% |
Table 3 reports the number of non-ESG and ESG funds by year. Funds designated as ESG represent 10.3% of the total mutual funds. The number of non-ESG and ESG funds has more than doubled over our sample period. The rates of growth annually for each type of fund have been remarkably consistent over that time. ESG funds represent between 10% and 11% of the total number of mutual funds in the sample in each year.

3.2.2 ISS recommendations and mutual fund voting

Table 4 Panel A presents trends related to ISS recommendations and mutual fund voting outcomes by year for our sample of proposals. ISS recommendations in favor of ES proposals grow substantially, from 50% in 2012 to 71% in 2018, with most of that growth occurring from 2012 to 2014. However, these percentages are still lower than for G proposals (73% to 83%, depending on the year). Votes by mutual funds in favor of shareholder proposals show trends similar to recommendations by ISS.

Table 4 Panel B presents similar data for ES proposal subcategories. It is difficult to draw conclusions from data related to ES “other” proposals, as the sample is small.
Table 4 Number and Type of Proposals, ISS Recommendations, and Fund Voting Outcomes

| Proposal Description | # Proposals | % Proposal ISS Rec | % For Fund Votes | # Proposals | % Proposal ISS Rec | % For Fund Votes | # Proposals | % Proposal ISS Rec | % For Fund Votes |
|----------------------|-------------|--------------------|------------------|-------------|--------------------|------------------|-------------|--------------------|------------------|
| Overall              | 1,415       | 64%                | 24%              | 334         | 71%                | 26%              | 973         | 65%                | 25%              |
| 2012                 | 171         | 50%                | 18%              | 31          | 52%                | 18%              | 131         | 53%                | 20%              |
| 2013                 | 192         | 60%                | 21%              | 32          | 50%                | 16%              | 147         | 65%                | 23%              |
| 2014                 | 215         | 67%                | 22%              | 58          | 76%                | 20%              | 140         | 70%                | 24%              |
| 2015                 | 231         | 64%                | 24%              | 65          | 71%                | 26%              | 148         | 66%                | 25%              |
| 2016                 | 239         | 63%                | 26%              | 62          | 77%                | 33%              | 150         | 61%                | 26%              |
| 2017                 | 159         | 71%                | 35%              | 36          | 81%                | 41%              | 101         | 75%                | 37%              |
| 2018                 | 147         | 64%                | 24%              | 34          | 70%                | 27%              | 94          | 64%                | 26%              |

Panel B: ES Proposals Only

| Proposal Description | # Proposals | % Proposal ISS Rec | % For Fund Votes | # Proposals | % Proposal ISS Rec | % For Fund Votes | # Proposals | % Proposal ISS Rec | % For Fund Votes |
|----------------------|-------------|--------------------|------------------|-------------|--------------------|------------------|-------------|--------------------|------------------|
| Overall              | 1,415       | 64%                | 24%              | 334         | 71%                | 26%              | 973         | 65%                | 25%              |
| 2012                 | 171         | 50%                | 18%              | 31          | 52%                | 18%              | 131         | 53%                | 20%              |
| 2013                 | 192         | 60%                | 21%              | 32          | 50%                | 16%              | 147         | 65%                | 23%              |
| 2014                 | 215         | 67%                | 22%              | 58          | 76%                | 20%              | 140         | 70%                | 24%              |
| 2015                 | 231         | 64%                | 24%              | 65          | 71%                | 26%              | 148         | 66%                | 25%              |
| 2016                 | 239         | 63%                | 26%              | 62          | 77%                | 33%              | 150         | 61%                | 26%              |
| 2017                 | 159         | 71%                | 35%              | 36          | 81%                | 41%              | 101         | 75%                | 37%              |
| 2018                 | 147         | 64%                | 24%              | 34          | 70%                | 27%              | 94          | 64%                | 26%              |
However, patterns related to environmental and social proposals are more pronounced. Both ISS recommendations and mutual fund voting in favor of ES proposals increase over the sample period.

4 Main results

4.1 Univariate analysis

Table 5 presents our univariate analysis. We observe that ESG funds are more likely than non-ESG funds to vote for ES proposals, consistent with H1. Specifically, 32.03% of votes by ESG funds on ES proposals are in favor of the proposal, compared to only 21.38% for non-ESG funds (the difference is significant at $p < 0.01$). However, ESG funds are also more likely than non-ESG funds to vote for G proposals; 46.56% of ESG funds’ votes on G proposals favor the proposal, compared to only 40.66% for non-ESG funds (the difference is significant at $p < 0.01$). A possible reason for this outcome is that because G proposals are related to corporate governance, the ESG funds, consistent with their ESG mission, vote in favor of corporate governance proposals more than non-ESG funds do. Alternatively, the outcome could suggest a greater tendency, in general, of ESG funds to support proposals by shareholders. To the extent that management does not support such proposals, the finding suggests that ESG funds are more likely than non-ESG funds to vote against management generally.

Even after controlling for the greater tendency of ESG funds to support G proposals, ESG funds are significantly more likely to vote for ES proposals than are non-ESG funds (i.e., the difference between 32.03% and 21.38% is statistically more significant than the difference between 46.56% and 40.66%, $p < 0.01$). We also observe that ESG funds are less likely to vote in favor of ES proposals than G proposals. Specifically, 32.03% of ESG funds’ votes on ES proposals favor the proposals, compared to 46.56% for G proposals. This difference is smaller than that seen in non-ESG funds (21.38% vs. 40.66%), a difference that is significant at $p < 0.01$.

4.2 Multivariate empirical model

For ES and G proposals, we separately estimate the following pooled, cross-sectional regression using a linear probability model.¹²

\[
\text{VoteFor}_{ij} = \alpha_0 + \alpha_1 \text{ESG fund}_i + \alpha_{2-4} \text{control variables}_j + S_j + C_{ij} + \varepsilon_{ij}
\]

Where:

VoteFor - an indicator that equals 1 if fund $i$ votes “For” proposal $j$, and 0 otherwise (such as “Against,” “Abstain,” and “Do not vote”);

¹²The inferences discussed in this section are the same when we use a probit specification. In untabulated analyses, we also estimate the regression by year to allow for the possibility that voting behavior related to shareholder proposals changes over time. Our inferences are qualitatively unchanged.
ESG fund - an indicator that equals 1 if “Sustainable Investment – Overall” from Morningstar for fund i takes on the value of “Yes,” and 0 otherwise;

Control variables:

ISS For - an indicator that equals 1 if the proposal is supported by ISS and 0 otherwise;

lnTurnoverRatio - the natural logarithm of 1 plus the ratio of the value of traded shares each year to the value of the fund’s holdings;

lnFundSize - the natural logarithm of 1 plus a fund’s net assets at the end of the month prior to the meeting.

We include sponsor (S) and firm-year (C) fixed effects in our full model to control for time-invariant differences across sponsor types and meetings. Additionally, we report our results with fund family fixed effects to examine the extent to which fund family policy choices play a role in fund-level voting decisions. We report standard errors clustered at the fund level, consistent with prior research (e.g., Iliev and Lowry 2015). We winsorize all control variables at the 1% level to mitigate the influence of outliers.

Given that the model includes firm-year fixed effects, our additional variables need to control for proposal or fund characteristics that affect voting behavior, and we do so by following a set of controls included in Morgan et al. (2011). First, we control for the higher likelihood that mutual funds will vote favorably for ISS-recommended proposals (ISS For). In terms of fund characteristics, funds with longer investment horizons are more likely to vote for shareholder proposals that are considered to create long-term value (lnTurnoverRatio). We also expect larger funds (lnFundSize) to exert their influence through private channels to get what they want from firms in their portfolios; thus, there is less need to support other shareholders’ proposals.

4.3 Results for ESG fund voting behavior

Table 6 presents descriptive statistics for the variables included in the multivariate regression. Panel A identifies less than 3% sample attrition due to missing control variable data and non-matching identifiers, which yields a final sample of 735,350 fund-vote observations. Of those, 43% are classified as ES proposals, and the remaining 57% are classified as G proposals (untabulated). Table 6 Panel B provides the

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13 Sponsor is an indicator for whether a proposal is sponsored by an SRI fund, public pension fund, union fund, other type of fund, special interest entity, religious organization, company, or other unspecified group as defined by ISS.

14 We follow Heath et al. (2022) in controlling for firm-year fixed effects, which means we are examining voting on shareholder proposals within a firm’s annual meeting and are controlling for portfolio-firm time-varying characteristics such as firm size, complexity, and performance.

15 In untabulated analyses, we also control for management recommendations in favor of shareholder proposals (i.e., mostly governance proposals), because in such circumstances mutual funds are also more likely to vote in favor of the proposal (Morgan et al. 2011). However, in some of our tests that focus on ES proposals only, there is no variation in this control variable. For consistency, we omit this control throughout all our analyses. However, including a control whenever there is variation in management support for shareholder proposals does not change any of our inferences.
descriptive statistics of the final sample. We classify 10% of the observations as ESG funds. ISS recommended voting in favor of proposals for 70% of the observations. On average, a mutual fund in our sample trades approximately 56% of the value of the fund’s shares each year and holds $6.72 billion in net assets.  

Table 7 presents the results from estimating Eq. (1) using a linear probability model. First, Column (1) presents the analysis without fund family fixed effects to test H1 at the fund level. By omitting fund family fixed effects, we are estimating the average effect of ESG funds, assuming that mutual funds within fund families operate independently from any policies or norms established at the fund family level. The results in Column (1) indicate that ESG funds are 11.2% more likely than non-ESG funds to vote in favor of ES proposals (the coefficient on \( ESG_{fund} \) is positive and statistically significant). This result is consistent with the univariate analysis in Table 5, which shows that ESG funds are significantly more likely than non-ESG funds to support ES proposals. Column (2) provides the results for G proposals. We find that ESG funds are also more likely than non-ESG funds (6.9%) to support G proposals; however, the difference in the support between ESG and non-ESG funds is significantly greater for ES proposals. The 0.043 difference between the coefficients on \( ESG_{fund} \) for ES proposals (Column (1)) and G proposals (Column (2)) is statistically significant, \( p < 0.05 \).

In Columns (3) and (4), we control for fund family fixed effects and find that the incremental effect of ESG funds on the voting outcomes of ES and G proposals

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Table 5  Univariate Analysis: Proportion of Votes in Favor of Proposal

| With ISS Recommendations | G Proposals | ES Proposals | Diff. (ES vs. G Proposals) |
|--------------------------|-------------|--------------|---------------------------|
| Non-ESG Funds            | 157,159     | 63,172       | −19.27%***               |
|                          | out of 386,531 | out of 295,407 | (−168.65)               |
|                          | 40.66%      | 21.38%       |                           |
| ESG Funds                | 19,143      | 10,400       | −14.54%***               |
|                          | out of 41,113 | out of 32,474 | (−39.94)                 |
|                          | 46.56%      | 32.03%       |                           |
| Diff. (ESG vs. Non-ESG Funds) | 5.90%*** | 10.64%*** | 4.73%*** |

\( ***p \text{ value < 0.001 level; } z \text{-scores in parentheses; and } t \text{-statistics in square brackets} \)

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\( ^{16} \) Restricting the sample to unique mutual-fund-year observations, the average fund in our sample trades approximately 64% of the value of its shares each year and holds $3.2 billion in net assets.
decreases by approximately half. While ESG funds are still 6.1% more likely than non-ESG funds to vote in favor of ES proposals, the positive coefficient on $ESG_fund$ for G proposals in Column (4) is no longer significant. Including fund family fixed effects captures the voting behaviors of ESG and non-ESG funds within fund families, controlling for any policies or norms established by the fund family. After doing so, we do not find that ESG funds are more likely than non-ESG funds to support G proposals, suggesting that fund family characteristics may provide an alternative explanation for the results in Column (2). When we compare the coefficients on $ESG_fund$ in Columns (3) and (4) after controlling for fund family fixed effects, the 0.038 difference in coefficients is still statistically significant, $p < 0.05$.

One practical implication of our results concerns investors who are constrained to invest within a fund family (e.g., through a 401k retirement plan). If such investors have preferences for ES outcomes, they will benefit from the fund’s voting behavior when they invest in an ESG fund. However, if investors have preferences for G outcomes, they are less likely to see a benefit from an ESG fund’s voting behavior.

A possible interpretation of our empirical results is that they are consistent with the theoretical work of Friedman and Heinle (2021). A key result of their model is that the fraction of investors using an intermediary increases in the alignment between the intermediary’s and the manager’s preferred actions. An implication of this theoretical result is that ESG funds invest in firms with aligned ES-oriented managers. In this case, voting in favor of ES proposals at firms with aligned ES-oriented managers is a low-cost option for ESG funds to demonstrate efforts consistent with their stated investment

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### Table 6 Sample and Data Description for Multivariate Tests

Panel A Sample Selection for the Regression Models

| Proposals with ISS Recommendation | # of Fund-Vote Obs. |
|-----------------------------------|---------------------|
| Not matched with Compustat         | 755,525             |
| Funds with missing fund turnover ratio | 1,822               |
| Funds with missing lagged fund size | 17,161              |
| Sample with Non-Missing Control Variables | 735,350         |

Panel B Descriptive Statistics

| VARIABLES               | N     | Mean  | Median | Std. Dev. | Min  | p1    | p25   | p75   | p99   | max  |
|-------------------------|-------|-------|--------|-----------|-------|-------|-------|-------|-------|------|
| VoteFor                 | 735,350 | 0.33  | 0      | 0.47      | 0     | 0     | 0     | 1     | 1     | 1    |
| ESG_fund                | 735,350 | 0.10  | 0      | 0.30      | 0     | 0     | 0     | 0     | 1     | 1    |
| Index                   | 735,350 | 0.35  | 0.00   | 0.48      | 0.00  | 0.00  | 0.00  | 1.00  | 1.00  | 1.00 |
| PRI                     | 735,350 | 0.53  | 1.00   | 0.50      | 0.00  | 0.00  | 0.00  | 1.00  | 1.00  | 1.00 |
| ISS_For                 | 735,350 | 0.70  | 1      | 0.46      | 0     | 0     | 0     | 1     | 1     | 1    |
| TurnoverRatio           | 735,350 | 56%   | 34%    | 71%       | 2%    | 2%    | 11%   | 71%   | 444%  | 444% |
| lnTurnoverRatio         | 735,350 | 0.38  | 0.29   | 0.34      | 0.02  | 0.02  | 0.11  | 0.54  | 1.69  | 1.69 |
| FundSize ($)            | 735,350 | 6,719 | 841    | 21,515    | 3     | 3     | 182   | 3,274 | 165,461 | 165,461 |
| lnFundSize              | 735,350 | 20.44 | 20.55  | 2.22      | 14.98 | 14.98 | 19.02 | 21.91 | 25.83 | 25.83 |
objectives. Because aligned ES-oriented managers are unlikely to change firms’ ES policies for suboptimal outcomes, a vote in favor of suboptimal ES proposals at these firms will not be implemented, which preserves the ESG fund’s investment returns. Non-ESG funds do not receive the same benefit from voting on ES proposals, which suggests ESG funds are more likely than non-ESG funds to vote in favor of ES proposals, consistent with H1.

Our results also confirm prior research (e.g., Morgan et al. 2011) which finds that ISS recommendations for shareholder proposals are a critical determinant of mutual fund votes. Mutual funds are 26% more likely to vote in favor of ISS-supported ES proposals and 35% more likely to vote in favor of ISS-supported G proposals (the coefficients on ISS_For are positive and significant at p < 0.01). These coefficients are unaffected by fund family fixed effects. One possible explanation for the insignificant coefficient on ESG_fund in Column (4) is that fund family policies require that ESG funds simply follow ISS recommendations for voting behavior on G proposals. However, in unreported tests, even if we exclude the ISS_For variable from the multivariate regression, the coefficient remains statistically insignificant. Consistent with Morgan et al. (2011), we further find that larger funds are less likely to vote in support of shareholder proposals (the coefficient on lnFundSize is negative and statistically significant, p < 0.01, in Columns (1)–(4)).

In summary, the multivariate results in Table 7 indicate that ESG mutual funds are more likely than non-ESG funds to vote in favor of ES proposals on average and within fund families. The support of shareholder proposals by ESG funds relative to non-ESG funds is more than double that for G proposals on average and within fund families.

4.4 Results for index versus active funds

We next report tests of Hypothesis 2 (H2). H2 predicts that voting in favor of ES proposals by ESG funds relative to non-ESG funds will be greater for index funds than active funds. To test H2, we estimate Eq. (1) after including an indicator variable for index funds (i.e., Index, defined below) and an interaction of ESG_fund and Index.

We use Morningstar to identify an indicator variable, Index, for the index funds. Morningstar defines an index fund as one that tracks a particular index and attempts to match returns. We define mutual funds as active if Morningstar does not flag them as index funds. From Table 3 Panel B, we identify 276 ESG funds. For this analysis, we identify 37 of these ESG funds as Morningstar-designated index funds.

We report the results of the estimation in Table 8. We follow the same structure as Table 7, with separate regressions for ES proposals (Columns (1) and (3)) and G proposals (Columns (2) and (4)). Regressions in Columns (3) and (4) add fund family fixed effects. Consistent with the findings for the overall sample (reported

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17 Another possibility is that the clustering of standard errors by fund unnecessarily increases the standard error on the ESG_fund coefficient. In unreported tests where we do not cluster, the coefficient on ESG_fund in Column (4) is positive and statistically significant.
in Table 7), the results for index funds support H1 regardless of whether fund family fixed effects are included (Columns (1) and (3)). For index funds, the sum of the coefficients on ESG_fund and the interaction captures the likelihood of ESG funds voting for shareholder proposals relative to non-ESG funds; each sum in Columns (1) and (3) is positive and significant at least at p < 0.10. In contrast, index ESG funds are more likely to vote for G proposals than non-ESG index funds only without fund family fixed effects (Column (2)). For active funds, ESG funds are more likely to vote in favor of shareholder proposals than non-ESG funds (i.e., the coefficient on ESG_fund is positive and significant) in Columns (1) and (2) only, suggesting that the difference in voting between ESG funds and non-ESG funds for active funds is associated with fund families.

To test H2, we examine whether the support of ES proposals by ESG funds relative to non-ESG funds is greater for index funds than active funds, which the coefficient on the interaction captures. From Table 8 Column (1), we find that the
coefficient on the interaction is positive and significant at \( p < 0.05 \). In Columns (2) to (4), the corresponding coefficients are not statistically significant. We interpret Column (1) as consistent with our prediction in H2. Thus, if we do not control for fund family fixed effects, the higher likelihood of ESG funds to vote in favor of ES proposals relative to non-ESG funds is more pronounced in index funds than active funds. Given that the coefficient on \( \text{Index} \) is insignificant, the positive coefficient on the interaction is driven by the difference in the type of ESG funds and not by non-ESG funds. These findings are consistent with index

Table 8  Voting Behavior of Index and Active ESG Funds on Shareholder Proposals

| VARIABLES                  | (1) ES only | (2) G only | (3) ES only | (4) G only |
|----------------------------|-------------|------------|-------------|------------|
| \( ESG\_fund \)           | 0.081***    | 0.041*     | 0.035       | 0.007      |
| \( \text{Index} \)        | (2.96)      | (1.79)     | (1.34)      | (0.43)     |
| \( ESG\_fund*\text{Index} \) | 0.244***    | 0.144      | 0.110       | 0.074      |
| \( \text{ISS}\_For \)     | 0.264***    | 0.345***   | 0.264***    | 0.345***   |
| \( \text{lnTurnoverRatio} \) | 0.031      | 0.029      | 0.000       | 0.015      |
| \( \text{lnFundSize} \)   | (1.51)      | (1.14)     | (0.02)      | (1.54)     |
| \( \text{ISS}\_For \)     | -0.034***   | -0.039***  | -0.003***   | -0.004***  |
| \( \text{lnFundSize} \)   | (-11.34)    | (-12.38)   | (-2.84)     | (-3.29)    |
| Constant                   | 0.725***    | 0.922***   | 0.113***    | 0.190***   |
| \( \text{Firm-Year FE} \) | YES         | YES        | YES         | YES        |
| \( \text{Sponsor Dummies} \) | YES        | YES        | YES         | YES        |
| \( \text{Fund Family FE} \) | NO          | NO         | YES         | YES        |
| \( \text{Cluster} \)      | Fund        | Fund       | Fund        | Fund       |

This table reports estimates from a linear probability regression of the proportion of votes in favor of a shareholder proposal on the type of mutual fund, whether the fund follows an index rather than actively trades stocks of underlying firms, and the interaction of these two variables. We report separate estimations for ES proposals and G proposals. Index funds refer to mutual funds that track a specific market index and attempt to match returns. Active funds refer to mutual funds that actively trade the stocks of the underlying portfolio firms. \( ESG\_fund \) refers to ESG mutual funds. “ES Only” refers to environmental or pro-social shareholder proposals. “G Only” refers to governance shareholder proposals. We winsorize all control variables at the 1st and 99th percentiles. We cluster standard errors at the fund level and report \( t \)-statistics in parentheses. ***, ***, and * denote statistical significance at the 1\%, 5\%, and 10\% level, respectively.
ESG funds relying more heavily on ES proposals relative to active ESG funds, which have the ability to trade to communicate their preferences for ES initiatives.\(^\text{18}\)

The caveat of excluding fund family fixed effects is important for our interpretation of H2 because only four fund families in our sample contain both index ESG and active ESG funds. Thus, the lack of statistical significance for Columns (3) and (4) in Table 8 could suggest that H2 does not hold, or it could be driven by there being only four fund families that have variation in the type of ESG fund. Thus, including fund family fixed effects to test H2 in our sample may have limited generalizability.

### 4.5 Principles of responsible investment (PRI) signatories

In this subsection, we explore whether ESG funds that are members of fund families that signed the PRI vote differently from ESG funds of other fund families. The PRI is a nonprofit organization, cultivated and supported by the United Nations, that claims to be the world’s leading proponent of responsible investment. At the end of 2021, its signatories included investment managers (3,519), asset owners (668), and service providers (496).\(^\text{19}\) Assets under the management of PRI signatories grew over 150% ($32 to $82 trillion) during our sample period (2012–2018) and totaled $121 trillion by 2021.\(^\text{20}\) The signatories are the investment managers of mutual funds (i.e., fund families such as Vanguard), not the individual funds, and their websites prominently advertise the affiliation (Kim and Yoon 2021). Since the first 17 investment managers signed the PRI in April 2006, the number grew to 1319 by the end of our sample period (October 2018), then to 3,519 by the end of 2021.

The PRI established six principles to guide the inclusion of ESG issues in the investment practices of its signatories. As an example, Principle No. 2 states, “We will be active owners and incorporate ESG issues into our ownership policies and practices.”\(^\text{21}\) Consistent with Hartzmark and Sussman (2019), both Kim and Yoon (2021) and Liang et al. (2021) find that funds experience an increase in capital flows after the fund family becomes a PRI signatory, suggesting that investors value signals of ESG investment objectives. To the extent that PRI signatories align their actions with the preference of these investors and comply with such principles, it is possible that funds of these PRI families will make different investment-related decisions than funds of other families.

Gibson et al. (2021) find that U.S. institutional investors that are PRI signatories, which include investment managers and asset owners (e.g., pensions), do not appear to comply with the principles through their portfolio investments. They demonstrate that the ESG scores of portfolios managed by U.S. PRI institutional investors are not different from those of other U.S. institutional investors.

\(^{18}\) Our findings are also consistent with the supplemental analysis in Michaely et al. (2021), who find that index ESG funds managed by families with conflicting ideologies are more likely than the non-ESG funds of those families to support ES proposals.

\(^{19}\) https://www.unpri.org/pri/about-the-pri (accessed January 22, 2022), comprising signatories up to and including December 31, 2021

\(^{20}\) Signatories pay an annual membership that provides primary funding for the PRI, supplemented by funding from governments, foundations, and other organizations.

\(^{21}\) https://www.unpri.org/pri/what-are-the-principles-for-responsible-investment
Relatedly, Kim and Yoon (2021) examine changes in ESG-oriented investment decisions for only mutual funds of U.S. fund families that become PRI signatories. After a battery of analyses, they find that only “quant” funds have increases in their portfolio ESG scores. They attribute this increase to quant funds buying firms with higher ESG scores after the fund family becomes a PRI signatory. In comparison, Liang et al. (2021) investigate the performance of hedge funds managed by global PRI signatories. They find that hedge funds that are managed by PRI signatories with low ESG scores and weak incentive alignment underperform, consistent with agency costs. 22

Taken together, the nascent evidence on PRI signatories, which aggregates ESG funds and non-ESG funds of a PRI signatory, suggests that greenwashing is a concern. We add to this literature with our examination of voting on ES proposals and G proposals by U.S. ESG mutual funds managed by PRI signatories compared to U.S. ESG mutual funds managed by non-PRI signatories. To examine this question, we estimate a regression of Eq. (1) with two additional variables. First, we include a PRI indicator, PRI, which equals 1 if the fund was in a family that signed the PRI at the time of the shareholder proposal, 0 otherwise. Second, we include an interaction of PRI with ESG_fund. Table 9 reports our results.

To the extent that PRI signatories walk the talk of responsible investing across all their funds, we expect no difference in voting behavior between their ESG funds and non-ESG funds. On the contrary, we find that ESG funds of PRI signatories are more likely to support both ES proposals and G proposals than are non-ESG funds of PRI signatories (the sum of the coefficients on ESG_fund and ESG_fund*PRI captures this difference and is positive and significant at p < 0.01). This result is consistent with PRI signatories walking the talk through the voting of their ESG funds. However, when we compare those results to the voting behavior of non-PRI fund families, our inferences are different. Specifically, we find no difference in the voting behavior of ESG funds and non-ESG funds from families that did not endorse the PRI (the coefficient on ESG_fund is not significant at conventional levels), and no difference in the voting behavior of ESG funds from PRI families and other fund families (the sum of the coefficients on PRI and ESG_fund*PRI, which captures this difference, is not significant). The observed difference in voting behavior among the funds of PRI signatories noted above actually arises because non-ESG funds of PRI signatories are less likely to support proposals than are non-ESG funds of other families (the coefficient on PRI is negative and significant at p < 0.01). 24 Collectively, our results add to the concurrent evidence that calls into question the consistency between the public claims and the voting behavior of PRI signatories.

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22 Quant funds choose securities based on quantitative analysis of data through a computer algorithm.
23 To test the external validity of their main findings for hedge funds, Liang et al. (2021) find that actively managed U.S. equity mutual funds with weak incentive alignment to their PRI signatories underperform relative to funds from non-PRI signatories.
24 Kim and Yoon (2021) examine voting on E, S, and G proposals by funds after the fund family becomes a PRI signatory. They find that mutual funds reduce the proportion of votes in favor of G proposals after the fund family becomes a PRI signatory. Our results suggest that the reduced support for G proposals reported in Kim and Yoon (2021) may be driven by non-ESG funds of PRI fund families.
5 Supplemental analysis

5.1 ESG performance of portfolio

In this subsection, we address concerns that the ESG performance of the firms in the fund’s portfolio – not the fund’s ESG investment objectives – is associated with more favorable shareholder voting outcomes. We begin by including the Morningstar Sustainability Rating, which evaluates the sustainability performance of the firms within a
fund’s portfolio, in Eq. (1). Importantly, high sustainability ratings have been found to positively influence fund flows into U.S. mutual funds (Hartzmark and Sussman 2019). Thus, it is of interest to determine whether our main results hold after controlling for these ratings.

First, we construct a variable, \( ESG\_rating \), which is equal to 5 if the sustainability rating is “high,” 4 if the sustainability rating is “above average,” 3 if the rating is “average,” 2 if the rating is “below average,” and 1 if the rating is “low.” Importantly, we can obtain the Morningstar Sustainability Rating for 2018 only. Therefore, we backfill our observations from earlier years with the 2018 ratings, assuming they remain unchanged throughout our sample period. Of the 247 unique ESG funds in our sample with a Morningstar Sustainability Rating, the average rating is 3.43 (maximum of 5), which compares to 2.89 for unique non-ESG funds. In addition, 50% (27%) of the ESG (non-ESG) funds are rated “above average” or “high,” and the remaining 50% (73%) are rated “low,” “below average,” or “average.” Thus, the Morningstar ESG fund designation overlaps, though not perfectly, the Morningstar Sustainability Rating.

Table 10 Column (1) reports results from estimating Eq. (1) with \( ESG\_rating \) as an additional control. The coefficient on \( ESG\_fund \) remains positive and statistically significant (coefficient = 0.124, \( p < 0.01 \)). The coefficient on \( ESG\_rating \) is positive but not statistically significant (coefficient = 0.011, \( p > 0.10 \)).

Second, because we can obtain the Morningstar Sustainability Rating for 2018 only, we also estimate our regression using 2018 observations only. Table 10 Column (2) reports the results of that estimation. The coefficient on \( ESG\_fund \) remains positive and statistically significant (coefficient = 0.161, \( p < 0.01 \)). The coefficient on \( ESG\_rating \) (coefficient = 0.017) is positive and statistically significant (\( p < 0.10 \)).

Third, we estimate our main regression including the fund’s ESG performance score, on which the Morningstar Sustainability Rating is based, as an additional variable. These scores are an aggregate measure of the ESG performance of the fund’s portfolio firms and are available back to 2015. Therefore, we estimate our regression including this variable using 2015–2018 observations. Table 10 Column (3) reports these results. Again, the coefficient on \( ESG\_fund \) remains positive and statistically significant (coefficient = 0.124, \( p < 0.01 \)). The coefficient on \( Fund\_Portfolio\_ESG\_Score \) is positive and statistically significant (coefficient = 0.009, \( p < 0.01 \)).

Taken together, we interpret these findings as evidence that the effect of the \( ESG\_fund \) designation on voting behavior is not alternatively explained by mutual funds that select firms with better sustainability performance.

5.2 Self-designated ESG funds

The primary analysis in this study relies on a definition of ESG funds based on Morningstar’s classification of a fund as a “Sustainable Investment Overall” because our motivation derives from regulatory concerns about fulfilling ESG investment objectives. To the extent that the narrative stated in a fund’s
investment objectives influences Morningstar’s classification, the ESG funds in our sample can be viewed as somewhat self-designated. The notion of self-designation is important in the context of our question of whether ESG funds walk the talk, because a primary purpose of self-designation may be to attract capital flows that might not be supported by actions that support ESG objectives.

As an alternative way to identify self-designated ESG funds, we independently identify, in our sample, any fund that includes an ESG-related keyword in the name of the fund. We proceed as follows. First, we read through the names of every fund in our sample and identify a list of keywords that at least one coauthor subjectively determined was ESG-related. Second, we search each of the keywords in the set of the fund names in our sample. If the keyword was in the name of a fund but after consideration by two coauthors does not appear to be ESG-related, we either remove the keyword from the list or add an exclusion clause to the keyword. For example, fund names that include “social” are typically ESG-related, but fund names that include “social media” typically are not. As a result, we identify 71 funds in our sample that

| Table 10 Voting Behavior of ESG Mutual Funds on Shareholder Proposals, Controlling for Fund Sustainability Performance |
|--------------------------------------------------|------------------|------------------|
| VARIABLES                                      | (1) ES Only      | (2) ES Only      | (3) ES Only      |
| ESG_fund                                       | 0.124***         | 0.161***         | 0.124***         |
|                                                | (4.02)           | (4.60)           | (3.97)           |
| ESG_rating                                     | 0.011            | 0.017*           |                 |
|                                                | (1.42)           | (1.80)           |                 |
| Fund_Portfolio_ESG_score                       |                  | 0.009***         |                 |
|                                                |                  | (2.66)           |                 |
| ISS_For                                        | 0.238***         | 0.255***         | 0.261***         |
|                                                | (19.04)          | (18.57)          | (20.22)          |
| lnTurnoverRatio                                 | 0.028            | 0.053            | 0.023            |
|                                                | (1.00)           | (1.64)           | (0.83)           |
| lnFundSize                                      | −0.034***        | −0.031***        | −0.035***        |
|                                                | (−10.96)         | (−8.61)          | (−11.52)         |
| Constant                                       | 0.699***         | 0.673***         | 0.340*           |
|                                                | (9.62)           | (7.74)           | (1.96)           |

This table reports estimates from a linear probability regression of the proportion of votes in favor of environmental or pro-social shareholder (ES) proposals on the type of mutual fund and a proxy for a mutual fund’s sustainability performance. ESG_fund refers to ESG mutual funds. ESG_rating refers to Morningstar’s rating of the sustainability performance of the fund for 2018, on a scale of 1 (low) to 5 (high). Fund_Portfolio_ESG_score refers to Morningstar’s rating of each fund’s portfolio firm average sustainability performance for each of the years 2015 to 2018. “G Only” refers to governance shareholder proposals. We winsorize all control variables (except ESG_rating and Fund_Portfolio_ESG_score) at the 1st and 99th percentiles. We cluster standard errors at the fund level and report t-statistics in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.
include an ESG keyword in the name of the fund. We present, in Appendix B, the list of 26 keywords that identify the 71 self-designated ESG funds.

Next, we estimate the regressions from Table 7 after replacing $ESG_{fund}$ with $Has_{ESG}$, which is an indicator variable equal to 1 if at least one of the keywords in Appendix B appears in the name of the fund, 0 otherwise. In Table 11, we report results consistent with Table 7. The coefficient on the variable of interest, $Has_{ESG}$, is positive and statistically significant for both ES ($p < 0.01$) and G ($p < 0.10$) proposals if we do not control for fund family characteristics, and for ES only ($p < 0.01$) after including fund family fixed effects. Also similar to Table 7, the difference between the $Has_{ESG}$ coefficients across ES proposals and G proposals is statistically significant, both with and without fund family fixed effects ($p < 0.01$). Overall, with the alternative, self-designated measure of ESG funds, we infer the same conclusions as we did from Table 7 (i.e., the evidence strongly supports H1).

Notably, the coefficients of 0.260 and 0.138 on the alternative measure of ESG funds (i.e., $Has_{ESG}$) for the ES proposals are significantly higher than the comparable coefficients in Table 7 (i.e., the coefficients of 0.112 and 0.061 on $ESG_{fund}$, $p < 0.05$). Additionally, the differences between the coefficients in the regressions for ES proposals and G proposals are larger for $Has_{ESG}$ than for $ESG_{fund}$, both with and without fund family fixed effects. One interpretation of these differences between Tables 7 and 11 is that the self-designation is a more precise measure of whether a fund truly follows ESG objectives. If so, an implication is that funds that market themselves as ESG to attract capital flows do indeed follow ESG objectives more than non-ESG funds with respect to voting behavior on portfolio-firm shareholder proposals.

5.3 Additional cross-sectional analysis

We conduct additional cross-sectional (untabulated) analysis by partitioning our sample into the following subsamples:

i. ISS Recommends For versus ISS Recommends Against. The coefficient on $ESG_{fund}$ is positive for both “ISS Rec For” proposals (0.124) and “ISS Rec Against” proposals (0.096), and statistically significant ($p < 0.01$).

ii. Environmental (E) versus Social (S) proposals. The coefficient on $ESG_{fund}$ is positive for both E proposals (0.107) and S proposals (0.113), and statistically significant ($p < 0.01$).

\[26\] Our main sample contains 276 ESG funds (i.e., $ESG_{fund} = 1$). Of these 276 funds, 210 do not include an ESG keyword in the name of the fund. Examples include Nationwide Fund, JP Morgan U.S. Equity Fund, The Hartford MidCap Fund, Pax Large Cap Fund, and Pioneer Classic Balanced Fund. We also identify five that were not in the 276 ESG funds in our main analysis (i.e., $ESG_{fund} = 0$) but that include an ESG keyword in the name of the fund. These funds are Azzad Ethical Fund, 1919 Socially Responsive Balanced Fund, 1919 Variable Socially Responsible Balanced Fund, SPDR S&P 500 Fossil Fuel Reserves Free ETF, and Sustainable Equity Portfolio (formerly, Neuberger Berman Socially Responsive Portfolio).

\[27\] The larger coefficient on $Has_{ESG}$ of 0.26 is consistent with concurrent research that provides an analysis of voting by self-designated ESG funds (He et al. 2021, Table 6).
iii. Disclosure versus Action proposals. The coefficient on ESG\_fund is positive for both Disclosure (0.133) and Action proposals (0.096), and statistically significant (p < 0.01).^28^ 

In each analysis, our results are consistent with the main results in Table 7, with no statistically significant differences across subsamples.

6 Conclusion

In a competitive market for mutual fund flows, strong incentives exist for mutual funds to distinguish themselves from the competition through commitments to invest in underlying firms that support sustainability issues. Some investors may view such support unfavorably if the costs of supporting those initiatives exceed the benefits. Other investors may have competing views about the costs versus

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^28^ We identify nine ES proposal topics as related to increased disclosure and the remaining ES proposal topics as related to actions.
benefits of portfolio firms investing in ESG actions; such investors may also value addressing negative externalities when firms underinvest in ESG actions.

We view, as an empirical question, whether mutual funds that target these latter investors with commitments to invest based on ESG objectives actually support shareholder proposals to enhance ESG outcomes: Do they walk the talk? In general, our evidence suggests that ESG funds are more likely than non-ESG funds to vote in favor of ES proposals, so they appear to walk the talk on environmental and social issues. The more favorable voting behavior of ESG funds is also more pronounced for ES proposals than for G proposals. Our study also notably identifies that “walk the talk” effects are more concentrated in index ESG funds. Index funds are constrained in their investment choices and thus rely more heavily on shareholder voting to demonstrate their preference for sustainability-based initiatives in the firms in which they invest.

These findings speak directly to one area of concern for the SEC’s agenda on greenwashing: investment funds that purport to have ESG objectives but are not actually engaging in aligned voting behavior. A continued avenue of future research will be to characterize the factors that determine the contexts in which ESG funds are willing to support ES proposals and G proposals. Understanding such contexts may help identify high-integrity mutual funds that not only advocate for ES and G initiatives but also follow through with actions that support the implementation of relevant shareholder proposals.

Appendix A

Detail about ISS data

1 Merge of datasets in ISS Voting Analytics

We access three Institutional Shareholder Services (ISS) Voting Analytics databases available through Wharton Research Data Services (WRDS), defined as follows:

1. Shareholder Proposal Dataset (“Proposal” data)
2. Company Vote Results Dataset (“Company” data)
3. Mutual Fund Vote Dataset (“Voting” data)

We use the Proposal data to identify details of the type of each shareholder proposal, which enables us to classify the proposal as either environmental or social (ES) or corporate governance (G), as well as into more granular ES and G topics for descriptive purposes (see below). We use the Company data to identify the voting outcome of the shareholder proposal and the ISS recommendation. We use the Voting data to identify how specific mutual funds voted in response to a shareholder proposal, enabling us to determine whether funds voted in support of or against ES and G proposals.
We merge Company and Voting data by the company’s proposal id (itemonagendaid). Unmatched observations can be (1) proposals with no mutual fund voting or (2) companies that are not listed. Unmatched Proposal data include (1) company-years omitted in the other two datasets; and (2) proposals with duplicate resolution names (e.g., “Elect Directors” for multiple directors) that cannot be reliably matched with other datasets, as resolution name is the only common variable for matching.

The results of a merge of the three datasets, yielding our final sample selection, are specified in Table 1.

2 Classification of ES versus G proposals

From the “Proposal” data, we rely on the Resolution and ResolutionType variables to classify all proposals into 34 topic codes, based on topic codes identified in Morgan et al. (2011). We had three coauthors independently sort the 34 topic codes into 18 topics that we classify as ES-related and 16 topics that we classify as G-related. When there were disagreements on the classification, the coauthors resolved the discrepancy through discussion.

Of the 18 topics we identify as ES-related, we group the topics into three broad categories, as follows:

1. Environmental Issues, which includes topics related to genetically engineered products, “sin” activities, greenhouse gas emissions, and other environmental issues.
2. Social Issues, which includes topics related to pay disparity, political activities, corporate conduct, human rights, discrimination, sustainability, safety, diversity, charitable contributions, customer welfare, and other social issues.
3. Other Issues, which includes topics related to ESG-specified issues, corporate social responsibility (CSR)–based compensation, and governance related to ESG issues.

Of the 16 topics we identify as G, we group the topics into four broad categories, as follows:

1. Board Issues, including proposals for changes to the board of directors and related processes.
2. Compensation Issues, including proposals for changes in the structure of executive compensation.
3. Governance Issues, including proposals for changes in the rights of shareholders.
4. Other Issues, including proposals unrelated to ES or to the Board, Compensation, and Governance general categories.

We provide descriptive details of each topic code below.
| G Proposals | | | | ES Proposals | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Proposal Description | Topic Code | # Proposals | Proposal Description | Topic Code | # Proposals |
| Board Issues (G) | | | Environmental Issues (ES) | | |
| Board Topic - Declassify the board of directors | b1 | 134 | Env. Topic - Report on genetically engineered products | e1 | 14 |
| Board Topic - Vote or remove directors | b2 | 215 | Env. Topic - Cigarette/tobacco-, alcohol-, or weapons-related (sin) activities | e2 | 11 |
| Board Topic - Require a majority vote for the election of directors | b3 | 148 | Env. Topic - Report on greenhouse gas emissions | e3 | 173 |
| Board Topic - Provide for cumulative voting or require more director nominations than open seats | b4 | 33 | Env. Topic - Environment-related issues | e4 | 14 |
| Board Topic - Change board requirement (size, qualification, etc.) | b5 | 390 | | | |
| Board Topic - Director compensation | b6 | 2 | Social Topic - Report on pay disparity | s1 | 13 |
| Compensation Issues (G) | | | Social Topic - Report on political contributions/-activities | s2 | 509 |
| Compensation Topic - Submit severance agreement or a retirement plan to a shareholder vote | c1 | 27 | Social Topic - Code of corporate conduct/workplace human rights | s3 | 66 |
| Compensation Topic - Performance-based compensation | c2 | 12 | Social Topic - Animal welfare standards/animal testing policy | s4 | 40 |
| Compensation Topic - Ratify, limit, or change the compensation plan | c3 | 195 | Social Topic - Non-discrimination policy | s5 | 90 |
| Compensation Topic - Other issues | c4 | 39 | Social Topic - Prepare a sustainability report | s6 | 87 |
| Governance Issues (G) | | | Social Topic - Safety | s7 | 35 |
| Gov. Topic - Submit shareholder rights plan to a shareholder vote | g1 | 20 | Social Topic - Diversity | s8 | 34 |
### G Proposals

| Proposal Description                                      | Topic Code | # Proposals |
|-----------------------------------------------------------|------------|-------------|
| Gov. Topic - Increase shareholder power                   | g2         | 371         |
| Gov. Topic - Provide for confidential voting              | g3         | 2           |
| Gov. Topic - Amend articles/bylaws/charter                | g4         | 193         |
| Gov. Topic - Others                                       | g5         | 558         |
| Other Issues (G)                                          | o1         | 4           |

### ES Proposals

| Proposal Description                                      | Topic Code | # Proposals |
|-----------------------------------------------------------|------------|-------------|
| Social Topic - Other social-related issues                | s9         | 72          |
| Social Topic - Charitable contributions (excl. Political contributions) | s10 | 6          |
| Social Topic - Customer welfare                           | s11        | 6           |
| Other Issues (ES)                                         | b7         | 57          |
| Compensation Topic - CSR-based compensation               | c5         | 39          |
| Gov. Topic - ESG issues                                   | g6         | 12          |

**Total** 2,343

### Appendix B

**List of Keywords to Identify Self-Designated ESG Funds**

In this Appendix, we list the keywords related to Environmental, Social, and Governance objectives that are included in the name of a mutual fund in our sample. Seventy-one mutual funds in our sample contain at least one of the keywords below in the name of the mutual fund, and we identify those funds as “self-designated” ESG funds. The total number of occurrences of those keywords is greater than 71 because a single fund can include more than one of the keywords in its name.

| Keywords          | Number of Occurrences |
|-------------------|------------------------|
| alternative energy| 2                      |
| Carbon            | 2                      |
| Catholic          | 4                      |
| Clean             | 3                      |
| Climate           | 1                      |
| Conscious         | 1                      |
| Diversity         | 1                      |
| Eco               | 1                      |
| environment(al)   | 4                      |
| Esg               | 9                      |
| Ethical           | 1                      |
| fossil fuel       | 2                      |
| Keywords                                 | Number of Occurrences |
|-----------------------------------------|-----------------------|
| Gender                                  | 1                     |
| Green                                   | 3                     |
| Impact                                  | 3                     |
| Organics                                | 1                     |
| response (excluding inflation response) | 1                     |
| Responsibility                          | 1                     |
| Responsible                             | 5                     |
| Responsive                              | 4                     |
| social (excluding social media)         | 10                    |
| energy solutions                        | 1                     |
| sustain(ability/able)                  | 13                    |
| Water                                   | 5                     |
| Wind                                    | 1                     |
| Progressive                             | 1                     |
| Total                                   | 81                    |

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**References**

Appel, Ian R., Todd A. Gormley, and Donald B. Keim. (2016). Passive investors, not passive owners. *Journal of Financial Economics* 121 (1): 111–141.

Bolton, Patrick, Tao Li, Enrichetta Ravina, and Howard Rosenthal. (2020). Investor ideology. *Journal of Financial Economics* 137 (2): 320–352.

Bubb, Ryan and Emiliano M. Catan. (2021). The party structure of mutual funds. *The Review of Financial Studies*. [https://doi.org/10.1093/rfs/hhab082](https://doi.org/10.1093/rfs/hhab082).

CFA Institute and PRI. (2018). *ESG integration in the Americas: Markets, practices, and data*. [https://www.cfainstitute.org/en/research/survey-reports/esg-integration-americas-survey-report](https://www.cfainstitute.org/en/research/survey-reports/esg-integration-americas-survey-report). Accessed February 24, 2022.

Cotter, James, Alan Palmeter, and Randall Thomas. (2010). ISS recommendations and mutual fund voting on proxy proposals. *Villanova Law Review* 55 (1): 1–56.

Cuñat, Vicente, Mireia Gine, and Maria Guadalupe. (2012). The vote is cast: The effect of corporate governance on shareholder value. *Journal of Finance* 67 (5): 1943–1977.
Dinson, Elroy, Oğuzhan Karakaş, and Xi Li. (2021). Coordinated engagements. European corporate governance institute – Finance working paper no. 721/2021. https://doi.org/10.2139/ssrn.3209072.

Ertimur, Yonca, Fabrizio Ferri, and Stephen R. Stubben. (2010). Board of directors’ responsiveness to shareholders: Evidence from shareholder proposals. *Journal of Corporate Finance* 16 (1): 53–72.

European Parliament, Council of the European Union. (2017). Council directive (EU) 2017/828 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement. *Official Journal of the European Union* L132/1. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017L0828. Accessed 24 Feb 2022.

European Parliament, Council of the European Union. (2019). Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosure in the financial services sector. *Official Journal of the European Union* L317/1. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019R2088. Accessed 24 Feb 2022.

Fink, Larry. (2022). The power of capitalism. Letter to CEOs. Blackrock. https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter. Accessed 24 Feb 2022.

Flammer, Caroline, Michael W. Toffel, and Kala Viswanathan. (2021). Shareholder activism and firms’ voluntary disclosure of climate change risks. *Strategic Management Journal* 42 (10): 1850–1879.

Friedman, Henry L., and Mirko S. Heinle. (2021). Interested investors and intermediaries: When do ESG concerns lead to ESG performance? *Jacobs Levy Equity Management Center for Quantitative Financial Research Paper*. https://doi.org/10.2139/ssrn.3662699.

Gilb, Stuart L., and Laura T. Starks. (2000). Corporate governance proposals and shareholder activism: The role of institutional investors. *Journal of Financial Economics* 57 (2): 275–305.

Hale, Jon. (2020). ESG funds setting a record pace for launches in 2020. Morningstar. June 24. https://www.morningstar.com/articles/989209/ESG-funds-setting-a-record-pace-for-launches-in-2020. Accessed 24 Feb 2022.

Hale, Jon. (2021). A broken record: Flows for U.S. sustainable funds again reach new heights. Morningstar. January 29. https://www.morningstar.com/articles/1019195/a-broken-record-flows-for-us-sustainable-funds-again-reach-new-heights. Accessed February 24, 2022.

Hartzmark, Samuel M., and Abigail B. Sussman. (2019). Do investors value sustainability? A natural experiment examining ranking and fund flows. *Journal of Finance* 74 (6): 2789–2837.

He, Yazhou, Bige Kahraman, and Michelle Lowry. (2021). ES risks and shareholder voice. European Corporate Governance Institute – Finance Working Paper No. 786/2021. https://doi.org/10.2139/ssrn.3284683

Heath, Davidson, Daniele Macciocchi, Roni Michaely, and Matthew C. Ringgenberg. (2021). Does socially responsible investing change firm behavior? European Corporate Governance Institute – Finance Working Paper No. 762/2021; Proceedings of Paris December 2021 Finance Meeting EUROFIDAI - ESSEC. https://ssrn.com/abstract=3837706

Heath, Davidson, Daniele Macciocchi, Roni Michaely, and Matthew C. Ringgenberg. (2022). Do index funds monitor? *Review of Financial Studies* 35 (1): 91–131.

Iliev, Peter, and Michelle Lowry. (2015). Are mutual funds active voters? *Review of Financial Studies* 28 (2): 446–485.

Kim, Soohun and Aaron Yoon. (2021). Analyzing active managers’ commitment to ESG: Evidence from United Nations principles for responsible investment. *Management Science*, forthcoming. https://ssrn.com/abstract=3555984

Larcker, David F. and Brian Tayan. (2016). Gaddflies at the gate: Why do individual investors sponsor shareholder resolutions? Rock Center for Corporate Governance at Stanford University Closer Look Series: Topics, Issues and Controversies in Corporate Governance No. CGRP-59. https://ssrn.com/abstract=2821755

Liang, Hao, Lin Sun, and Melvyn Teo. (2021). Responsible hedge funds. *Review of Finance*, forthcoming. https://doi.org/10.1093/rof/rfac028.

Matvos, Gregor, and Michael Ostrovsky. (2010). Heterogeneity and peer effects in mutual fund proxy voting. *Journal of Financial Economics* 98 (1): 90–112.
Michaely, Roni, Guillem Ordonez-Calafi, and Silvina Rubio. (2021). Mutual funds’ strategic voting on environmental and social issues. European corporate governance institute – Finance working paper no. 774/2021. https://ssrn.com/abstract=3884917

Morgan, Angela, Annette Poulsen, Jack G. Wolf, and Tina Yang. (2011). Mutual funds as monitors: Evidence from mutual fund voting. Journal of Corporate Finance 17 (4): 914–928.

Morningstar. (2020). Leveraging Morningstar sustainability data. Morningstar Direct Cloud Editions. May. https://advisor.morningstar.com/AWSOE/Training/MRCloud/LeveragingSustainability.pdf. Accessed 24 Feb 2022.

Raghunandan, Aneesh and Shivaram Rajgopal. (2021). Do ESG funds make stakeholder-friendly investments? Review of Accounting Studies forthcoming, this issue. https://doi.org/10.1007/s11142-022-09693-1

U.S. Securities and Exchange Commission. (2021). Risk alert division of examinations. The Division of Examinations’ Review of ESG Investing. Washington DC, April 9. https://www.sec.gov/files/esg-risk-alert.pdf. Accessed 24 February 2022.

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