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What Drives Sustainable Institutional Engagement and Voting Behavior?

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ABSTRACT

We examine what drives institutional engagement and voting on environmental, social, and governance (ESG)-related shareholder proposals, using data from Principles for Responsible Investment (PRI) and Morningstar. We find that personal engagement often substitutes for voting, especially among large fund families and those using meetings or site visits. Funds that vote more often or disclose less are less supportive of ESG proposals, while those filing proposals or outsourcing votes show more support. Collaborative engagement and longer PRI membership correlate with stronger ESG voting. Though engagement-active funds don't show major ESG performance gains, they increasingly support firms' ESG improvements, highlighting the role of active ownership in promoting sustainability.

JEL Classification: G10, G23, M14, Q54

1 | Introduction

The increasing impacts of climate change have been felt worldwide in recent years, with heat waves, droughts, floods, wildfires, and tropical cyclones occurring more frequently. The COVID-19 pandemic showed how vulnerable and susceptible the world is to global threats (WEF 2025). In addition, the pandemic threatened progress towards the Sustainable Development Goals (SDGs). These urgent challenges require an accelerated transition to a more resilient and sustainable economy.

The world aims to move towards greater sustainability, and financial markets have a central role to play in this process. As a result, many investors consider environmental, social, and governance (ESG) factors in their investments and active ownership decisions (Atta-Darkua et al. 2020; Chambers et al. 2020; Gibson et al. 2022). This is reflected in the growing commitment of investors towards sustainable investing and active ownership. By 2024, more than 3048 investors from 88 countries, with assets under management exceeding $89 trillion, had signed the Principles for Responsible Investment (PRI), making it the largest investor initiative in the world (PRI 2025). In their latest report, however, Morningstar reports that global sustainable funds saw record outflows of $8.6 billion in Q1 2025, marking a sharp reversal from the $18.1 billion in inflows recorded the previous quarter, as geopolitical tensions and growing ESG backlash weighed on investor sentiment (Morningstar 2025).

Voting on shareholder proposals at shareholder meetings has become the most prominent and popular tool for investors to encourage more sustainable business practices (Flammer et al. 2021). Many institutional investors use voting as an engagement

tool because of its cost-effectiveness (ShareAction 2020, 2022). About 30% of institutional investors consider voting against the management to encourage increased efforts on climate-related issues (Krueger et al. 2020). More than half of institutional investors use voting as an interaction channel (McCahery et al. 2016) because voting is particularly conducive to corporate governance as it is the most accessible form, has low costs, and is very easy when following the recommendation of a proxy advisor (Duan and Jiao 2016).

Nonetheless, even though the SEC decided in its 2003[1] regulation that investment advisers must act in the best interest of the fund and its shareholders, there remains considerable diversity in interpretation. This diversity arises because the regulation does not define what constitutes the "best interests" of shareholders, leaving funds room to justify opposing certain proposals—for example, by citing short-term financial concerns, compliance costs, or governance conflicts. Some funds interpret the best-interest obligation narrowly, prioritizing immediate shareholder value over long-term sustainability. For instance, BlackRock has noted in its stewardship reports that it votes against certain climate-related proposals when it considers them too prescriptive, emphasizing direct engagement with firms as a more effective tool (BlackRock 2025)[2].

Promoting changes in ESG practices through voting has gained tremendous momentum. In 2021, for example, a small activist hedge fund won two seats on ExxonMobil's board, intending to push the company away from fossil fuels (WSJ 2021). A vote at Coterra Energy seeking greater methane emissions disclosures gained 74% support (PRI 2023), and Chevron's shareholders voted 61% in favor of a proposal to reduce Scope 3 emissions to combat climate change (Reuters 2021). Activist investors succeeded in increasing diversity in the workforce and improving working conditions for women at Asbury Automotive Group (CNBC 2021).

However, little is known about how institutional investors derive their voting decisions. This study focuses on the drivers of "voting" for sustainable shareholder proposals at annual shareholder meetings. In addition, we compare and relate voting to shareholder "engagement", understood here as all engagement activities by investors that are not related to voting, such as meeting the management, writing (public) letters, visiting operations, and participating in roadshows. Due to the nature of such direct activities, shareholder engagement is hardly visible from the outside. However, detailed reports by PRI signatories allow us to gain insights into investors' engagement and voting processes.

In most jurisdictions, voting is unregulated. However, US mutual funds must disclose their voting behavior under federal law (Papadopoulos and Horster 2018). To our best knowledge, this is a unique feature of US capital markets supervision. To take advantage of this reporting requirement, we compile a comprehensive dataset of US-domiciled mutual funds from two data sources to analyze funds' sustainability voting behavior. First, we use Morningstar data in the form of mutual funds' SEC-regulated voting records and aggregated, categorized approval rates for shareholder proposals on various issues, including sustainability. Second, we use detailed answers from the mandatory annual PRI questionnaire to gather information on investors' processes and approaches regarding shareholder engagement and voting.

Using primarily the answers to mandatory questions from the PRI questionnaire, we identify the elements of the engagement and voting processes related to mutual funds' sustainable voting behavior. First, observe a trade-off between shareholder engagement and voting. The more funds[3] engage directly, the less they vote for ESG-related proposals (−1.32 percentage points; −3.1% lower compared to the baseline approval rate of 42.9%). In particular, when investors meet with management to discuss sustainability issues, they support ESG-related proposals less often (12.5% less). Funds using personal engagement methods such as meetings or site visits may build closer relationships with management, which in turn could reduce their willingness to publicly confront firms through voting. In this sense, voting may not be used as an escalation mechanism, but rather reflects the outcome of ongoing cooperative dialogue.

Second, we show that although our engagement measure is unrelated to Morningstar's fund-level Globe Rating, higher-engagement funds are systematically and statistically significantly associated with portfolios exhibiting stronger ESG characteristics—higher Portfolio Sustainability Ratings and ESG Scores, driven chiefly by Environmental and Social dimensions and, more modestly, Governance—consistent with selective reallocation or effective influence and suggesting that engagement can raise the ESG quality of fund holdings even when headline fund ratings adjust slowly.

Third, the larger the investment company is, the less supportive the votes on ESG-related proposals are (a 11.2% relative drop). The six largest fund companies in our sample ("Big Six") support sustainable shareholder proposals five percentage points (pp) significantly less often than funds from smaller companies. Further, we show that voting dispersion is larger across firms than within firms, with the Big Six showing the least dispersion. Consequently, the size of a particular fund shows ambiguous effects on voting, such that we conclude that fund companies direct voting at family funds rather than giving funds discretion in their voting decisions.

Fourth, the more often investors vote at their portfolio firms, the less often they support proposals (12.1% lower relative to the baseline). This is consistent with the view that when investors vote all the time, they are less likely to scrutinize firms' management publicly but follow their recommendations instead. Put differently, funds that vote seldomly seem to do so primarily in cases they are particularly interested in, which explains the negative relationship between voting frequency and support rate. In addition, actively filing one's own shareholder proposals is significantly positively related to voting in favor of ESG-related proposals (31.85 percentage points higher).

Fifth, if investors proactively disclose their own voting records, they tend to be more supportive of ESG-related proposals (2.09 percentage points). This suggests that the investors who vote against ESG-related proposals want to avoid explaining and justifying their voting behavior to clients.

Sixth, we look specifically at the role of service providers in voting and find increasingly supportive voting behavior as the use of service providers intensifies. For instance, investors who completely outsource voting decisions to service providers

support sustainable shareholder proposals 39 percentage points more often than investors who do not use service providers at all (a 42% increase to the baseline).

Seventh, we analyze different forms of collaborative engagement and their association with voting behavior. Our results show that funds engaging collaboratively to understand ESG strategies or to influence corporate practices vote more frequently in favor of ESG-related proposals (with a 15.7% increase to the baseline). In contrast, engagement efforts limited to encouraging disclosure show no significant effect or even a negative association. These findings underline the importance of engagement intent: active, goal-oriented collaboration appears more aligned with supportive ESG voting than passive or purely informational engagement.

Finally, we examine the role of PRI membership as a signal of responsible investment commitment. We find that signatory funds support ESG-related proposals slightly more frequently than non-signatories (1% higher compared to the baseline), and that this effect strengthens with the duration of PRI membership. Longer-standing PRI members support both environmental and social proposals more often, suggesting that long-term engagement in stewardship networks corresponds with deeper integration of ESG preferences in voting.

2 | Literature and Contribution

First, our findings contribute to the nascent literature on mutual fund voting on ESG issues. De Groot et al. (2021) study the voting behavior of institutional investors and find that, especially large and passive asset managers predominantly vote against social and environmental (ES) proposals (see also Morningstar 2020). Funds that self-classify as sustainable are more likely to vote in support of ESG proposals than other funds; however, fund families significantly influence that support (Dikolli et al. 2021). Michaely et al. (2024) analyze the voting behavior of ES funds in non-ES families and find that they are supportive if ES proposals pass or fail by large margins but unsupportive when their votes are likely to be pivotal. Further, fund managers exposed to hot temperatures are more likely to support environmental proposals (Di Giuli et al. 2024). Li et al. (2023) studied whether ESG funds trade off greater short-term financial performance against lower long-term sustainability. This conflict results in ESG funds voting against their stated pro-social mandate, even when supported by proxy advisors. While investors delegate their pro-social preferences to socially responsible funds, financial returns ultimately determine a fund's stance towards such issues.

Duan and Jiao (2016) conclude that voting is particularly conducive to corporate governance through voice because voting against management is the most accessible form, has no costs, and can sometimes be as easy as following a recommendation from a proxy advisor. Bolton et al. (2020) estimate investor preferences from voting records and find that the most significant difference among institutional investors is the degree to which they weigh social responsibility. Agrawal (2012) found that some investors pursue worker interests rather than maximize shareholder value alone by analyzing labor union pension funds. He et al. (2023) find that shareholder proposals are informative about firms' environmental and social risks. Cvijanovic et al. (2016) find that business ties significantly influence pro-management voting. Finally, Calluzzo and Kedia (2019) find that when firm executives and directors serve as fund directors, funds are significantly more likely to vote with management in proposals with negative Institutional Shareholder Services (ISS) recommendations or low shareholder support.

However, none of this paper investigates how the internal processes of investment companies are related to mutual fund voting. Due to our comprehensive PRI dataset, we have access to detailed information on how investors derive their voting decisions. Thus, we shed light on how sustainable mutual fund voting behavior relates to such processes.

Second, our paper contributes to the growing literature on the role of proxy advisory firms in forming voting decisions. Multiple papers find that investors strongly follow ISS recommendations and vote against the management in case of a negative recommendation (Bethel and Gillan 2002; Alexander et al. 2010), often because institutional investors believe that using proxy advisors improves their own voting decisions (McCahery et al. 2016). Consequently, investors vote more often in line with ISS recommendations than management recommendations (Cotter et al. 2010). The sensitivity of shareholder votes to these recommendations varies with the institutional ownership structure and their rationale, suggesting that at least some shareholders do not blindly follow (Ertimur et al. 2013). If large long-term shareholders perform their research and vote based on it, ISS recommendations are uncorrelated to the shareholders' votes (Malenko and Shen 2016). Further, funds with higher benefits and lower costs of researching the items up for vote are less likely to rely on ISS (Iliev and Lowry 2015). Larcker et al. (2015) conclude that outsourcing voting to proxy advisory firms appears to have the unintended economic consequence that boards of directors are induced to make choices that decrease shareholder value. The vital component of proxy advisors' influence stems from their role as an information agent, for example, in aggregating information to their subscribers (Choi et al. 2009).

Although, the large body of literature exits regarding service providers, none of these papers has analyzed the effect of using service providers on voting on environmental and social proposals. Due to our access to the PRI questionnaire data, we know which investors use service providers, and to what extent and for what purpose. We are thus the first to look specifically at service providers' role in supporting ESG-related shareholder votes. Further, we provide first insights into the intensity of service provider use in supporting shareholder voting.

3 | Data Sources and Matching

3.1 | Mutual Fund Voting

The SEC requires investment companies to disclose how they voted on proxy proposals presented at shareholder meetings since 2003. The rule is intended to provide greater transparency for shareholders and encourage voting by mutual funds (Cremers and Romano 2011). Each mutual fund must file its voting activities by August 31 of each year for the 12-month period ending June 30. To the best of our knowledge, the obligation to disclose voting

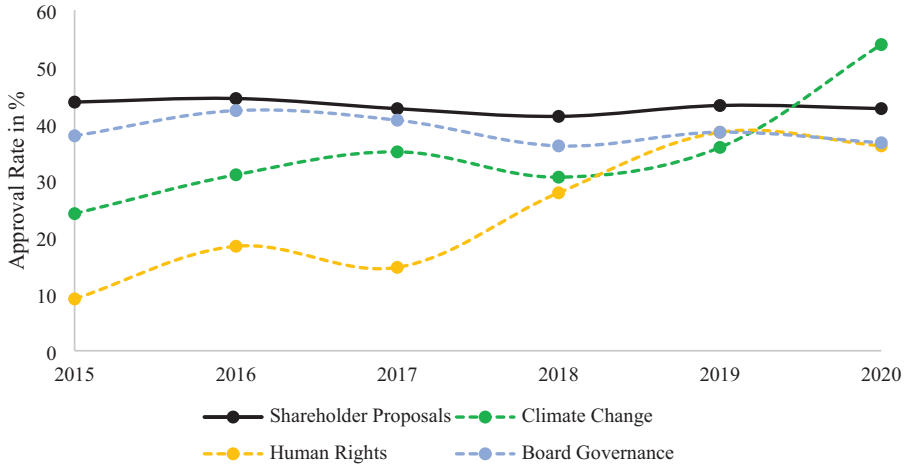

FIGURE 1 | Development of funds' approval rates over time. This figure plots the average funds' approval rate for shareholder proposals and the three proposal categories: climate change, human and worker's rights, and board governance, from 2015 to 2020.

activities is unique to the United States. Combined with comparatively low requirements for filing shareholder proposals, the United States provides an ideal and transparent laboratory to analyze how sustainable institutional investors vote on shareholder proposals and what factors influence voting behavior.

We obtain data on voting for US-domiciled open-end equity active mutual funds from Morningstar Direct (index funds are excluded). Morningstar Direct provides aggregated voting data on shareholder proposals in 16 categories.[4] The proposal categories are based on Morningstar's classification methodology. Morningstar captures the total number of records on which a fund was eligible to vote for each category. Then, Morningstar calculates the fraction of resolutions that were either supported (approval rates), voted against (rejection rates), or abstained from (abstention rate). An approval rate of 10% in the climate change category can be interpreted such that the mutual fund voted in favor of climate change proposals in one out of ten voting opportunities. The fund either voted against the proposal or abstained from the vote the remaining nine times. To ensure that these fractions are representative, we require a minimum of three eligible votes in each category for each fund. Our final dataset covers voting records for 3270 distinct US-domiciled open-end equity mutual funds for the sample period from 2015 to 2020.[5]

In Figure 1, we plot the development of mutual funds' average approval rates for shareholder proposals and for the specific proposal topics climate change (E), human and workers' rights (S), and board governance (G) over time. We focus on these three topics as they together comprise more than half of all shareholder proposals and represent the main core topics of the three ESG pillars. We also conducted our main analyses using the other shareholder proposal categories and found similar results. The figure shows that funds' approval rates for ESG-related shareholder proposals have increased slightly from 2015 to 2020, from 40% to 43%, driven mainly by significant increases of those for climate change (from 22% to 52%) and human and workers' rights (from 10% to 34%).

3.2 | Engagement and Voting Approaches

We obtain detailed information on investors' approach to voting from the U.N. Principles for Responsible Investing (PRI), of which principle 2 requires "Being active owners and incorporating ESG issues into ownership policies and practices". Starting 1 year after signing the PRI, signatories must annually report how they approach and implement responsible investing via a questionnaire (Figure A1). To avoid selection bias, we mainly use mandatory questions to report and disclose; however, in some analyses, we also use voluntary questions. The PRI claims that the data reported by the signatories is credible and of high quality.[6] In addition to the checks made by the PRI, we perform our own checks to test the data for consistency across signatories and over time.

We obtained all our engagement data via the PRI collaboration platform for the accounting years 2015 to 2018 with a unique identifier for each signatory. The number of responding signatories significantly increased from 830 (2015) to 1704 (2018) investors. We have access to detailed responses from 1950 distinct signatories, translating to 6900 annual observations. Signatories report on how they approach engagement and voting in the three modules: "Organizational Overview," "Strategy & Governance," and "Listed Equity Active Ownership". In 2018, 751 signatories responded to the "Listed Equity Active Ownership" module. Because the mutual fund voting data from Morningstar includes a longer period (2015 to 2020) than the PRI data (2015 to 2018), we extrapolate the PRI data by assuming that investors' responses have not materially changed until 2020. Given that we observe that the questionnaire answers are rather consistent over time and that the PRI has significantly changed the structure of their questionnaire after 2018, we believe that extrapolation for two further years is an appropriate and fair approach.[7] As an additional indication of data consistency, Brière et al. (2022) find no significant change in the behavior of large asset management companies in the PRI dataset.

3.3 | Matching of the Datasets

Using a name-matching algorithm, we match the mutual fund dataset from Morningstar to the PRI dataset. Since PRI signatories usually sign at a parent company level, we use the underlying registration companies for the funds for the matching. We start with the 722 registration companies of the 3270 mutual funds from Morningstar and with 486 US-based PRI signatory investment companies. We ensure that each distinct registration company is matched to only one PRI signatory. However, multiple registration companies may be matched to the same PRI signatory since large asset managers run multiple registration companies to operate their mutual funds. To ensure a high-quality match, we manually verify all matching outcomes, that is, double-checking the match proposed by the algorithm and reviewing the non-matched observations.

After matching the dataset and keeping only observations for which we have complete information regarding mutual funds' voting behavior (Morningstar) and their engagement and voting approaches (PRI), our final dataset covers 80 PRI signatories, 332 registration companies, and 1362 funds from 2015 to 2020. Table 1 reports summary statistics of our final dataset. The statistics indicate that our sample is reasonably representative of the mutual fund market (see, e.g., Rohleder et al. 2022, for comparison).

4 | What Drives the Sustainable Voting Behavior of Mutual Funds?

4.1 | Voting and Different Shareholder Engagement Methods

There are two competing expectations that can be formulated and tested: First, investors who engage more also vote more, as it is consistent with their ESG preferences. For instance, if an investor writes public letters to the company's management and demands more sustainable business conduct, we expect this investor to vote for shareholder proposals promoting such changes. Secondly, however, investors who engage more could also vote less as they prefer to engage personally while voting is public, which could jeopardize the investor relationship with the firm. If the personal engagement fails, such investors might use opposing shareholder votes only as an escalation strategy. Thus, arguments exist for both a positive and a negative relation between engagement and voting.

For this analysis, we use a voluntary question from the PRI questionnaire, which asks which and how often engagement actions are carried out. For instance, investors may choose to answer to write letters and e-mails to the management (i) in the minority of cases, (ii) in the majority of cases, or (iii) in all cases. Thus, we have information on which methods investors use for engagement and how frequently these methods are used. PRI signatories can provide details on (i) writing letters and e-mails to the company, (ii) meetings with senior management, (iii) visits to operations, and (iv) participation in roadshows.

To consider both the engagement methods and the frequency of the action, we score each engagement action from zero to three using its frequency and interpret the resulting score as a proxy for the intensity of the engagement action. For instance, a roadshow participation score of three indicates that the PRI signatory participates in roadshows of portfolio companies in all cases, and a score of zero indicates that the investors do not participate in roadshows at all.

Table 2 shows the results of panel regressions of mutual funds' voting approval rates on different methods of engagement. The regressions consider fund style- and year-fixed effects, and standard errors are clustered by the fund. The results for all shareholder proposal approval rates (Column 1) suggest that writing letters and e-mails (4.80) and participating in roadshows (3.67) are related to higher approval rates, whereas visits to operations (−4.43) and meetings with the management (−5.37) seem to be negatively related to voting. Consistent with the second expectation from above, investors who invest considerable time and who have personal contact with the management may vote less against the management in public. Because we observe average effects, there may be cases where investors vote against the management even though they have previously engaged with it. Consistent with the first expectation, engagement with less personal involvement and smaller time investment, like writing letters and e-mails to the company, may indicate a weaker personal relationship with the management.

To analyze the overall effect of engagement activities on voting, we calculate an overall engagement score using the individual engagement activities. Therefore, we use the PRI logic and weigh the engagement activities accordingly. For instance, PRI considers the writing of letters and e-mails as the base case and does not give extra credits for these activities. However, meetings with the board and visits of operations are more advanced engagement activities. The significant negative coefficient of −1.32 (Column 2) documents that engagement activities, in general, are negatively related to voting. In other words, the more intensive engagement is carried out, the less often shareholder proposals are supported by funds.

Finally, we look at the thematic voting approval rates separately for climate change (Column 3), human and workers' rights (Column 4), and board governance (Column 5). The results are mostly similar to those for approval rates in general, with the majority of the coefficient signs being the same. The only exception is that visits of operations are positively but insignificantly related to governance approval rates.[8] To assess whether engagement reflects general support for management, we estimate a model with management proposal approval rates as the dependent variable. The results show that our engagement measure is not significantly associated with higher support for management proposals. Moreover, funds that are more supportive of ESG-related shareholder proposals tend to be less aligned with management. These findings suggest that engagement reflects distinct ESG preferences rather than a general tendency to side with management (see results in Table A2 in the Appendix).

To assess whether high-engagement institutions drive actual improvements in ESG performance of funds or fund holdings, we examine the relationship between our engagement measure and a set of ESG ratings at both the fund and portfolio level (Table 3). Column (1) shows no significant relationship

TABLE 1 | Descriptive statistics over time.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
							Shareholder proposals approval rate			
	# Funds	TNA	TNAC	Turnover ratio	Expense ratio	Management proposals approval rate	General	Climate change	Human and workers' rights	Board governance
2015	634	1.58	36.1	56.60	1.06	93.1%	43.8%	24.1%	9.1%	37.9%
2016	766	2.01	43.9	54.76	1.04	94.7%	44.4%	31.0%	18.4%	42.3%
2017	813	2.14	50.3	51.14	1.03	94.6%	42.6%	35.0%	14.7%	40.6%
2018	1010	2.24	105.0	54.63	0.95	95.0%	41.3%	30.6%	27.8%	36.1%
2019	997	2.32	99.4	51.67	0.94	94.4%	43.2%	35.8%	38.5%	38.5%
2020	949	1.96	103.6	56.77	0.93	94.3%	42.6%	53.9%	36.1%	36.6%
Mean	1362	2.07	77.6	53.36	0.99	94.4%	42.9%	34.1%	26.5%	38.4%
2020–2015		0.38	67.5**	1.05	−0.14**	1.2%**	−1.1%	29.8%**	27.0%**	−1.2%

Notes: This table shows descriptive statistics for all funds within our sample on an annual basis. It shows the average number of mutual funds (*# Funds*) with voting records in Morningstar, the logarithmized total net assets (*TNA*) of the fund, the logarithmized sum of the total net assets of the underlying investment company (*TNAC*), the *turnover ratio*, and the *expense ratio* of the fund. The last five columns report *approval rates* of mutual fund in the respective proposal categories: *management proposals*, *shareholder proposals*, *climate change, human rights*, and *board governance*. All shown data are obtained from Morningstar Direct. ** denotes statistical significance at the 5% level.

TABLE 2 | Engagement methods and mutual fund voting.

Shareholder proposals approval rate	(1) General	(2) General	(3) Climate change	(4) Human and workers' rights	(5) Board governance
Letters and e-mails	4.80***		8.51***	2.19***	3.29***
Roadshow participation	3.67***		9.24***	1.85	4.68***
Visits of operations	−4.43***		−7.74***	−3.50***	0.61
Meetings with management	−5.37***		−9.31***	−8.08***	−9.43***
Overall Engagement Score		−1.32***			
TNAC	−4.24***	−4.69***	−4.49***	−2.58***	−4.25***
TNA	0.14	0.22	−1.01**	−1.25***	1.56***
Turnover	0.01	0.01	0.04**	0.01	0.01
Expense Ratio	4.22***	4.86***	0.73	−2.76	11.05***
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Style fixed effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.236	0.218	0.160	0.105	0.115
N	5169	5169	2501	2824	3276

Notes: This table shows the relationship between engagement (methods) and mutual fund voting during the sample period from 2015 to 2020. Letters and E-mails, Roadshow Participation, Visits of Operation, and Meetings with Management reflect the method of how the engagement actions are carried out in a score from zero to three. Overall Engagement Score reflects the combined engagement methods carried out by the investor. The logarithmized TNAC of the company, the logarithmized TNA of the fund, the turnover ratio, and the expense ratio are used as control variables. Year and fund style fixed effects are included. Standard errors are clustered by funds. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

between engagement and the Morningstar Fund Globe Rating, a fund-level sustainability score. However, Columns (2)–(7) reveal that funds with higher engagement scores are systematically associated with portfolios that have better ESG characteristics. Specifically, higher engagement is linked to significantly higher sustainability performance, as measured by significantly higher Portfolio Sustainability Ratings and ESG Scores.

Decomposing the ESG components further, we find that high engagement correlates positively with Environmental and Social Scores (Columns 5 and 6), and, to a lesser extent, with Governance Scores (Column 7). While the magnitude of some effects is modest, all coefficients are statistically significant at the 1% or 5% level. These results suggest that while fund-level ESG ratings may not shift quickly, high-engagement funds tend to support firms in improving their ESG profiles. This is consistent with either selective reallocation or effective influence through engagement and provides preliminary evidence that engagement can enhance the overall ESG quality of fund holdings.

4.2 | Voting, Engagement, and Fund/Investment Company Size

In the second analysis, we examine how fund and investment company size, in interaction with engagement, are related to fund voting behavior. Other studies (ShareAction, 2022) indicate that larger investors support shareholder proposals significantly less often. As voting power is often clustered among the largest asset managers, we examine the relationship between fund and investment company size and shareholder proposal approval rates in two separate ways. On the one hand, we look at the size of the funds and the investment companies, and on the other hand, we consider whether a fund belongs to the largest six asset managers (Big Six), which together represent approximately 50% of the assets in our sample. We run panel regressions on funds' approval rates to analyze the relationship between funds and investment company size, engagement, and voting. We include fund style- and year-fixed effects.[9] Standard errors are clustered by the fund. The variables are standardized to allow coefficient comparison (Table 4).

The size of the investment company (TNAC) is significantly negatively related to all analyzed approval rates. The size of the fund (TNA) shows ambiguous coefficients. While insignificant overall (Columns 1 and 3) and with respect to climate change (Column 4), approval rates of larger funds are lower for human and workers' rights proposals (Column 5) and higher for board governance proposals (Column 6). These mixed results suggest that differing portfolio structures or mandates may drive fund-level variation, while investment company-level size exerts a more consistent influence. Since the effect is larger for TNAC in any case, this supports the interpretation that voting discretion is exercised more centrally at the investment company level rather than at the individual fund level.[10]

To go into even more depth regarding investment company size, the Big Six companies have significantly lower approval rates for shareholder proposals overall when used exclusively (Column 2). This effect is especially related to governance proposals (Column 5) but unrelated to climate change and human and workers' rights (Columns 3 and 4). This pattern suggests that the largest fund families selectively oppose governance-focused shareholder activism, possibly reflecting strategic alignment with corporate

TABLE 3 | Engagement and ESG.

Sustainability ratings	(1) Morningstar Fund Globe Rating	(2) Portfolio Sustainability Rating	(3) ESG Managed Risk Score	(4) ESG Risk Exposure Score	(5) Environmental Score	(6) Social Score	(7) Governance Score
Overall Engagement Score	0.00	0.04*	0.08***	0.12***	0.06***	0.04***	0.01***
TNAC	−0.06***	0.16***	0.10***	0.26***	0.10***	−0.00	0.00
TNA	−0.04***	0.09***	−0.00	0.08**	−0.02	0.06***	0.03***
Turnover	−0.00**	0.00	−0.00***	−0.00**	0.00	−0.00	−0.00***
Expense Ratio	−0.11**	0.63***	0.61***	1.24***	0.36***	−0.21***	−0.05
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Style fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.095	0.451	0.602	0.394	0.316	0.390	0.366
N	4876	4887	4887	4887	4083	4083	4083

Notes: This table shows the impact of engagement on sustainability ratings of the fund and its holdings. The first rating is on a fund level, the *Morningstar Fund Globe Rating*. The following ratings are all average scores of the portfolio of firms a fund is invested in, *Portfolio Sustainability Rating*, *ESG Managed Risk Score*, *ESG Risk Exposure Score*, *Environmental Score*, *Social Score*, and *Governance Score*. *Overall Engagement Score* reflects the combined engagement methods carried out by the investor. The *logarithmized TNAC* of the company, the *logarithmized TNA* of the fund, the *turnover ratio*, and the *expense ratio* are used as control variables. Year and fund style fixed effects are included. Standard errors are clustered by funds. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

TABLE 4 | Size and engagement effects in mutual fund voting.

Shareholder proposals approval rate	(1) General	(2) General	(3) Climate change	(4) Human and workers' rights	(5) Board governance	(6) General
TNA	0.17		−0.58	−1.01**	1.59**	−3.84***
TNAC	−4.81***		−5.79***	−3.61***	−3.04***	0.22
Big six		−16.09***	−3.62	−0.09	−11.76***	21.17**
Overall Engagement Score						−1.05***
Big Six × Overall Engagement Score						−3.18***
Expense Ratio	4.33**	8.25***	3.45	−0.83	11.31***	0.01
Turnover	0.02	−0.00	0.06*	0.03	0.02	4.62**
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Style fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.211	0.214	0.191	0.224	0.107	0.226
N	5169	5169	2501	2824	3276	5169

Notes: This table shows the effect of size on funds' approval rates during the sample period from 2015 to 2020. Size is proxied by the logarithmized TNA (*TNA*) of the fund and the logarithmized TNAC (*TNAC*) of the investment company. *Big Six* is a dummy that equals one if the mutual fund belongs to one of the six largest asset management companies within our sample. *Overall Engagement Score* reflects the combined engagement methods carried out by the investor. The *expense ratio* and the *turnover ratio* are used as control variables. Year and fund style fixed effects are included. Standard errors are clustered by funds. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

management on control-related matters. To combine this finding with the previous finding on engagement, we interact our Big Six dummy with the overall engagement score. The results indicate that within the Big Six, there is a negative relationship between engagement and voting (−3.18, Column 6). This indicates that when the largest fund families engage more intensely with firms, they become even less likely to support ESG-related shareholder proposals. In other words, if the Big Six heavily engages with portfolio firms, then they are less likely to vote against the management. This reinforces the idea that engagement is used as a substitute for voting, especially by dominant institutions that may prioritize private influence over public dissent.

We further examine how fund family size relates to the type of engagement activity employed. As shown in Table A5 in the Appendix, larger fund families (measured by TNAC) are significantly more likely to engage through direct, resource-intensive methods such as visits of operations and meetings with management. In contrast, they are less likely to rely on indirect forms such as letters and e-mails. This strategic choice of engagement channels—favoring direct personal interaction—further supports the notion that large asset managers cultivate close relationships with management. These results suggest that large investment firms may prefer personal channels of influence, aligning with the interpretation that they engage behind the scenes rather than through public confrontation in shareholder meetings. Taken together, our findings suggest that scale not only reduces public support for ESG proposals but also shapes how and why investor voice is exercised, primarily through engagement rather than the formal voting process.

4.3 | Voting and Voting Activity

In this subsection, we investigate how the voting activity, that is, how actively a voter funds is related to their approval rates for ESG-related proposals. "Voting activity" is defined as the proportion of proposals a fund voted on in a given year relative to the total number of proposals for which it was eligible to vote. This relative measure accounts for the fund's number of holdings and ensures that the variable captures engagement behavior rather than simply reflecting fund size or portfolio width. Furthermore, we analyze the effect of filing our own shareholder proposals on approval rates. Filing shareholder proposals is nowadays rather cheap and requires significantly less resources and time in the United States. Nonetheless, a fund exposes itself by advocating for ESG topics. To explore the relationship between investor activism and voting behavior, we examine two key variables: the frequency of voting activity and whether a fund actively submits its shareholder proposals. Specifically, we estimate panel regressions of voting approval rates on the number of votes cast by a fund (Activity) and on Active Filing, a dummy variable equal to one if the fund has filed shareholder proposals. The results are reported in Table 5.

Voting activity is negatively related to shareholder proposal approval rates in general (−0.03, Column 1). To analyze this in more detail and to consider a potentially nonlinear relation, we alternatively use dummies to sort investors into those with low (base case), medium, and high voting activity. The coefficients in Column 2 show that highly active voters vote significantly less in favor of shareholder proposals (−5.19) while medium voters do not (−0.79). Looking at thematic proposals, a similar pattern is shown for human workers' rights and board governance (Columns 4 and 5), while both medium and highly active voters vote significantly less in favor of climate change proposals compared to inactive voters (Column 3).[11]

While our measure of voting activity controls for fund size, we still observe that funds with higher voting frequency are generally less supportive of shareholder proposals (see Appendix A1). This suggests that frequent voters may follow internal guidelines or management recommendations more mechanically, rather than scrutinizing individual proposals. In contrast, funds that vote selectively may do so in response to specific ESG concerns, leading to a higher likelihood of supporting shareholder proposals when they participate. A possible explanation is that the increased volume of proposals raises due diligence demands, which may discourage support when review capacity is limited. Prior research confirms this mechanism: Iliev and Lowry (2015) document that mutual funds rely more heavily on proxy advisor recommendations when proposal volume is high, and Ertimur et al. (2013) show that proxy advisor influence is particularly strong when investors face resource constraints.

Finally, investors who actively file shareholder proposals show significantly higher approval rates for all kinds of shareholder proposals (e.g., 31.85, Column 1). While part of this effect may be due to their support for their own proposals, we are unable to distinguish between votes on self-filed versus external proposals due to data limitations. Nevertheless, the strong association is also consistent with broader ESG commitment: many active filers are PRI signatories and exhibit voting behavior aligned with sustainability goals.

4.4 | Voting and the Disclosure of Voting Records

Next, we analyze whether funds that proactively disclose their voting behavior also vote more in favor of ESG-related proposals. Proactive disclosure, in our case, means that the funds inform their clients regularly on how they vote (e.g., via e-mail), in addition to the regulatory requirements as part of their engagement strategy. We expect that investors who proactively communicate their voting results above legal requirements as part of their engagement strategy tend to be more supportive due to public scrutiny. *Proactive disclosure* is a dummy that equals one for proactive disclosure of voting results to clients and beneficiaries, in addition to regulatory requirements. *No. of given examples* reflects the number of examples for which investors voluntarily provided specific details. To provide further insights, we also classify the funds according to the number of examples reported: no examples, a medium number of examples (1 to 4 examples), or a high number of examples (5 to 10 examples). The panel regressions are run with the usual controls and fixed effects. The results are presented in Table 6.

Proactive disclosure as a part of an engagement strategy is significantly positively related to voting approval rates. If a fund discloses proactively, the approval rate in general is 2.09 pp higher (Column 1), especially for climate change-related proposals with 5.4 pp (Column 3). The number of examples voluntarily provided in their PRI reports is also positively related to approval rates. As

TABLE 5 | Voting activity and mutual fund voting.

	(1)	(2)	(3)	(4)	(5)
Shareholder proposals approval rate	**General**	**General**	**Climate change**	**Human and workers' rights**	**Board governance**
Voting Activity	−0.03***				
Low Activity		Base case	Base case	Base case	Base case
Medium Activity		−0.79	−7.05***	−2.27	−2.83
High Activity		−5.19***	−6.37**	−3.73**	−5.65**
Active Filing	31.85***	32.49***	37.84***	36.29***	41.84***
TNAC	−4.14***	−4.13***	−5.33***	−2.85***	−3.84***
TNA	0.29	0.32	−0.38	−0.93*	1.78***
Turnover	0.03	0.03	0.07**	0.03	0.04
Expense Ratio	4.36**	4.33**	3.78	−0.67	12.03***
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Style fixed effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.241	0.242	0.217	0.252	0.123
N	5169	5169	2501	2824	3276

Notes: This table shows the relationship between voting activity of PRI signatories and funds' approval rate during the sample period from 2015 to 2020. *Voting Activity* indicates the number of occasions on which a fund has cast a vote. *Low Activity*, *Medium Activity*, and *High Activity* reflect terciles of *Voting Activity*. *Active filing* is a dummy that equals one if the investor has filed shareholder proposals. The *logarithmized TNAC* of the company, the *logarithmized TNA* of the fund, the *turnover ratio* and the *expense ratio* are used as control variables. Year and fund style fixed effects are included. Standard errors are clustered by funds. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

the number of voluntarily supplied examples increases, mutual funds significantly more often support shareholder proposals overall (Column 2) and across all proposal categories (Columns 3 to 5). The only exception is human and workers' rights, where medium shows a higher coefficient than high (Column 4). If we include the overall engagement score, the results for the proactive disclosure remain positive and significant (2.07, Column 6). These results indicate that regulators can improve voting behavior by imposing stricter disclosure rules.[12]

4.5 | The Role of Service Providers in Voting

Asset managers are subject to strict investor protection rules and associated resource costs for underlying due diligence, and the existence of significant economies of scale. Therefore, many asset managers use the services of firms that specialize in voting advice (Spatt 2021).

To better understand the role of service providers in the voting process, we conduct an analysis of investors' service provider employment on approval rates in Table 6. We exploit a data point that explicitly reports for what purpose investors employ service providers. *No Use* is a dummy that equals one if the investor reports making voting decisions without the use of service providers (base case, therefore omitted). *Guidance* is a dummy that equals one if the investor makes voting decisions herself but hires service providers to make voting recommendations and/or to provide research. *Pre-defined Scenarios* is a dummy that equals one if the investor hires service providers to make voting decisions on her behalf, except in some pre-defined scenarios. *Complete Outsourcing* is a dummy that equals one if the investor hires service providers to make all voting decisions on her behalf. The four dummies are mutually exclusive.

With increasing support by service providers, we expect an increasing approval rate for shareholder proposals. It has already been shown that service providers significantly influence voting results at shareholder meetings in general (Malenko and Shen 2016; Li 2018). They also have a strong focus on sustainability, particularly in the area of governance, and recommend these values to their clients (ShareAction 2020; Dey et al. 2024). Therefore, a more decisive influence of the service provider on the manager should lead to higher approval rates for shareholder proposals. However, no study has analyzed how the intensity of service provider use affects the voting behavior of individual investors. In the following, we examine this using our usual panel regression setup.

The results in Table 7 show that service provider use in general has a positive effect on approval rates (18.21, Column 1). Going into further detail by splitting service provider use into different intensities shows a steadily increasing effect on funds' approval rates, with the service providers' increasing influence on the investor's voting behavior (Column 2). If service providers are engaged in providing voting recommendations that investors use to *guide* their voting decisions, investors significantly approve shareholder proposals more often (15.37). Furthermore, if investors hire a service provider who makes voting decisions on their behalf, except in *some-predefined scenarios*, the effect on the approval rate further increases (27.67). Finally, when voting decisions are *completely outsourced* to service providers,

TABLE 6 | Engagement, disclosure and mutual fund voting.

	(1)	(2)	(3)	(4)	(5)	(6)
Shareholder proposals approval rate	**General**	**General**	**Climate change**	**Human and workers' rights**	**Board governance**	**General**
Proactive Disclosure	2.09***	2.08***	5.44***	2.49***	4.52***	2.07***
No of given examples	0.14***					
None (*zero*)		Base case	Base case	Base case	Base case	
Medium (*1–4*)		0.88***	0.11	2.33***	1.72***	0.91***
High (*5–10*)		1.12***	2.69***	1.41***	3.52***	1.15***
Overall Engagement Score						0.05
TNAC	−0.33***	−0.33***	−1.12***	−0.58***	−0.74***	−0.34***
TNA	−0.06	−0.06	−0.11	−0.17*	0.08	−0.06
Turnover	−0.00	−0.00	0.01	−0.00	−0.01*	−0.00
Expense Ratio	1.45***	1.48***	2.29***	1.41***	3.46***	1.46***
Style fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.294	0.294	0.215	0.199	0.177	0.294
N	5169	5169	2501	2824	3276	5169

Notes: This table shows the relationship between disclosing information of PRI signatories and funds' approval rate during the sample period from 2015 to 2020. *Proactive disclosure* is a dummy on proactive disclosure of voting records to clients or beneficiaries, in addition to regulatory requirements. *No. of given examples* indicates the number of voluntarily voting examples on which an investor provided specific details on in the respective year. *Overall Engagement Score* reflects the combined engagement methods carried out by the investor. The *logarithmized TNAC* of the company, the *logarithmized TNA* of the fund, the *turnover ratio* and the *expense ratio* are used as control variables. Year and fund style fixed effects are included. Standard errors are clustered by funds. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

TABLE 7 | Use of service providers and mutual fund voting.

Shareholder proposals approval rate	(1) General	(2) General	(3) Climate change	(4) Human and workers' rights	(5) Board governance
Use of Service Provider	18.21***				
No Use		Base case	Base case	Base case	Base case
Guidance		15.37***	20.33***	12.13***	16.28***
Pre-defined Scenarios		27.67***	28.90***	16.04***	29.48***
Complete Outsourcing		38.91***	50.40***	39.93***	42.28***
TNAC	−5.04***	−4.23***	−5.71***	−3.13***	−4.02***
TNA	0.27	0.44	−0.23	−0.72	1.98***
Turnover	0.02	0.01	0.06**	0.01	0.02
Expense Ratio	5.16***	5.76***	5.95***	1.05	14.40***
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Style fixed effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.243	0.280	0.242	0.275	0.144
N	5169	5169	2501	2824	3276

Notes: This table shows the relationship between the use of service providers of PRI signatories and funds' approval rates during the sample period from 2015 to 2020. *No Use* is a dummy that equals one if the investor makes voting decisions without the use of service providers. *Guidance* is a dummy that equals one if the investor hires service providers who make voting recommendations and/or provide research that they use to guide their voting decisions. *Pre-defined Scenarios* is a dummy that equals one if the investor hires service providers who make voting decisions on their behalf, except in some pre-defined scenarios where they review and make voting decisions. *Complete Outsourcing* is a dummy that equals one if the investor hires service providers who make voting decisions on their behalf. The *logarithmized TNAC* of the company, the *logarithmized TNA* of the fund, the *turnover ratio* and the *expense ratio* are used as control variables. Year and fund style fixed effects are included. Standard errors are clustered by funds. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

shareholder proposals are often approved (38.91) compared to not using any service provider (base case). The findings for thematic shareholder proposals are similar with the coefficients for climate change (Column 3) being slightly higher than for human and workers' rights and board governance (Columns 4 and 5). These findings highlight the importance of service providers in the voting process of signatories and in promoting sustainable business practices.

4.6 | The Impact of Collaborative Engagement

Collaborative engagement, where institutional investors join forces to influence corporate ESG practices, has become an increasingly prominent stewardship tool. Recent work has shown that such efforts—often organized through initiatives like Climate Action 100+ or the PRI's collaborative platform—can enhance engagement outcomes and signal stronger ESG commitment (e.g., Dimson et al. 2015; Mülbert and Sajnovits 2024). However, how collaborative engagement affects proxy voting behavior remains underexplored. In this analysis, we examine whether funds that engage collaboratively vote differently on ESG-related shareholder proposals.

Table 8 shows that collaborative engagement is strongly associated with higher shareholder proposal approval rates. The effect is substantial in magnitude and statistically significant (Column 1), with engaged funds showing a roughly 6.75 percentage point higher general approval rate. This finding suggests that collaborative engagement and proxy voting are complementary mechanisms for ESG influence, at least for certain engagement goals.

To better understand heterogeneity across engagement motives, we break down collaborative efforts into three categories. We find that engagements aimed at understanding ESG strategy and management ("Understand ESG") and those intended to influence corporate behavior ("Influence Corporate Practice") are positively and significantly associated with higher proposal support (Columns 2–5). For example, "Understand ESG" is consistently significant across all issue types, with particularly strong effects for human and workers' rights (0.21 percentage points, Column 4). Engagements that aim to influence corporate practice show more mixed results: they increase support for board governance but are negatively associated with support for worker rights, possibly indicating selective strategic priorities or trade-offs. Interestingly, engagements focused solely on encouraging disclosure ("Encourage Disclosure") show no meaningful impact on voting and are even negatively associated with climate-related proposal support (Column 3). This suggests that disclosure-driven engagements may not translate into stronger shareholder support, potentially because they are more informational and less action-oriented.

4.7 | The Role of PRI Membership in Voting

Institutional investors increasingly sign stewardship codes such as the UN PRI, which encourage them to incorporate ESG issues

TABLE 8 | Collaborative engagement and mutual fund voting.

Shareholder proposals approval rate	(1) General	(2) General	(3) Climate change	(4) Human and workers' rights	(5) Board governance
Collaborative Engagement	6.75***				
Encourage Disclosure		−0.13	−0.14**	0.18***	−0.06
Understand ESG		5.47***	0.19***	0.21***	0.14***
Influence Corporate Practice		5.21***	0.05	−0.30***	0.20***
TNAC	−5.02***	−4.91***	−0.13***	−0.12***	0.04***
TNA	0.21	0.08	−0.02	−0.01	−0.08***
Turnover	0.01	0.02*	0.00*	0.00	−0.00
Expense Ratio	4.10***	3.54***	0.20***	0.10**	0.44***
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Style fixed effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.223	0.280	0.168	0.186	0.110
N	5169	5169	1579	1754	2406

Notes: This table shows the impact of collaborative engagement on funds' approval rates during the sample period from 2015 to 2020. *Collaborative Engagement* is a dummy indicating if the fund is conducting collaborative engagement. The goal of the collaborative engagement differs in three areas: Collaborative engagement is either used to encourage improved/increase ESG disclosure (*Encourage Disclosure*), to gain an understanding of ESG strategy and/or management (*Understand ESG*), or to influence corporate practice (*Influence Corporate Practice*). The *logarithmized TNAC* of the company, the *logarithmized TNA* of the fund, the *turnover ratio* and the *expense ratio* are used as control variables. Year and fund style fixed effects are included. Standard errors are clustered by funds. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

TABLE 9 | PRI membership and mutual fund voting.

Shareholder proposals approval rate	(1) General	(2) General	(3) Climate change	(4) Human and workers' rights	(5) Board governance
PRI Membership	0.43**				
No membership		Base case	Base case	Base case	Base case
Short Membership		0.45**	0.96**	1.07***	1.33***
Medium Membership		0.42*	1.08**	1.28***	2.26***
Long Membership		0.52**	1.13**	0.90**	3.20***
TNAC	−0.31***	−0.31***	−0.99***	−0.42***	−0.72***
TNA	−0.16***	−0.16***	−0.30***	−0.30***	−0.09
Turnover	−0.00	−0.00	0.01	0.00	−0.01*
Expense Ratio	0.56***	0.56***	0.75*	0.42	1.38***
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Style fixed effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.155	0.280	0.242	0.275	0.144
N	9707	5169	2501	2824	3276

Notes: This table shows the relationship between being a PRI signatory, the membership length, and funds' approval rates during the sample period from 2015 to 2020. *PRI Membership* is a dummy that equals one if the investor is a PRI member. The length of the membership is split up between a *short membership* (up to 3 years), *medium membership* (up to 7 years), and *long membership* (more than 7 years). The *logarithmized TNAC* of the company, the *logarithmized TNA* of the fund, the *turnover ratio* and the *expense ratio* are used as control variables. Year and fund style fixed effects are included. Standard errors are clustered by funds. *, and ** denote statistical significance at the 5%, and 1% level, respectively.

into ownership practices, including voting and engagement. Prior research suggests that PRI signatories are more likely to commit to sustainable investing principles, with the earliest signatories showing the highest commitment to the initiative's principles (e.g., Bauckloh et al. 2023). However, whether such commitments translate into concrete voting behavior remains an open question. In particular, the effect of PRI membership duration on proxy voting support for ESG-related proposals has been underexplored. We address this gap by examining how PRI membership—and its intensity, measured by membership length—relates to funds' approval rates for different types of shareholder proposals.

Table 9 shows that PRI membership is associated with a significantly higher overall approval rate for shareholder proposals (Column 1). Importantly, when we decompose PRI membership by length, we observe a clear gradient: longer membership is consistently associated with stronger support for shareholder proposals across all issue areas. For example, long-term PRI members support board governance proposals at rates nearly three times higher than non-members (Column 5), while also exhibiting significantly higher support for climate change (Column 3). These results suggest that the commitment to responsible investment deepens over time, and that sustained PRI membership may reflect stronger internalization of ESG principles. Particularly, early signatories are likely to have joined out of intrinsic motivation and a genuine commitment to ESG goals, whereas later signatories may have been driven more by external pressure or reputational considerations. Additionally, the pattern we found supports the view that institutional investor stewardship becomes more aligned with ESG objectives, the longer they are engaged in responsible investment networks.

5 | Conclusion

By combining two datasets from Morningstar and PRI to a comprehensive investor behavior dataset, our study is the first to identify specific drivers that are related to sustainable voting. We observe significant negative effects from fund and investment company size and find that the largest asset managers show below-average support. Due to our unique setting, we can investigate the relationship between engagement and voting and find that they are negatively related. This pattern is particularly strong among the Big Six fund families and among those engaging through direct methods such as meetings or site visits. Further, our results reveal that funds that always cast votes are more likely to vote in accordance with management recommendations, whereas proactive self-disclosure of voting records is positively related to shareholder proposal support. Funds that file shareholder proposals themselves show the highest approval rates, consistent with stronger ESG commitment. Furthermore, employing service providers has a heavy effect on approval rates, and the effect becomes more pronounced with the intensity of service provider use. We also find that longer PRI membership is associated with stronger ESG support, and that collaborative engagement focused on influencing ESG practices leads to higher approval rates. Although fund-level ESG ratings do not improve significantly with engagement, high-engagement funds increasingly allocate capital toward firms to support their improving ESG profiles, indicating a portfolio-level sustainability effect. In economic terms, these effects are substantial: while engagement overall is linked to about a 3% lower support rate relative to the 42.9% baseline, the use of service providers increases support by more than 42%, and collaborative engagement by around 16%.

Our insights have important practical implications. First, the results concerning the relationship between voting and engagement suggest that the sustainability of asset managers should not be assessed by only considering voting records. It seems that some asset managers prefer to take a less visible approach and engage with companies rather than publicly pillory them. Thus, voting and engagement need to be considered in combination. Second, our results reveal who really promotes sustainability in companies. Service providers, in particular, seem to have ESG issues more strongly on their agenda than investors themselves. This may be because service providers are more serious about the financial impact of sustainability. Third, our findings on the disclosure of voting records should further motivate regulators to introduce stricter disclosure rules. In the EU, for instance, the disclosure of mutual fund voting records is still not mandatory.

Our work is subject to certain limitations, which motivates further research. Due to strict filing requirements of shareholder proposals and the lack of mutual fund disclosure requirements outside the United States, we can only thoroughly investigate investor behavior operating in the United States. However, as a critical engagement tool, shareholder proposals are either significantly less common in other regions (primarily due to stricter regulatory filing requirements) or due to a lack of regulatory guidance on mandatory disclosure of voting records. Therefore, we believe it will also be difficult for future research to take a global view of voting behavior.

Various further future analyses can be derived from our work. Since our work is limited to active investors, there might be differences between active and passive investing. This difference raises questions about how ETFs are aligned on sustainability issues and what policies, processes, and strategies are implied on ESG issues (Appel et al. 2016; de Groot et al. 2021).

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Conflicts of Interest

The authors declare no conflicts of interest.

Endnotes

[1] https://www.sec.gov/rules-regulations/2003/01/disclosure-proxy-voting-policies-proxy-voting-records-registered-management-investment-companies

[2] https://www.blackrock.com/corporate/insights/investment-stewardship

[3] In the following, we use fund and investment company as synonyms except where explicitly differentiated.

[4] The categories are board governance, climate change, director elections, environment, ESG governance arrangements, executive compensation, human and workers' rights, humane treatment of animals, militarism and aggression, other E&S, other governance, political influence, public health/product safety, shareholder meetings and proxy processes, shareholder rights and strategy/business.

[5] Table A1 in the Appendix provides an overview of the variables in the merged dataset.

[6] The PRI claims that the data reported by the signatories is credible and of high quality due to the following reasons: (1) reports are publicly available on the PRI website. Public scrutiny incentivizes signatories to report correctly. (2) The PRI runs validation checks (contradictory responses, major changes compared to the previous year, and outlier identification) on a variety of indicators after receiving the final data. In case of discrepancies, the PRI contacts the signatory and clarifies information before publishing. (3) The PRI validates closed-end questions by analyzing qualitative information. (4) The PRI uses reported data to identify signatories for follow-up interviews or consultations. (5) Recurring themes such as climate change policies appear throughout the reporting framework and enable the PRI to cross-check the integrity of the responses. (6) The PRI compares the reports of signatories holding similar assets with each other and conducts several tests to check the quality and consistency of the data.

[7] To provide further robustness, we have examined both the results with a restriction to the shorter period from 2015 to 2018, and the omission of 2017 and subsequent extrapolation. Our results remain robust in each case.

[8] Identifying a valid instrument at the fund level is challenging, as engagement decisions are shaped by internal strategies and governance structures that are difficult to isolate exogenously. As an alternative, we include a fund-level governance score as a control to account for unobserved fund characteristics. Our main results remain robust to this addition.

[9] Similar results are depicted in Table A3 in the Appendix using summary statistics clustered by fund/investment company size.

[10] In the Appendix in Table A4 we compare shareholder approval rates across and within fund families. This analysis shows lower within-family variation and highlights that the fund families vote more consistently, supporting the interpretation that voting decisions are made primarily at the family level. In further tests, we find that this is especially true for the Big Six versus the middle or small tier of fund families.

[11] We tested interaction terms between the engagement score and voting activity. These interactions are generally insignificant and do not improve explanatory power. This likely reflects the fact that our overall engagement score already captures variation in engagement practices and correlates with related factors such as voting activity.

[12] We tested interaction terms between the engagement score and disclosure activity. These interactions are generally insignificant and do not improve explanatory power. This likely reflects the fact that our overall engagement score already captures variation in engagement practices and correlates with related factors such as disclosure behavior.

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Appendix

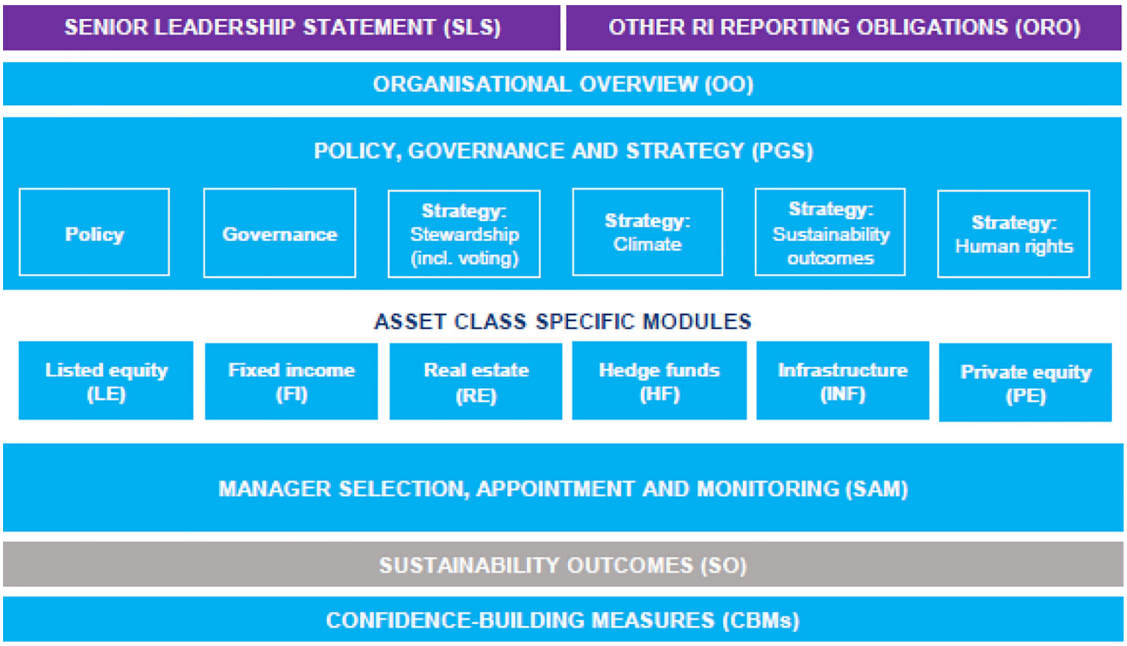

FIGURE A1 | PRI reporting. This figure shows what reporting looks like in 2025 for PRI members. We extract data from various models to extract all relevant strategy, governance, voting and engagement-related variables. *Source:* PRI Reporting Guidelines 2025; www.unpri.org.

TABLE A1 | Definitions of variables.

Management proposals approval rate	Percentage of management proposals that were supported by a fund.
Shareholder proposals approval rate	Percentage of shareholder proposals that were supported by a fund.
Climate change approval rate	Percentage of climate change-related shareholder proposals that were supported by a fund.
Human rights approval rate	Percentage of human rights-related shareholder proposals that were supported by a fund.
Board governance approval rate	Percentage of board governance-related shareholder proposals that were supported by a fund.
TNA	Total net assets
TNAC	Total net assets of the fund's investment company
Turnover Ratio	Turnover Ratio of the fund
Expense Ratio	Expense Ratio of the fund
Big Six	Dummy if a fund belongs to the Big Six investment companies in the sample.
Letters and E-mails	Reflect the method of carried out engagement actions in a score from zero to three.
Roadshow Participation	
Visits of Operations	
Meetings with Management	

(Continues)

TABLE A1 | (Continued)

Overall Engagement Score	Reflects the combined engagement methods carried out by the investor.
Voting Activity	Indicates the number of occasions on which a fund has cast a vote
Low Activity	Reflect terciles of *Voting Activity*.
Medium Activity	
High Activity	
Active Filing	Is a dummy that equals one if the investor has filed shareholder proposals.
Proactive Disclosure	Is a dummy on proactive disclosure of voting records to clients or beneficiaries, in addition to regulatory requirements.
No of given examples	Indicates the number of voluntarily voting examples on which an investor provided specific details on in the respective year.
None (*zero*)	Are category dummies reflecting the number of given examples.
Medium (*1–4*)	
High (*5–10*)	
Use of Service Provider	Is a dummy that equals one if the investor uses a service provider.
No Use	Is a dummy that equals one if the investor makes voting decisions without the use of service providers.
Guidance	Is a dummy that equals one if the investor hires service providers who make voting recommendations and/or provide research that they use to guide their voting decisions.
Pre-defined Scenarios	Is a dummy that equals one if the investor hires service providers who make voting decisions on their behalf, except in some pre-defined scenarios where they review and make voting decisions.
Complete Outsourcing	Is a dummy that equals one if the investor hires service providers who make voting decisions on their behalf.

TABLE A2 | Management and Shareholder Proposals Approval Rate.

Management proposals approval rate	
Shareholder Proposals Approval Rate	−0.11***
Overall Engagement Score	0.06
Shareholder Proposals Approval Ratex Overall Engagement Score	0.00*
TNAC	−0.02
TNA	0.56***
Turnover	−0.00
Expense Ratio	0.12
Year fixed effects	Yes
Style fixed effects	Yes
Adjusted R^2	0.223
N	5154

Notes: This table shows the relation between management and shareholder proposal approval rates. *Overall Engagement Score* reflects the combined engagement methods carried out by the investor. The logarithmized TNAC of the company, the logarithmized TNA of the fund, the turnover ratio, and the expense ratio are used as control variables. Year and fund style fixed effects are included. Standard errors are clustered by funds. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

TABLE A3 | Summary statistics by fund/investment company size.

Size Deciles	(1) TNA	(2) TNAC	(3) Turnover Ratio	(4) Expense Ratio	(5) Management Support	(6) Shareholder Support	(7) Cast Votes	(8) Climate Change Support	(9) Human Rights Support	(10) Board Governance Support
1	0.00	4.98	62.5%	1.6%	93.5%	47.8%	40.2	43.6%	35.6%	38.9%
2	0.01	4.50	57.6%	1.2%	93.3%	47.7%	38.9	39.0%	27.7%	43.8%
3	0.01	4.19	60.4%	1.0%	92.7%	51.5%	44.9	43.6%	33.4%	46.1%
4	0.02	4.87	58.3%	1.0%	93.3%	46.6%	43.8	35.4%	31.0%	42.7%
5	0.04	5.96	55.1%	1.0%	94.2%	44.2%	46.8	37.6%	26.5%	43.0%
6	0.06	5.97	56.3%	1.0%	94.3%	44.1%	50.6	38.3%	29.3%	42.6%
7	0.10	7.47	53.5%	0.9%	95.1%	43.7%	60.4	37.6%	26.4%	35.1%
8	0.17	8.28	51.6%	0.8%	95.9%	38.4%	53.2	29.6%	21.9%	34.3%
9	0.34	11.20	45.2%	0.8%	95.7%	36.5%	64.7	29.2%	24.9%	36.0%
10	1.33	20.20	32.8%	0.6%	96.1%	28.3%	87.8	16.5%	14.8%	27.1%
Big Ten	0.43	19.60	47.2%	0.8%	96.1%	31.6%	63.8	22.6%	20.1%	26.3%
Big Six	0.56	27.90	47.9%	0.7%	96.5%	27.3%	67.3	18.7%	19.3%	21.4%
Big Three	1.05	26.50	43.5%	0.6%	96.6%	21.8%	75.0	7.2%	5.3%	29.3%
Total	0.21	7.76	53.4%	1.0%	94.4%	42.9%	53.1	34.1%	26.5%	38.4%
10-1	1.33	15.22	−29.8%	−1.0%	2.6%	−19.5%	47.6	−27.1%	−20.8%	−11.7%

Notes: This table shows descriptive statistics for all funds within our sample on an annual basis sorted by fund/investment company size. It shows the logarithmized total net assets (*TNA*) of the fund, the logarithmized sum of the total net assets of the underlying investment company (*TNAC*), the *turnover ratio*, and the *expense ratio* of the fund. The last five columns report *approval rates* of mutual fund in the respective proposal categories: *management proposals*, *shareholder proposals*, *climate change, human rights*, and *board governance*. All data shown are obtained from Morningstar Direct.

TABLE A4 | Voting dispersion.

Voting dispersion	I.	II.	Diff.
Average across All Funds (I.) vs. Within Fund Family (II)	27.96	14.89	13.08***
All excluding Big Six (I.) vs. Big Six (II)	15.42	12.81	2.61***
Middle Tier (I.) vs. Big Six (II)	16.08	12.81	3.27***
Small Tier (I.) vs. Big Six (II)	14.51	12.81	1.70***
Middle Tier (I.) vs. Small Tier (II)	16.08	14.51	−1.57***

Notes: This table shows mean comparison tests between different groups regarding their voting dispersion. The first comparison shows the *Average* voting dispersion (measured as the standard deviation of shareholder proposal approval rate each year) for all funds vs. the respective voting dispersion within a fund family. Afterwards, within fund family voting dispersion is tested across different groups (All excluding Big Six, Big Six, middle tier (mid 50% company TNA), and small tier (bottom 30% company TNA). *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

TABLE A5 | Engagement activities and fund size.

	(1) Overall engagement score	(2) Letters and e-mails	(3) Roadshow participation	(4) Visit of operations	(5) Meetings with management
TNAC	0.09***	−0.09***	0.02***	0.02***	0.01***
TNA	0.04**	−0.00	0.01***	0.00	0.01
Turnover	−0.00***	−0.00	−0.00	−0.00***	−0.00***
Expense Ratio	0.40***	−0.09***	0.19***	0.14***	−0.02
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Style fixed effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.024	0.069	0.034	0.021	0.016
N	5169	5169	5169	5169	5169

Notes: This table shows the relationship between several engagement scores and activities and fund size, e.g., the *logarithmized TNAC* of the company and the *logarithmized TNA* of the fund. The *turnover ratio* and the *expense ratio* are used as control variables. Year and fund style fixed effects are included. Standard errors are clustered by funds. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.