The Voting Behavior of Women-Led Mutual Funds [*]

Alberta Di Giuli[†]   Alexandre Garel[‡]   Arthur Petit-Romec[§]

December, 2022

Abstract

This paper examines the voting behavior of women-led mutual funds. We find that women-led mutual funds are more likely to support environmental and social (ES) proposals, but not governance ones, and their voting support is more pronounced for proposals explicitly related to ES risks. Among ES proposals, they support more environmental proposals. Women-led mutual funds are more likely to vote with management in firms headed by female CEOs. They are also more likely to support female candidates in director elections, especially so when there is a shortage of female directors. Finally, women-led mutual funds are not more likely to follow ISS recommendations than other funds. Our results suggest that gender differences in fund management teams influence their voting behavior.

Keywords: Gender Diversity, Shareholder Voting, Mutual Funds

JEL Classification: G23, G30, M14

[†]Finance Department, ESCP Business School - *adigiuli@escp.eu*
[‡]Finance Department, Audencia Business School - *agarel@audencia.com*
[§]Finance Department, Toulouse Business School - *arthur.romec@gmail.com*

1 Introduction

Anecdotal and survey evidence indicates that women are largely underrepresented in the finance industry, especially in the field of investment management.[1] To address the lack of female representation, several long-run campaigns aim to get more women into portfolio roles, such as Girls Who Invest.[2] Likewise, industry-wide initiatives such as the Gender Diversity Partner Program which includes, among other asset managers, Fidelity International and Vanguard, seek to tackle the underrepresentation of women. Moreover, several institutional investors have started to require investment firms to improve gender diversity.[3]

These recent developments, combined with evidence of fundamental differences in the preferences and style of leadership of men and women (e.g., Croson and Gneezy 2009; Matsa and Miller 2013; Francis et al. 2021), raise the question of the implications of greater female representation for investment funds. The finance literature on gender differences already shows that, in the boardroom, women allocate more effort to monitoring (Adams and Ferreira 2009), offer specific functional expertise (Kim and Starks 2016), value more benevolence and universalism (Adams and Funk 2012), and undertake fewer workforce reductions (Matsa and Miller 2013). We seek to examine whether gender differences in investors' management teams also translate into different voting behaviors.[4]

More specifically, we explore the implications of female representation for the voting be-

---

1. According to a recent survey conducted by Morningstar, at the end of 2019, only 18 percent of U.S. fund managers were women. See: https://www.morningstar.co.uk/uk/news/210150/diversity-best-practices-in-the-asset-management-industry.aspx

2. Girls Who Invest is a non-profit organization founded in 2015 and dedicated to increasing the number of women in portfolio management and executive leadership in the asset management industry. Their benchmark for success is to have 30% of the world's investable capital managed by women by 2030.

3. For example, UBS has launched a portfolio that invests solely in hedge funds led by women (see https://www.ft.com/content/dab5a2b3-c083-411b-b2d1-969d6bcf862b). David Swensen, Yale's Chief Investment Officer, has publicly instructed the firms who manage the University's endowment to diversify their ranks (see https://yaledailynews.com/blog/2020/10/27/swensen-tells-money-managers-to-increase-diversity-if-they-want-to-work-with-yale/).

4. The proxy voting provides an interesting setting to study the effect of gender differences on managerial decisions as we can link the gender composition of the fund management team to repeated and observable decisions (i.e., the votes). By contrast, in studies analyzing gender diversity in the boardroom, the decisions taken by the board are more difficult to observe and are generally inferred from corporate outcomes (e.g., performance, RD spending, ES policies).

havior of mutual funds. The U.S. mutual fund industry, which collectively owns about a quarter of the U.S. equity market, is a dominant player in the proxy voting process. Prior empirical work shows that shareholder votes matter: the passage of close call shareholder proposals raises firm value (e.g., Cuñat, Gine, and Guadalupe 2012; Flammer 2015) and reduced management support in director elections is associated with lower compensation and a greater likelihood of governance changes (e.g., Cai, Garner, and Walkling 2009). Beyond governance-related considerations, the voting process has also become an important channel through which mutual funds can signal their concerns and express their views on Environmental and Social (ES) issues (e.g., He, Kahraman, and Lowry 2021; Di Giuli et al. 2022).

In our empirical analysis, we focus on the voting behavior of funds that we refer to as women-led mutual funds (i.e., mutual funds for which at least 50% of the management team is composed of women). Following a common approach in the literature examining gender differences across fund managers (e.g., Adams and Kim 2020; Niessen-Ruenzi and Ruenzi 2019) or financial analysts (e.g., Kumar 2010; Jannati et al. 2020), we identify fund managers' gender based on their first names. In our sample, about 9% (10%) of fund votes on shareholder proposals (management proposals) are made by women-led mutual funds.

To analyze the voting behavior of women-led mutual funds, we rely on large samples of mutual fund votes for shareholder proposals (1,156,784 votes) and management proposals (17,926,942 votes) related to 8,225 unique U.S. companies over the period 2003 – 2018. Our empirical analyses rely on a stringent setting that includes proposal and fund fixed effects. The proposal fixed effects capture what is specific to each proposal for a given firm in a given annual meeting and therefore control away for both any time-varying firm characteristics (e.g., size, profitability, ownership structure, corporate governance) and any proposal characteristics (e.g., whether the proposal has a positive ISS recommendation). For a given proposal, we therefore examine whether women-led mutual funds vote more (less) favorably than other funds. The fund fixed effects capture any persistent characteristics at

the fund level that may influence their voting behavior. Hence, our identification rests on instances where, for a given fund, women representation reaches at least 50% in the fund management team.

First, we examine whether women-led mutual funds are more likely to support ES proposals. This analysis is motivated by former evidence suggesting that women exhibit stronger social preferences (e.g., Beutel and Marini 1995; Adams and Funk 2012; Cronqvist and Yu 2017; Ginglinger and Gentet-Raskopf 2021) and are more aware of climate change and its consequences (e.g., Davidson and Haan 2012; McCright 2010). It is also motivated by prior studies documenting gender differences in risk aversion (see Croson and Gneezy (2009) for a survey of this evidence) and that shareholder votes in environmental and social (ES) proposals are informative about firms' ES risks (He et al. 2021). We find that women-led mutual funds are significantly more likely to support ES proposals. This result cannot be attributed to a greater tendency of women-led mutual funds to support shareholder proposals in general as we observe no effect for governance-related shareholder proposals. The support for ES proposals by women-led mutual funds is economically important. Women-led mutual funds are more likely to support ES proposals by 17% (relative to the unconditional support for ES proposals).

Next, to assess the relevance of the risk-aversion explanation by differentiating ES proposals depending on whether they explicitly deal with ES risks. We find that women-led mutual funds are even more supportive of ES proposals that are explicitly related to risk, consistent with female fund managers being more risk-averse and paying more attention to ES risks. However, we also find that women-led mutual funds are significantly more likely to support ES proposals even when they are not related to risk, consistent with gender differences in preferences and awareness regarding social and environmental issues.

We also dig deeper inside the universe of ES proposals and we examine the voting support of women-led mutual funds for E and S proposals separately. Consistent with the notion that women are not only more aware of climate change and its consequences but also more willing

to act on it (Altunbas et al. 2022), we find that women-led mutual funds are significantly more likely to support E proposals. By contrast, the effect on the voting support for S proposals is statistically weaker.

Due to their pro-social and environmental preferences, women fund managers may be more likely to work for environmentally and socially responsible funds. Since ES funds are also more likely to support ES shareholder proposals (e.g., Dikolli et al. 2021), this could explain our results. Using two classifications of ES funds based either on their names or Morningstar globe ratings, we find that ES funds are indeed more likely to be women-led funds. However, we show that our results hold when we exclude ES funds, indicating that the stronger support for ES proposals by women-led mutual funds is not a byproduct of the stronger support of ES funds in general.

As a second step in our analysis, we examine whether the voting behavior of women-led mutual funds exhibits in-group favoritism. Research in social psychology indicates that people systematically adopt favorable views about in-group members and are indifferent or have lower opinion about out-group members (e.g., Tajfel 1982; Hewstone, Rubin, Willis, et al. 2002). In a recent study, Jannati et al. (2020) show that equity analysts are subject to in-group favoritism. Specifically, using gender to identify groups, they find that compared with female analysts, male analysts have lower earnings forecasts and worse stock recommendations for firms headed by female CEOs than for firms headed by male CEOs.[5] In the context of our study, in-group favoritism would take the form of a greater tendency for women-led (male-led) mutual funds to be supportive of management in firms headed by female (male) CEOs than in firms headed by male (female) CEOs. Consistent with in-group favoritism, we find that women-led mutual funds are significantly more likely to vote with management when the firm is managed by a female CEO. By construction, our tests capture the support to female CEOs by women-led mutual funds compared to other funds. From this

---

5. Francis et al. (2015) also provide some evidence of in-group bias among analysts as female analysts receive fewer interruptions from male executives compared to male executives and male analysts are more likely to interrupt female executives in conference calls.

perspective, our results could be explained both by male-led mutual funds "undersupporting" female CEOs or by women-led mutual funds "oversupporting" female CEOs. In both cases, the results indicate that female representation in mutual fund management teams affects the assessment of female CEOs.

Third, we focus on director elections and examine whether women-led mutual funds are more supportive of female candidates. Using a broad sample of director elections, Gow, Larcker, and Watts (2020) provide empirical evidence that shareholders value diversity, especially gender diversity, but also show that there is considerable heterogeneity in voting behavior across shareholders. We find that women-led mutual funds are indeed significantly more likely to support female candidates during board elections, especially when there is a shortage of female candidates or when the fraction of female members in the boardroom is low. The greater support to female candidates by women-led mutual funds could be due to women supporting diversity in the board or could be another manifestation of in-group bias. However, the cross-sectional results based on the shortage of female candidates or the fraction of gender diversity in the boardroom suggest that this support is to some extent motivated by the willingness to promote gender diversity and female representation.

Finally, we examine whether women-led mutual funds are more likely to follow ISS recommendations than other funds. On the one hand, prior research shows that female directors allocate more effort to monitoring (Adams and Ferreira 2009). Due to their superior monitoring abilities, female fund managers may rely both on independent research and ISS recommendations, increasing the likelihood of deviating from ISS recommendations. On the other hand, due to risk-aversion and career concerns, women-led mutual funds may be more likely to follow ISS recommendations as a way not to be blamed for their voting decisions. Across our different samples of shareholder and management proposals, we find no evidence that women-led mutual funds are more likely to follow ISS recommendations.

Our findings are relevant to several strands of the literature. First, our paper adds to the literature on the implications of team gender diversity in asset management. Prior studies

examine the effect of gender diversity on the performance of mutual funds (Niessen-Ruenzi and Ruenzi 2019), venture capital funds (Calder-Wang and Gompers 2021), and hedge funds (Lu, Naik, and Teo 2021). In a related paper, Rau and Wang (2021) document gender differences in the sensitivity of mutual fund flows to fund performance. To the best of our knowledge, we are the first to explore the implications of female representation for the voting behavior of mutual funds. Because of the different aspects proxy voting encompasses (i.e., governance proposals, ES proposals, board elections), it offers a rich context to study how the diversity in mutual funds' teams may manifest itself.[6]

Second, our results relate to the literature on corporate gender diversity. Recent studies document several determinants of board gender diversity such as public attention to gender equality (Giannetti and Wang 2021) or campaigns launched by "the Big-Three" institutional investors (Gormley et al. 2021). Our results indicate that increasing female representation in mutual funds' team is likely to have spillover effects for board gender diversity since women-led mutual funds are significantly more likely than other funds to support women in board elections. Related studies focus on the effect of board gender diversity on corporate outcomes including performance (e.g., Ahern and Dittmar 2012; Eckbo, Nygaard, and Thorburn 2019; Hwang, Shivdasani, and Simintzi 2018), corporate innovation (Griffin, Li, and Xu 2021), and IPO price formation (Rau, Sandvik, and Vermaelen 2022). Closer to our study, recent papers show that female CEOs are more likely to be targeted by hedge fund activism and shareholder proposals (e.g., Francis et al. 2021; Chen, Lin, and Low 2022). Our results add to these papers by showing that female representation in mutual fund management team increases support to female CEOs.

Third, our paper adds to the literature on the determinants of mutual fund votes both in governance (e.g., Calluzzo and Kedia 2019; Cvijanović, Dasgupta, and Zachariadis 2016;

---

6. Beyond the lack of female representation, the financial sector has also faced criticism for unequal gender practices. These disparities, and in particular the gender pay gap are beyond the scope of our paper as we are interested in the implications of female representation in teams of asset managers. In a recent paper, Lagaras et al. (2022) examine the determinants and evolution of the gender pay gap in the financial sector as compared to the rest of the economy.

Heath et al. 2022; Iliev and Lowry 2015) and ES proposals (e.g., Di Giuli et al. 2022; He et al. 2021; Michaely, Ordonez-Calafi, and Rubio 2021). We contribute to this literature by highlighting that female representation in mutual funds affects different aspects of their voting behavior. In particular, our results indicate that women-led mutual funds are significantly more likely to support environmental proposals. Increasing female representation in mutual funds may therefore have implications for the aggregate support for ES proposals, which remains relatively low. Our paper also adds to recent studies focusing on support for women in board elections (e.g., Gertsberg, Mollerstrom, and Pagel 2021; Gow et al. 2020).

2 Data and Measures

2.1 Main data sources and sample construction

Analyzing the voting behavior of women-led mutual funds requires data on mutual fund proxy voting as well as on the composition of mutual fund management teams. We describe the data sets used in the empirical analysis in this section.

We obtain mutual fund proxy voting records over the period 2003 to 2018 from Risk Metrics' ISS Voting Analytics. This database contains votes cast by mutual funds on all proposals for Russell 3000 companies. For every vote cast, the database provides a description of the proposal being voted on, the sponsor of the proposal (management or shareholder), the voting recommendation of the firm's management and that of ISS, and the fund's vote. We consider the following fund votes: "For", "Against", "Abstain" ("Do Not Vote"), and "Withhold", for conciseness, we aggregate "Against", "Abstain", and "Withhold" together (Iliev and Lowry 2015). We restrict the sample to fund votes for which we are able to identify the gender of all the fund managers (i.e., 94% of fund votes for shareholder proposals and 92.5% of votes for management proposals).[7] We obtain the full names of mutual fund's

---

7. For shareholder proposals, initially 1,477,040 fund votes, and 1,386,705 fund votes after the restriction. For management proposals, initially 26,140,611 fund votes and 24,154,388 fund votes after the restriction

managers from Morningstar direct mutual fund database.[8] We further drop fund observations for which we cannot compute our main control variables which include fund size, expense ratio, the number of fund managers, and the average manager tenure and experience. These restrictions result in a sample of 1,156,784 fund votes on shareholder proposals (8,299 unique proposals for 1,271 unique firms voted by 4,010 unique funds) and 17,926,942 fund votes on management proposals (406,768 unique proposals for 8,225 unique firms voted by 4,695 unique funds).

In some analyses, we further differentiate proposals according to their types. Among shareholder proposals, we differentiate between proposals related to governance issues and proposals related to environmental and social issues. Following common approach in the literature (e.g., He et al. 2021; Di Giuli et al. 2022), we identify proposal types based on category codes (*AgendaItemID*) provided by ISS Voting Analytics and we further read through the description (*ItemDesc*) to refine the list of ES proposals and to differentiate between E and S proposals. In this way, we identify among the 8,299 shareholder proposals, 1,640 (about 20%) that are related to ES issues. Within ES proposals, we identify 704 (43%) proposals related to environmental issues, 919 proposals (56%) related to social issues, and 17 (1%) ambiguous proposals that are related to both environmental and social issues.[9] Detailed information on shareholder proposal classifications and the complete list of E and S related proposals are reported in Appendix A. Among management proposals, we identify the subset of proposals related to direction elections. Management proposals related to director elections are the ones with the following ISS types "M0201 - Elect Director", "M0214 - Elect Directors (Bundled)", "M0225 - Elect Directors (Opposition Slate) " and "M0299 - Elect Director (Management)"). Among the 406,768 management proposals, we identify 291,887 proposals (about 72%) that pertain to direction elections.

---

8. We first match ISS data to CRSP mutual fund database data following a common approach in the literature (e.g., Iliev and Lowry 2015; Matvos and Ostrovsky 2010), and then match via fund tickers to Morningstar database.

9. These 17 ambiguous proposals all correspond to the category "Establish Environmental/Social Issue Board Committee". We include them when we consider ES proposals as a whole but exclude them when we focus on the subsets of E and S proposals.

2.2 Identifying women-led mutual funds

We identify fund managers' genders based on their first names that we obtain from Morningstar. Relying on first names to infer the gender is a common approach in the literature examining gender differences across fund managers (e.g., Adams and Kim 2020; Niessen-Ruenzi and Ruenzi 2019) and financial analysts (e.g., Kumar 2010; Jannati et al. 2020).[10]

We start by matching fund managers' first names with a list of the most popular first names by gender for the last ten decades published by the U.S. Social Security administration.[11] We complement this first approach by matching remaining managers' first names to the first name information provided by Namepedia[12], the world's largest information platform and community about personal names. Data is collected about names of all languages and cultures, in all scripts, with a focus on the Latin alphabet.[13] For each first name, Namepedia gives the percentage of feminine and masculine occurrences across countries (for instance the first name Alexandra is feminine at 98%). When the percentage of feminine (masculine) occurrences is greater than 50%, we assign the gender female (male) to the first name.[14] There are few names that we cannot identify as male or female.[15] We find a match for 1,385 unique first names (i.e., 92% of the fund managers).

We classify a mutual fund as a women-led mutual fund if at least 50% of the fund managers are women. This approach differs from Niessen-Ruenzi and Ruenzi (2019), who concentrate on single-managed funds and exclude team-managed funds. We do not exclude team-managed funds because the fraction of team-managed funds has sharply increased

---

10. Empirical studies on female CEO or female directors usually follow a different approach and infer the gender thanks to bibliographies provided by databases such as BoardEx.

11. Source : https://www.ssa.gov/oact/babynames/decades/index.html

12. Source : http://www.namepedia.org/

13. The names coded in Morningstar are in Latin alphabet.

14. For the large majority of the first names, the percentage of occurrences for feminine or masculine is above 90%.

15. There are 125 first names for which we cannot find a match using our approach because of typos in the names, mistakes (e.g., reporting "Management" or the surname of the manager), a lack of matching, the name being 50% feminine or 50% masculine, the gender information being missing on Namepedia, or the first name being shorter than three characters (a restriction imposed by Namepedia). Relative to the other names, these names have a much lower occurrence in management teams.

over the past decade.[16] For example, Evans et al. (2022) report that in their sample the number of funds managed by teams grows from 800 during the period 1992-2000 to 3,115 during the period 2010-2016. Likewise, we observe that most mutual funds in our sample are managed by a team of managers. Appendix B reports descriptive statistics on the number of fund votes on shareholder proposals (the distribution is similar for management proposals) made by mutual funds classified by team size. Only 26.7% of votes in our sample of shareholder proposals are made by funds with a single manager compared to 28.9% by funds with two managers, 18% by funds with three managers, 9% by funds with four managers, 6.8% by funds with five managers, and the remainder by funds with six managers or more. Concentrating on single-managed funds and excluding team-managed funds would therefore provide a very incomplete view of the effect of managers' gender on mutual fund voting behavior.

One empirical choice that we make is to use a threshold of 50% of women to classify funds as women-led funds. This way of classifying women-led mutual funds has two important merits: i) it ensures that women are equally or more numerous than men in the team and therefore that they exert significant influence over the fund voting decisions, and ii) it exhibits sufficient within-fund variation to allow for the inclusion of fund fixed effects and strengthen the identification by capturing instances when women become equal or dominant in number in a given fund team. An alternative choice would be to classify as women-led mutual funds, funds for which all managers are women. However, the descriptive statistics reported in Appendix B show that there are almost no mutual funds with 100% of the management team being composed of women (only 0.25% of funds with two managers, 0.07% of funds with three managers, and none for funds with four managers or more). Requiring that the management team is composed only of women would de facto exclude almost all team-managed funds, which represents the large majority of our sample. Moreover, it would make it impossible to control for fund fixed effects in our regressions. Within-fund variation with

---

16. Niessen-Ruenzi and Ruenzi (2019) covers the time period from 1992 to 2009.

a cut-off of 100% of women is about 1%. By contrast, with a 50% cut-off, within-fund variation is 6%. Using a 50% cutoff while controlling for fund fixed effects allows us to capture instances where for a given fund, women become equal or more dominant than men in number among the fund management team.

An alternative empirical choice would be to rely on the presence of at least one woman within the fund management team. A first concern with this measure is that it may be subject to some forms of green-washing. Moreover, it would force us to make strong assumptions regarding the ability of a single woman to yield significant power over the fund voting decisions. For example, using the threshold of at least one woman, the majority of funds with 5 managers or more would be classified as women-led mutual funds. A last alternative empirical choice would be to use the fraction of women in the fund team. However, focusing on the continuous percentage of women would not allow us to accurately capture whether women are indeed able to exert greater power on the fund voting decisions. For example, a within-fund increase from 10% to 20% in the fraction of women in the management team is unlikely to significantly change the balance of power and the voting behavior of the fund.

2.3 Summary statistics

Table 1 reports the descriptive statistics for the main variables used throughout the empirical analysis. We report descriptive statistics separately for the sample of shareholder proposals, which consists of 1,156,784 mutual fund votes, and for the samples of management proposals, which consists of 17,926,942 mutual votes (14,216,753 fund votes on director elections and 3,710,189 fund votes on management proposals not related to director elections). Among shareholder proposals, 75% of votes are made for proposals related to governance issues and 25% of votes are for proposals related to ES issues (10% for environmental proposals and about 15% of social proposals).

Consistent with previous literature (e.g., Cai et al. 2009; Calluzzo and Kedia 2019; Iliev and Lowry 2015), mutual fund voting support differs markedly between shareholder and

management proposals: More than 93% of votes (94.3% for director elections and 93.3% for other management proposals) are in favor of management proposals compared to 36% for shareholder proposals. For shareholder (management) proposals, 9% (10%) of the votes are made by women-led mutual funds.

Descriptive statistics for the control variables are also similar in the three samples. The average mutual fund in our samples has close to $2 billion of assets under management. The expense ratio is about 0.85% for the samples of fund votes on management proposals and 0.95% for the sample of fund votes on shareholder proposals. The size of the management team is close to 3 managers across the three samples. The average fund manager tenure is about 5 years (63 months) and the average fund manager tenure is slightly lower than 10 years (114 months).

2.4 Empirical setting

In our empirical analysis, we examine different aspects of the voting behavior of women-led mutual funds such as their support for ES proposals, whether they are less (more) likely to oppose (support) female CEOs, or whether they tend to promote gender diversity in the boardroom by being more supportive of female candidates in director elections. In this section, we present the generic models that we use throughout our different tests. Specifically, in our empirical analysis, we estimate the following regressions:

$$Vote\ For_{ijpt} = \beta_0 + \beta_1 Women\ Led\ Mutual\ Fund_{it} + \Gamma_1 Fund\ Controls_{it} + P_{ipt} + F_i \quad (1)$$

$$Vote\ For_{ijpt} = \beta_0 + \beta_1 Women\ Led\ Mutual\ Fund_{it} + \beta_2 Women\ Led\ Mutual\ Fund_{it} \\ \times X_{ijpt} + \Gamma_1 Fund\ Controls_{it} + P_{ipt} + F_i \quad (2)$$

where, the subscripts i, j, p, and t, refer to funds, firms, proposals, and months, respectively. The dependent variable in the estimation is *Vote For*, a dummy variable that is equal to one when the fund votes in favor of the proposal, and zero otherwise. *Women Led Mutual Fund* is a dummy variable equal to one if the mutual fund is managed by at least 50% of

women. X is a proposal characteristic (e.g., whether the proposal is related to ES issues) or a firm characteristic (e.g., whether the firm has a female CEO). We generally use Equation (1) (respectively Equation (2)) to examine the support of women-led mutual funds in absolute (respectively relative) terms for certain types of proposals. For example, with Equation (1), we can estimate whether women-led mutual funds are more likely to support ES proposals in absolute terms whereas with Equation (2), we can estimate whether women-led mutual funds are more likely to support ES proposals compared to governance proposals.

Fund Controls is a set of control variables including fund size (measured as the natural logarithm of total net assets under management), the fund net expense ratio (measured as total annual expenses and fees divided by total net assets), team size (measured as the natural logarithm of one plus the number of fund managers), fund managers' tenure (computed as the natural logarithm of the average number of months since the team managers started to work for the mutual fund), fund managers' experience (computed as the natural logarithm of the average number of months since the team managers first appeared in the Morningstar database).[17]

We control for unobserved heterogeneity by including a rich set of fixed effects. First, we include proposal fixed effects, which capture each proposal voted on at the shareholder meeting of a given firm in a given annual meeting. This is the strongest control for how the nature and timing of the proposal impacts mutual fund voting. In particular, proposal fixed effects subsume Firm $\times$ Year fixed effects and absorb the effect of any time-varying firm-level characteristics, such as profitability, size, or governance. Moreover, the proposal fixed effects also capture proposal characteristics, including whether the proposal is related to environmental issues, or whether the proposal has a positive ISS recommendation. Second, we include Fund fixed effects to capture fund-level fixed characteristics that may influence mutual fund voting behavior, such as fund ideology (Bolton et al. 2020) or ES orientation

---

17. We cannot obtain from Morningstar the age of the fund managers. The fund manager's experience is a proxy of the latter, because, everything else being equal, younger managers should have less experience in the mutual fund industry on average.

(Dikolli et al. 2021).

We estimate a linear probability model using OLS, as this allows us to include saturated fixed effects. The linear probability model also helps with the interpretation of interaction terms in our estimation (see Ai and Norton (2003) and Greene (2010)). In line with Iliev and Lowry (2015), we cluster the standard errors at the fund level.

3 Empirical Results

3.1 Women-led mutual funds and voting support for ES shareholder proposals

We start our empirical analysis by examining the voting behavior of women-led mutual funds on ES issues. Women generally exhibit stronger social preferences compared to men (e.g., Beutel and Marini 1995; Adams and Funk 2012; Cronqvist and Yu 2017) and are also more aware of climate change and its consequences than men (e.g., Davidson and Haan 2012; McCright 2010). Women are also general more risk averse (e.g., Croson and Gneezy 2009) and may therefore pay more attention to risks related to ES issues. Support for proposals related to environmental and social issues is therefore one important aspect of mutual fund voting where female representation in the fund team is likely to express itself. Consistent with prior studies (e.g., He et al. 2021), we conduct this analysis for the sample of shareholder proposals because there are almost no management proposals related to environmental and social issues.

Table 2, Column 1, reports the regression results of estimating Equation (1) for the sample of ES proposals. The coefficient on *Women-Led Mutual Fund* is positive and statistically significant at the 1%, indicating that mutual funds managed by at least 50% of women are significantly more likely to vote in favor of shareholder proposals related to ES issues. Support for environmental and social proposals by women-led mutual funds is economically important. As the unconditional support for ES proposals is 17.67%, the 3.01 coefficient

estimate seen in Column 2 represents a 17% (3.01/17.67) increase in the likelihood of the fund supporting ES proposals. Column 2 reports the regression results of estimating Equation (1) for the sample of governance proposals. The coefficient on Women-Led Mutual Fund is close to zero and not statistically significant, indicating mutual funds managed by at least 50% of women are not more likely to vote in favor of shareholder proposals related to governance issues. Therefore, the greater support for ES proposals observed in Column 1 cannot be explained by a tendency of women-led mutual funds to be more supportive of shareholder proposals in general.

In Column 3, we pool ES and governance proposals and include an interaction term between *Women-Led Mutual Fund* and *ES Proposal* (i.e., a dummy variable that takes the value of one if the proposal is related to ES issues and zero otherwise) following Equation (2). The results show that the coefficient on the interaction term is positive and statistically significant at the 1% level, indicating that women-led mutual funds are significantly more likely to support ES proposals than other funds. As the unconditional support for ES proposals is 17.67%, the 4.477 coefficient estimate seen in Column 3 represents a 25% (4.477/17.67) increase in the likelihood of the fund supporting ES proposals compared to governance proposals. The coefficient on *Women-Led Mutual Fund*, which in this context measures the voting behavior of women-led mutual funds for governance proposals, is not statistically significant. The results from Column 3 therefore confirm that women-led mutual funds are significantly more likely to support ES proposals (but not governance proposals) than other funds.

Consistent with prior evidence (e.g., Dikolli et al. 2021; He et al. 2021), we find that larger funds are less likely to support for ES and governance shareholder proposals. Funds with greater expense ratios are less likely to support ES proposals. Since a fund's expense ratio has an effect on its incentive to monitor (Lewellen and Lewellen 2022), this indicates that funds more engaged in monitoring are less likely to support ES proposals.

As mentioned earlier, the stronger support for ES proposals by women-led mutual funds

could be explained by gender differences in preferences and awareness regarding social and environmental issues as well as in risk aversion. In Table 3, we assess the relevance of these two explanations by identifying ES proposals that are explicitly related to risk. Specifically, we split ES proposals depending on whether the word "risk" appears in the description of the proposal.[18] We pool ES proposals related to risk and governance proposals (Column 1) and ES proposals not related to risk and governance proposals (Column 2). The results show that the coefficient on the interaction term between *Women-Led Mutual Fund* and *ES Proposal.* Consistent with women-led mutual funds being more risk averse and paying more attention to ES risks, we find that support for ES proposals by women-led mutual funds is stronger when proposals are explicitly related to risk. However, the results from Column 2 indicate that women-led mutual funds are more likely to support ES proposals even when they are not related to risk, suggesting that gender differences in preferences and awareness regarding social and environmental issues also matter.

Next, we dig deeper in the universe of ES proposals to understand which subset of ES proposals women-led mutual funds are more likely to support and we study the voting support for environmental and social proposals separately. In Table 4, we pool environmental and governance proposals (Column 1) and social and governance proposals (Column 2) and include interaction terms between *Women-Led Mutual Fund* and *E Proposal* (i.e., a dummy variable that takes the value of one if the proposal is related to environmental issues) or *S Proposal* (i.e., a dummy variable that takes the value of one if the proposal is related to social issues) following Equation (2). The results in Column 1 show that the coefficient on the interaction between *Women-Led Mutual Fund* and *E Proposal* is positive and statistically significant at the 1% level. By contrast, in Column 2, the coefficient on the interaction between *Women-Led Mutual Fund* and *S Proposal* is not statistically significant. These results indicate that the voting behavior of women-led mutual funds is not uniform across all ES proposals, i.e., women-led mutual funds exhibit a much stronger support for

18. For example, "Report on Financial Risks of Climate Change".

proposals related to environmental proposals whereas they are not more likely to support social proposals than other funds. These results are consistent with the notion that women are not only more aware of climate change and its consequences but also more willing to act on it (Altunbas et al. 2022). They are also consistent with environmental and climate risks being more salient that social risks.

Due to their pro-social and environmental preferences, women fund managers may be more likely to work for environmentally and socially responsible funds.[19] At the same time, ES funds are more likely than non-ES funds to support ES shareholder proposals (e.g., Dikolli et al. 2021). In Table 5, we therefore run our main tests excluding ES funds to make sure that the stronger support for ES proposals by women-led mutual funds is not mechanically picking up the stronger support of ES funds. We identify ES funds in two different ways. First, following He et al. (2021) and Michaely et al. (2021), we classify a fund in our sample as an ES fund if its name contains a string that identifies it as an environmentally and socially responsible fund.[20] In this way, we identify 90 unique ES funds corresponding to 23,026 fund votes. Second, we identify ES funds based on their Morningstar globe rating. The globe rating is a sustainability rating where mutual funds are ranked on a percentile basis and given a globe rating based on their holdings. The number of globes ranges from one globe (low sustainability) to five globes (high sustainability). While the globe rating is a salient measure of fund sustainability and has been used in prior studies (e.g., Hartzmark and Sussman 2019; Gantchev, Giannetti, and Li 2021), it is available from Morningstar from August 2018 onward only. Hence, a limitation of relying on globe ratings is that we classify funds as ES or non-ES funds depending on their globe ratings at the end of our sample period.

We start by checking whether the fraction of women-led mutual funds is higher among ES

---

19. Studying the political views of mutual fund managers, Hong and Kostovetsky (2012) find that democrat fund managers, which have pro-social preferences, are more likely to run SRI funds.

20. Based on these two papers, we use the following list of strings: "responsib", "social", "sustainab", "green", "ESG", "SRI", "ave Maria", "avemaria", "women", "low carbon", "clean", "catholic", "fossil", "ethic", "conscious", "climate", "ecolog", "environm", "water", "pax", "alternative energy", "wind energy", "solar", "community", and "epiphany".

funds than non-ES funds. First, we find that among ES funds (identified by name), 15.94% of fund votes are made by women-led mutual funds compared to 9.31% among non-ES funds. This suggests that ES funds are more likely to be women-led than other funds. Likewise, if we focus on globe ratings, we find that funds with a greater number of globes are more likely to be women-led, however the difference is less striking. For example, among funds with four or five globes, 11.0 % of fund votes are made by women-led mutual funds compared to 7.7% among funds with one globe.

Table 5, Column 1 reports the results of our baseline specification estimated excluding ES funds (identified by their name). The coefficient on the interaction between *Women-Led Mutual Fund* and *ES Proposal* is positive and statistically significant at the 1% level, indicating that the stronger support for ES proposals by women-led mutual funds is not mechanically picking up the stronger support of ES funds. We find similar results if we use a classification of ES and non-ES funds based on the globe ratings. In Column 2, we exclude funds with a globe rating equal to 4 or 5. In Column 3, we exclude funds with a globe rating equal to 5. In both columns, the results show that the coefficient on the interaction between *Women-Led Mutual Fund* and *ES Proposal* is positive and statistically significant at the 1% level, confirming that the stronger support for ES proposals by women-led mutual funds is not driven by ES funds. Overall, the results from Table 5 ensure that the stronger support for ES proposals by women-led mutual funds cannot be explained away by women fund managers being more likely to run ES funds.

3.2   Women-led mutual funds and in-group favoritism in voting

In this section, we study the voting behavior of women-led mutual funds for firms headed by female CEOs. This analysis is motivated by the existence of in-group favoritism (i.e., the fact that people systematically adopt favorable views about in-group members and are indifferent or have lower opinion about out-group members). For example, Jannati et al. (2020) show that financial analysts exhibit in-group favoritism. Compared to female analysts, male

analysts have lower earnings forecasts and worse stock recommendations for firms headed by female CEOs than for firms headed by male CEOs. Likewise, Francis et al. (2015) show that female analysts receive fewer interruptions from female executives compared to male executives and that male analysts are more likely to interrupt female executives. Given the particular context of our study, in-group favoritism would take the form of a stronger support by women-led mutual funds for firms headed by female CEOs than for firms headed by male CEOs. We explore this issue using both the sample of management proposals and the sample of shareholder proposals. Firm management almost always opposes shareholder proposals and recommends voting against shareholder proposals. In our sample, 99% of votes for shareholder proposals have a negative management recommendation. From this perspective, stronger support by women-led mutual funds for firms headed by female CEOs could either take the form of i) stronger support for management proposals for firms headed by female CEOs and ii) lower support for shareholder proposals for firms headed by female CEOs.

Table 6, Panel A reports the results of estimating Equation (2) with an interaction term between Women-Led Mutual Fund and Female CEO (i.e., a dummy variable that takes the value of one if the firm is headed by a female CEO). We identify firms headed by female CEOs based on the gender flag in ExecuComp.[21] In the sample of shareholder (management) proposals, 5% (4%) of mutual fund votes are made for companies headed by a female CEO. Column 1 reports the results for shareholder proposals and Column 2 for management proposals (excluding proposals on director elections).[22] The results from the two columns both suggest that women-led mutual funds are more likely to vote with management when firms are headed by female CEOs. Specifically, for shareholder proposals (Column 1), the coefficient on the interaction between *Women-Led Mutual Fund* and *Female CEO* is negative and statistically significant at the 1% level, indicating that women-led mutual funds are less

21. The coverage of ExecuComp is limited SP1500 firms. As a result, for this analysis, we lose 115,323 fund votes for non-S&P1500 firms.
22. The voting behavior of women-led mutual funds in director elections is the subject of the next section.

likely to support shareholder proposals (i.e., to vote against management) when the firm is headed by a female CEO. For management proposals (Column 2), the coefficient on the interaction between Women-Led Mutual Fund and Female CEO is positive and statistically significant at the 10% level, suggesting that women-led mutual funds are more likely to vote for management when the firm is headed by a female CEO.

Female CEOs may differ from male CEOs across other dimensions such as age or experience. In our sample, we find that female CEOs are indeed younger and have less experience than their male counterparts. To alleviate the concern that male and female CEOs differ across other dimensions than gender, every year, we match firms headed by female CEOs with firms headed by male CEOs that are in the same quartile of the distribution in terms of CEO age and tenure. In Table 6, Panel B, we use this matched sample and re-estimate the regressions from Panel A. The results confirm that women-led mutual funds are more likely to vote with management (i.e., to vote against shareholder proposals and in favor of management proposals) when firms are headed by a female CEO.

3.3   Women-led mutual funds and voting support for female candidates in board elections

In this section, we study the voting behavior of women-led mutual funds in director elections. The lack of gender diversity in the board room is an increasingly important issue in corporate governance. Prior studies show that public attention to gender equality (Giannetti and Wang 2021) and campaigns launched by "the Big-Three" institutional investors (Gormley et al. 2021) play an important role in increasing gender diversity in the boardroom. More closely related to our study, Gow et al. (2020) use shareholder votes in director elections to gain insights into shareholder views on diversity. They find that mutual fund support for diverse directors, especially female directors, is higher than for other candidates, indicating that shareholders value gender diversity among directors. Importantly, they document substantial heterogeneity across shareholders regarding the support for diverse candidates. Women-led

mutual funds may be more likely than other funds to recognize board gender diversity as a primary concern and to support female directors in board elections.

Table 7 reports the results of estimating Equation (2) with an interaction term between *Women-Led Mutual Fund* and *Female Director* (i.e., a dummy variable that takes the value of one if the director is a female) for the sample of proposals related to director elections and nominations.[23] We retrieve the first name of directors from the description of the proposals and determine their gender following the same methodology we used for fund managers (see section 2.2). In our sample, 17% of mutual fund votes in director elections are for female directors. The results show that the coefficient on the interaction between *Women-Led Mutual Fund* and *Female Director* is positive and statistically significant at the 1%, indicating that women-led mutual funds are significantly more likely to support female candidates in director elections. Support in director elections is generally very high and exhibit relatively low variation compared to other proposals. Therefore, while the 0.459 coefficient estimate in Column 1 represents a modest increase in the likelihood of the fund supporting female candidates, it is sizeable given the low variation in voting support in director elections. These results indicate that women-led mutual funds play a role in encouraging gender diversity in the boardroom.

If women-led mutual funds are more likely than other funds to recognize board gender diversity as a primary concern, we expect their support for female candidates in director elections to be even stronger when there is a shortage of female candidates or low gender diversity in the board of directors. The results from Columns 2 and 3 show that the stronger support of women-led mutual funds for female candidates mainly exists when there is only one female candidate. Overall, the results indicate that women-led mutual funds are even more likely to support female candidates when there is a shortage of female candidates in a given year or when female candidates were already elected. In Columns 4 and 5, we

---

23. Proposals related to director elections/nominations correspond to the proposals with the following ISS item id: "M0201: Elect director", "M0214: Elect Directors (Bundled)", "M0225: Elect Directors (Opposition Slate)" and "M0299: Elect Director (Management)").

complement this analysis by considering female representation in the board of directors before the election. The results show that the stronger support of women-led mutual funds for female candidates mainly exists in firms with low female representation in the boardroom.

Overall, the results from this section suggest that women-led mutual funds encourage gender diversity in the boardroom by being more supportive of female candidates in board elections, especially so when there is a shortage of female candidates or when gender diversity in the boardroom is low. Hence, increasing female representation in mutual funds' team, which is the stated objective of numerous asset managers, is likely to have spillover effects for promoting board gender diversity in the portfolio firms.

3.4 Women-led mutual funds and ISS recommendations

In this section, we examine whether women-led mutual funds are more likely to follow ISS recommendations than other funds. As documented by Iliev and Lowry (2015) and Malenko and Shen (2016), many funds indiscriminately follow ISS recommendations while others are more likely to independently assess issues up for vote. Theoretically, it is not clear whether women-led mutual funds rely more on ISS recommendations than other funds.

On the one hand, prior research suggests that female directors allocate more effort to monitoring (Adams and Ferreira 2009). Likewise, in line with the argument developed by Kumar (2010) for female analysts, it could be that only female fund managers with superior monitoring abilities enter the profession due to a perception of discrimination in the fund manager labor market. An investor seeking to monitor a given firm will rely on both independent research and ISS recommendations. From this perspective, women-led mutual funds may be more likely to vote in an informed way and to have a higher likelihood of deviating from ISS recommendations.

On the other hand, prior research also suggests that women tend to be more risk averse and have greater career concerns than men, especially so in the fund industry (e.g., Adams and Kim 2020; Carter, Franco, and Gine 2017; Charness and Gneezy 2012). Greater risk

23

aversion may take the form of a greater likelihood of following ISS recommendations so that women-led mutual funds could not be blamed for their voting decisions. We examine whether women-led mutual funds are more likely to follow ISS recommendations by estimating the following regression:

$$Follow\ ISS_{ijpt} = \beta_0 + \beta_1 Women\ Led\ Mutual\ Fund_{it} + \Gamma_1 Fund\ Controls_{it} + P_{ipt} + F_i \quad (3)$$

Where *Follow ISS* is a dummy variable that is equal to one if the fund votes following ISS recommendation, and zero otherwise. Other variables are the same as in previous regressions.

Table 8 presents the results of estimating Equation (3) on different subset of proposals. In Column 1, we include all shareholder proposals. The coefficient on *Women Led Mutual Fund* is positive but not statistically significant at conventional levels, indicating that women-led mutual funds are not more likely to follow ISS recommendations than other funds. In Columns 2, 3, and 4, we focus on ES shareholder proposals, management proposals (except director elections), and director elections, respectively. We continue to find that women-led mutual funds do not rely on ISS recommendations to a larger extent than other funds for their voting decisions.

4   Conclusion

There is a growing emphasis on female representation in the finance industry and, in particular, in investment management. While several initiatives seek to tackle the underrepresentation of women, little is known about the implications of female representation in asset management team. In this paper, we document that female representation in mutual fund teams affect several aspects of their proxy voting behavior. All the results are robust to a stringent set of fixed effects, making it unlikely that they are due to omitted factors.

First, we find that women-led mutual funds are significantly more likely to support ES proposals. Their voting support is more pronounced when these proposals explicitly relate to ES risks, consistent with gender differences in risk aversion. Digging deeper into the

universe of ES proposals, we find that women-led mutual funds support more environmental proposals, consistent with the stronger awareness of women for climate change issues.

Second, we document that women-led mutual funds are more likely to support female CEOs: They are more likely to vote in favor of management proposals and against shareholder proposals when the CEO is a female. These results are consistent with the existence of an in-group bias and suggest that female representation in mutual fund teams affects their assessment of female CEOs.

Third, we show that women-led mutual funds are more likely to support female candidates in director elections, especially when there is a shortage of female candidates and when the fraction of female members in the boardroom is low. This result is consistent with women-led mutual funds being concerned with gender diversity issues and seeking to increase female representation in the boards of their portfolio firms. In particular, increasing female representation in mutual funds' team is likely to have spillover effects for board gender diversity.

Overall, our results indicate that gender differences in fund management teams influence several key aspects of their voting behavior.

References

Adams, R. B., and M. S. Kim. 2020. "Gender Discrimination as a Consequence of Team Failure." *Available at SSRN 3215521.*

Adams, R. B., and D. Ferreira. 2009. "Women in the boardroom and their impact on governance and performance." *Journal of Financial Economics* 94 (2): 291–309.

Adams, R. B., and P. Funk. 2012. "Beyond the glass ceiling: Does gender matter?" *Management Science* 58 (2): 219–235.

Ahern, K. R., and A. K. Dittmar. 2012. "The changing of the boards: The impact on firm valuation of mandated female board representation." *Quarterly Journal of Economics* 127 (1): 137–197.

Ai, C., and E. C. Norton. 2003. "Interaction terms in logit and probit models." *Economics Letters* 80 (1): 123–129.

Altunbas, Y., L. Gambacorta, A. Reghezza, and G. Velliscig. 2022. "Does gender diversity in the workplace mitigate climate change?" *Available at SSRN 4046329.*

Beutel, A. M., and M. M. Marini. 1995. "Gender and values." *American Sociological Review,* 436–448.

Bolton, P., T. Li, E. Ravina, and H. Rosenthal. 2020. "Investor ideology." *Journal of Financial Economics* 137 (2): 320–352.

Cai, J., J. L. Garner, and R. A. Walkling. 2009. "Electing directors." *Journal of Finance* 64 (5): 2389–2421.

Calder-Wang, S., and P. A. Gompers. 2021. "And the children shall lead: Gender diversity and performance in venture capital." *Journal of Financial Economics* 142 (1): 1–22.

Calluzzo, P., and S. Kedia. 2019. "Mutual fund board connections and proxy voting." *Journal of Financial Economics* 134 (3): 669–688.

Carter, M. E., F. Franco, and M. Gine. 2017. "Executive gender pay gaps: The roles of female risk aversion and board representation." *Contemporary Accounting Research* 34 (2): 1232–1264.

Charness, G., and U. Gneezy. 2012. "Strong evidence for gender differences in risk taking." *Journal of Economic Behavior & Organization* 83 (1): 50–58.

Chen, Y.-R., C.-H. Lin, and A. Low. 2022. "Gender Differences in Shareholder Activism: Evidence from Shareholder Proposals." *Available at SSRN 4024614.*

Cronqvist, H., and F. Yu. 2017. "Shaped by their daughters: Executives, female socialization, and corporate social responsibility." *Journal of Financial Economics* 126 (3): 543–562.

Croson, R., and U. Gneezy. 2009. "Gender differences in preferences." *Journal of Economic literature* 47 (2): 448–74.

Cuñat, V., M. Gine, and M. Guadalupe. 2012. "The vote is cast: The effect of corporate governance on shareholder value." *Journal of Finance* 67 (5): 1943–1977.

Cvijanović, D., A. Dasgupta, and K. E. Zachariadis. 2016. "Ties that bind: How business connections affect mutual fund activism." *Journal of Finance* 71 (6): 2933–2966.

Davidson, D. J., and M. Haan. 2012. "Gender, political ideology, and climate change beliefs in an extractive industry community." *Population and Environment* 34 (2): 217–234.

Di Giuli, A., A. Garel, R. Michaely, and A. Petit-Romec. 2022. "Climate Change and Mutual Fund Voting on Environmental Proposals." *Available at SSRN 3997730.*

Dikolli, S. S., M. M. Frank, M. Z. Guo, and L. J. Lynch. 2021. "Walk the Talk: ESG Mutual Fund Voting on Shareholder Proposals." *Available at SSRN 3849762.*

Eckbo, B. E., K. Nygaard, and K. S. Thorburn. 2019. "Board gender-balancing and firm value." *Unpublished working paper. Tuck School of Business at Dartmouth.*

Evans, R. B., M. P. Prado, A. E. Rizzo, and R. Zambrana. 2022. "Identity, Diversity, and Team Performance: Evidence from US Mutual Funds." *Available at SSRN 3505619.*

Flammer, C. 2015. "Does corporate social responsibility lead to superior financial performance? A regression discontinuity approach." *Management Science* 61 (11): 2549–2568.

Francis, B., I. Hasan, J. C. Park, and Q. Wu. 2015. "Gender differences in financial reporting decision making: Evidence from accounting conservatism." *Contemporary Accounting Research* 32 (3): 1285–1318.

Francis, B. B., I. Hasan, Y. V. Shen, and Q. Wu. 2021. "Do activist hedge funds target female CEOs? The role of CEO gender in hedge fund activism." *Journal of Financial Economics* 141 (1): 372–393.

Gantchev, N., M. Giannetti, and R. Li. 2021. "Sustainability or performance? Ratings and fund managers' incentives." *Swedish House of Finance Research Paper,* no. 21.

Gertsberg, M., J. Mollerstrom, and M. Pagel. 2021. "Gender Quotas and Support for Women in Board Elections." *NBER Working Paper.*

Giannetti, M., and T. Y. Wang. 2021. "Public attention to gender equality and board gender diversity." *Journal of Financial and Quantitative Analysis,* 1–43.

Ginglinger, E., and C. Gentet-Raskopf. 2021. "Women Directors and E&S Performance: Evidence from Board Gender Quotas." *European Corporate Governance Institute–Finance Working Paper,* no. 760.

Gormley, T. A., V. K. Gupta, D. A. Matsa, S. Mortal, and L. Yang. 2021. "The big three and board gender diversity: The effectiveness of shareholder voice." *European Corporate Governance Institute–Finance Working Paper* 714:2020.

Gow, I. D., D. F. Larcker, and E. M. Watts. 2020. "Board diversity and shareholder voting." *Rock Center for Corporate Governance at Stanford University Working Paper,* no. 245.

Greene, W. 2010. "Testing hypotheses about interaction terms in nonlinear models." *Economics Letters* 107 (2): 291–296.

Griffin, D., K. Li, and T. Xu. 2021. "Board gender diversity and corporate innovation: International evidence." *Journal of Financial and Quantitative Analysis* 56 (1): 123–154.

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

He, Y., B. Kahraman, and M. Lowry. 2021. "ES risks and shareholder voice." *European Corporate Governance Institute–Finance Working Paper,* no. 786.

Heath, D., D. Macciocchi, R. Michaely, and M. C. Ringgenberg. 2022. "Do index funds monitor?" *Review of Financial Studies* 35 (1): 91–131.

Hewstone, M., M. Rubin, H. Willis, et al. 2002. "Intergroup bias." *Annual Review of Psychology* 53 (1): 575–604.

Hong, H., and L. Kostovetsky. 2012. "Red and blue investing: Values and finance." *Journal of Financial Economics* 103 (1): 1–19.

Hwang, S., A. Shivdasani, and E. Simintzi. 2018. "Mandating women on boards: Evidence from the United States." *Kenan Institute of Private Enterprise Research Paper,* nos. 18-34.

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

Jannati, S., A. Kumar, A. Niessen-Ruenzi, and J. Wolfers. 2020. "In-group bias in financial markets." *Available at SSRN 2884218.*

Kim, D., and L. T. Starks. 2016. "Gender diversity on corporate boards: Do women contribute unique skills?" *American Economic Review* 106 (5): 267–71.

Kumar, A. 2010. "Self-selection and the forecasting abilities of female equity analysts." *Journal of Accounting Research* 48 (2): 393–435.

Lagaras, S., M.-T. Marchica, E. Simintzi, and M. Tsoutsoura. 2022. "Women in the Financial Sector." *Available at SSRN 4098229.*

Lewellen, J., and K. Lewellen. 2022. "Institutional investors and corporate governance: The incentive to be engaged." *Journal of Finance* 77 (1): 213–264.

Lu, Y., N. Y. Naik, and M. Teo. 2021. "Diverse Hedge Funds." *Available at SSRN 3779713.*

Malenko, N., and Y. Shen. 2016. "The role of proxy advisory firms: Evidence from a regression-discontinuity design." *Review of Financial Studies* 29 (12): 3394–3427.

Matsa, D. A., and A. R. Miller. 2013. "A female style in corporate leadership? Evidence from quotas." *American Economic Journal: Applied Economics* 5 (3): 136–69.

Matvos, G., and M. Ostrovsky. 2010. "Heterogeneity and peer effects in mutual fund proxy voting." *Journal of Financial Economics* 98 (1): 90–112.

McCright, A. M. 2010. "The effects of gender on climate change knowledge and concern in the American public." *Population and Environment* 32 (1): 66–87.

Michaely, R., G. Ordonez-Calafi, and S. Rubio. 2021. "ES votes that matter." *European Corporate Governance Institute–Finance Working Paper.*

Niessen-Ruenzi, A., and S. Ruenzi. 2019. "Sex matters: Gender bias in the mutual fund industry." *Management Science* 65 (7): 3001–3025.

Rau, P. R., J. Sandvik, and T. Vermaelen. 2022. "Valuing Soft Information: IPO Price Formation and Board Gender Diversity." *Available at SSRN 3731006.*

Rau, P. R., and J. Wang. 2021. "Do Investors Pay Less Attention to Women (Fund Managers)?" *Available at SSRN 3926970.*

Tajfel, H. 1982. "Experimental studies of intergroup behaviour." In *Cognitive Analysis of Social Behavior,* 227–246. Springer.

Table 1. Summary Statistics

This table reports summary statistics for our main variables in the samples we use in our analysis.

Variables	#Obs.	Mean	S.D.	Min	0.25	Mdn	0.75	Max
Shareholder Proposals								
Vote For (%)	1,156,784	36.40	48.12	0.00	0.00	0.00	100.00	100.00
Governance Proposal	1,156,784	0.75	0.43	0.00	1.00	1.00	1.00	1.00
ES Proposal	1,156,784	0.25	0.43	0.00	0.00	0.00	0.00	1.00
Environmental Proposal	1,156,784	0.10	0.30	0.00	0.00	0.00	0.00	1.00
Social Proposal	1,156,784	0.14	0.35	0.00	0.00	0.00	0.00	1.00
Women-Led Mutual Fund	1,156,784	0.09	0.29	0.00	0.00	0.00	0.00	1.00
Team Size	1,156,784	3.04	2.63	1.00	1.00	2.00	4.00	34.00
Fund TNA (million $)	1,156,784	1,800	4,900	0.00	19	180	970	33,000
Fund Expense Ratio	1,156,784	0.94	0.64	0.04	0.45	0.85	1.25	2.74
Avg. Fund Manager Tenure	1,156,784	64.31	51.27	1.00	27.00	50.00	89.00	496.50
Avg. Fund Manager Experience	1,156,784	115.85	58.41	0.00	73.00	111.60	150.25	503.00
Management Proposals –								
Without Director Elections								
Vote For (%)	3,710,189	93.32	24.98	0.00	100.00	100.00	100.00	100.00
Women-Led Mutual Fund	3,710,189	0.10	0.30	0.00	0.00	0.00	0.00	1.00
Team Size	3,710,189	2.94	2.56	1.00	1.00	2.00	3.00	34.00
Fund TNA (million $)	3,710,189	1,900	4,600	0.05	24	220	1,200	31,000
Fund Expense Ratio	3,710,189	0.85	0.66	0.02	0.31	0.74	1.20	2.76
Avg. Fund Manager Tenure	3,710,189	63.16	50.97	1.00	26.00	48.33	87.50	496.50
Avg. Fund Manager Experience	3,710,189	116.43	58.74	0.00	71.50	112.00	153.00	500.00
Management Proposals –								
Director Elections								
Vote For (%)	14,216,753	94.27	23.24	0.00	100.00	100.00	100.00	100.00
Women-Led Mutual Fund	14,216,753	0.10	0.30	0.00	0.00	0.00	0.00	1.00
Team Size	14,216,753	2.93	2.54	1.00	1.00	2.00	3.00	34.00
Fund TNA (million $)	14,216,753	2,000	4,800	0.00	26	240	1,300	33,000
Fund Expense Ratio	14,216,753	0.84	0.65	0.02	0.30	0.73	1.19	2.74
Avg. Fund Manager Tenure	14,216,753	63.06	50.84	1.00	26.00	48.00	87.50	496.50
Avg. Fund Manager Experience	14,216,753	114.53	58.43	0.00	69.00	110.00	151.00	503.00

Table 2. Women-Led Mutual Funds and Voting Support for ES Proposals

This table reports OLS estimates in a sample that includes mutual fund votes on governance and ES proposals for Russell 3000 firms over the period from 2006 to 2018. Columns 1 and 2 report the results for ES proposals and governance proposals, respectively. In Column 3, we pool ES and governance proposals together. The dependent variable, *Vote For*, is a dummy variable that is equal to one if the fund votes in favor of the shareholder proposal. *Women − Led Mutual Fund* is a dummy variable that is equal to one if at least 50% of the fund management team is composed of women. *ES Proposal* is a dummy variable that is equal to one if the proposal is related to ES issues. *Ln(Team Size)* is the natural logarithm of one plus the number of fund managers. *Ln(Fund TNA)* is the natural logarithm of total net assets under management). *Fund Expense Ratio* is the total annual expenses and fees divided by total net assets. *Ln(Avg. Manager Tenure)* is the natural logarithm of the average number of months since the team managers started to work for the mutual fund. *Ln(Avg. Manager Experience)* is the natural logarithm of the average number of months since the team managers first appeared in the Morningstar database. Appendix A provides the list of shareholder proposals that we classify as E or S. Standard errors are robust to heteroskedasticity, clustered by fund, and reported below in parentheses. ***, **, and * refer to significance at the 1%, 5%, and 10% levels, respectively.

	(1) ES Proposals	(2) Governance Proposals	(3) ES vs Governance Proposals
Women-Led Mutual Fund	3.012***	-0.949	-1.307
	(1.023)	(1.029)	(1.086)
ES Proposal × Women-Led Mutual Fund			4.477***
			(1.513)
Ln (Team Size)	-3.691***	-0.541	-1.287
	(0.793)	(0.864)	(0.792)
Ln (Fund TNA)	-0.530***	-0.629***	-0.596***
	(0.190)	(0.229)	(0.199)
Fund Expense Ratio	-3.138**	-2.312	-2.749
	(1.587)	(2.168)	(1.817)
Ln (Avg. Manager Tenure)	-0.415	-1.268***	-1.123***
	(0.313)	(0.368)	(0.306)
Ln (Avg. Manager Experience)	1.656***	1.572**	1.645***
	(0.461)	(0.627)	(0.514)
Observations	285,722	870,701	1,156,784
Proposal Fixed Effects	Yes	Yes	Yes
Fund Fixed Effects	Yes	Yes	Yes
Adjusted R-squared	0.497	0.531	0.529

Table 3. Women-Led Mutual Funds and Voting Support for ES Proposals Related to Risk

This table reports OLS estimates in a sample that includes mutual fund votes on governance and ES proposals for Russell 3000 firms over the period from 2006 to 2018. In Column 1, we pool ES proposals related to risk and governance proposals. In Column 2, we pool ES proposals not related to risk and governance proposals. In both columns, the dependent variable, $Vote\ For$, is a dummy variable that is equal to one if the fund votes in favor of the shareholder proposal. $Women-Led\ Mutual\ Fund$ is a dummy variable that is equal to one if at least 50% of the fund management team is composed of women. $ES\ Proposal$ is a dummy variable that is equal to one if the proposal is related to environmental issues. Appendix A provides the list of shareholder proposals that we classify as E or S. Constants are not reported. Standard errors are robust to heteroscedasticity, clustered by fund, and reported below in parentheses. ***, **, and * refer to significance at the 1%, 5%, and 10% levels, respectively.

Vote For (%)	(1) ES related to risk versus Governance	(2) ES not related to risk versus Governance
Women-Led Mutual Fund	-0.939	-1.328
	(1.040)	(1.069)
ES Proposal × Women-Led Mutual Fund	7.265***	4.135***
	(2.055)	(1.506)
Observations	895,104	1,132,378
Controls as in Table 2	Yes	Yes
Proposal Fixed Effects	Yes	Yes
Fund Fixed Effects	Yes	Yes
Adjusted R-squared	0.531	0.529

Table 4. Women-Led Mutual Funds and Voting Support for E and S Proposals

This table reports OLS estimates in a sample that includes mutual fund votes on governance and ES proposals for Russell 3000 firms over the period from 2006 to 2018. The dependent variable, *Vote For*, is a dummy variable that is equal to one if the fund votes in favor of the shareholder proposal. *Women−Led Mutual Fund* is a dummy variable that is equal to one if at least 50% of the fund management team is composed of women. *E Proposal* is a dummy variable that is equal to one if the proposal is related to environmental issues. *S Proposal* is a dummy variable that is equal to one if the proposal is related to social issues. Appendix A provides the list of shareholder proposals that we classify as E or S. Constants are not reported. Standard errors are robust to heteroskedasticity, clustered by fund, and reported below in parentheses. ***, **, and * refer to significance at the 1%, 5%, and 10% levels, respectively.

Vote For (%)	(1) E vs. G	(2) S vs. G
Women-Led Mutual Fund	-1.563	-0.886
	(1.068)	(1.002))
E Proposal × Women-Led Mutual Fund	9.698***	
	(1.799)	
S Proposal × Women-Led Mutual Fund		0.838
		(1.516)
Observations	993,292	1,038,462
Controls as in Table 2	Yes	Yes
Proposal Fixed Effects	Yes	Yes
Fund Fixed Effects	Yes	Yes
Adjusted R-squared	0.528	0.533

Table 5. Women-Led Mutual Funds and Voting Support for ES Proposals: Excluding ES funds

This table reports OLS estimates in a sample that includes mutual fund votes on governance and ES proposals for Russell 3000 firms over the period from 2006 to 2018. We report the results separately for ES and non-ES funds. The way we define ES and non-ES funds is indicated at the top of each column. The dependent variable, $Vote\ For$, is a dummy variable that is equal to one if the fund votes in favor of the shareholder proposal. $Women-Led\ Mutual\ Fund$ is a dummy variable that is equal to one if at least 50% of the fund management team is composed of women. $ES\ Proposal$ is a dummy variable that is equal to one if the proposal is related to ES issues. Appendix A provides the list of shareholder proposals that we classify as E or S. Constants are not reported. Standard errors are robust to heteroskedasticity, clustered by fund, and reported below in parentheses. ***, **, and * refer to significance at the 1%, 5%, and 10% levels, respectively.

Vote For (%)	(1) Excluding ES funds (by name)	(2) Excluding 4-5 Globe rating funds	(3) Excluding 5 Globe rating funds
Women-Led Mutual Fund	-1.143	-1.744	-1.014
	(1.106)	(1.261)	(1.102)
ES Proposal × Women-Led Mutual Fund	3.891**	5.168***	4.273***
	(1.546)	(1.878)	(1.572)
Observations	1,133,758	912,814	1,098,939
Controls as in Table 2	Yes	Yes	Yes
Proposal Fixed Effects	Yes	Yes	Yes
Fund Fixed Effects	Yes	Yes	Yes
Adjusted R-squared	0.526	0.531	0.529

Table 6. Women-Led Mutual Funds and Voting Support for Female CEOs

This table reports OLS estimates in a sample that includes mutual fund votes on shareholder and management proposals for Russell 3000 firms over the period from 2006 to 2018. Panel A presents the results for the full sample and Panel B presents the results for a subsample of female CEOs and matched male CEOs with similar age and tenure (in the same quartile of the distribution in terms of CEO age and tenure). The dependent variable, $Vote\ For$, is a dummy variable that is equal to one if the fund votes in favor of the shareholder proposal. $Women-Led\ Mutual\ Fund$ is a dummy variable that is equal to one if at least 50% of the fund management team is composed of women. $Female\ CEO$ is a dummy variable equal to one if the proposal is targeted at a firm headed by a female CEO. Constants are not reported. Standard errors are robust to heteroskedasticity, clustered by fund, and reported below in parentheses. ***, **, and * refer to significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Baseline results

Vote For (%)	(1) Shareholder Proposals	(2) Management Proposals
Women-Led Mutual Fund	-0.083	-0.358**
	(0.993)	(0.170)
Female CEO × Women-Led Mutual Fund	-1.788**	0.292*
	(0.896)	(0.176)
Ln (Team Size)	-1.399*	-0.043
	(0.797)	(0.064)
Ln (Fund TNA)	-0.592***	-2.015***
	(0.201)	(0.769)
Fund Expense Ratio	-2.581	-0.165
	(1.816)	(0.102)
Ln (Avg. Manager Tenure)	-1.078***	0.009
	(0.308)	(0.152)
Ln (Avg. Manager Experience)	1.588***	-0.358**
	(0.528)	(0.170)
Observations	1,061,227	3,710,189
Proposal Fixed Effects	Yes	Yes
Fund Fixed Effects	Yes	Yes
Adjusted R-squared	0.525	0.466

Panel B. Matched sample

Vote For (%)	(1) Shareholder Proposals	(2) Management Proposals
Women-Led Mutual Fund	4.063***	-0.816***
	(1.104)	(0.305)
Female CEO × Women-Led Mutual Fund	-3.228***	0.500**
	(1.112)	(0.230)
Observations	90,348	292,668
Controls as in Table 2	Yes	Yes
Proposal Fixed Effects	Yes	Yes
Fund Fixed Effects	Yes	Yes
Adjusted R-squared	0.534	0.491

Table 7. Women-Led Mutual Funds and Voting Support for Female Directors

This table reports OLS estimates in a sample that includes mutual fund votes on director elections for Russell 3000 firms over the period from 2006 to 2018. Column 1 presents the results for the full sample of director elections. In Columns 2 and 3, we split the sample based on whether the number of female candidates is lower or higher than one. In Columns 4 and 5, we split the sample based on whether gender diversity in the boardroom before the director elections is low (i.e., below the median) or high (i.e., above the median). The dependent variable, *Vote For*, is a dummy variable that is equal to one if the fund votes in favor of the proposal. *Women − Led Mutual Fund* is a dummy variable that is equal to one if at least 50% of the fund management team is composed of women. *Female Director* is a dummy variable equal to one if the director is a female. Constants are not reported. Standard errors are robust to heteroskedasticity, clustered by fund, and reported below in parentheses. ***, **, and * refer to significance at the 1%, 5%, and 10% levels, respectively.

Vote For (%)	(1) Full sample	(2) Low number of female candidates	(3) High number of female candidates	(4) Low gender diversity in the boardroom	(5) High gender diversity in the boardroom
Women-Led Mutual Fund	-0.001	-0.364	0.440**	0.279	0.373
	(0.258)	(0.335)	(0.211)	(0.225)	(0.229)
Female Director × Women-Led Mutual Fund	0.459***	0.507***	-0.034	0.320***	0.085*
	(0.147)	(0.184)	(0.047)	(0.121)	(0.048)
Observations	14,216,753	7,357,605	6,859,141	4,748,497	4,332,851
Controls as in Table 2	Yes	Yes	Yes	Yes	Yes
Proposal Fixed Effects	Yes	Yes	Yes	Yes	Yes
Fund Fixed Effects	Yes	Yes	Yes	Yes	Yes
Adjusted R-squared	0.427	0.452	0.369	0.390	0.366

Table 8. Women-Led Mutual Funds and ISS recommendations

This table reports OLS estimates in a sample that includes mutual fund votes on director elections for Russell 3000 firms over the period from 2006 to 2018. In all Columns, the dependent variable, *Follow ISS*, is a dummy variable that is equal to one if the fund votes following ISS recommendation, and zero otherwise. *Women − Led Mutual Fund* is a dummy variable that is equal to one if at least 50% of the fund management team is composed of women. We estimate the regressions for different subsets of proposals, which are indicated at the top of each column. Constants are not reported. Standard errors are robust to heteroskedasticity, clustered by fund, and reported below in parentheses. ***, **, and * refer to significance at the 1%, 5%, and 10% levels, respectively.

Follow ISS reco	(1) All shareholder proposals proposals	(2) ES shareholder proposals proposals	(3) All management proposals but director elections	(4) Management proposals related to director elections
Women-Led Mutual Fund	0.007	0.019	0.000	-0.002
	(0.010)	(0.012)	(0.002)	(0.002)
Ln (Team Size)	-0.005	-0.008	-0.004**	0.000
	(0.009)	(0.013)	(0.002)	(0.003)
Ln (Fund TNA)	-0.006***	-0.007**	-0.001**	-0.001**
	(0.002)	(0.003)	(0.001)	(0.001)
Fund Expense Ratio	-0.020	-0.038	-0.015*	-0.021**
	(0.020)	(0.024)	(0.008)	(0.008)
Ln (Avg. Manager Tenure)	-0.015***	-0.016**	-0.002	-0.001
	(0.004)	(0.007)	(0.001)	(0.001)
Ln (Avg. Manager Experience)	0.025***	0.035***	0.004**	0.004**
	(0.006)	(0.009)	(0.002)	(0.002)
Observations	1,156,784	285,722	3,710,189	14,216,753
Proposal Fixed Effects	Yes	Yes	Yes	Yes
Fund Fixed Effects	Yes	Yes	Yes	Yes
Adjusted R-squared	0.471	0.537	0.371	0.380

Appendix A1. Environmental and Social Shareholder Proposals

Panel A. Environmental Proposals

ISS Category Code	Nb. Unique Proposals
Climate Change Action	2
Community- Environmental Impact	87
Energy Efficiency	6
Environmental - Related Miscellaneous	13
Establish Environmental/Social Issue Board Committee	4
Establish Other Governance Board Committee	7
GHG Emissions	143
Hydraulic Fracturing	15
Link Executive Pay to Social Criteria	26
Nuclear Power - Related	16
Nuclear Safety	1
Recycling	35
Renewable Energy	40
Report on Climate Change	110
Report on Environmental Policies	23
Report on Sustainability	153
Require Environmental/Social Issue Qualifications for Director Nominees	12
Toxic Emissions	3
Wood Procurement	8

<center>Panel B. Social Proposals</center>

ISS Category Code	Nb. Unique Proposals
Adopt Sexual Orientation Anti-bias Policy	90
Animal Slaughter Methods	20
Animal Testing	23
Animal Welfare	47
Anti-Social Proposal	71
Charitable Contributions	24
China Principles	4
Data Security, Privacy, and Internet Issues	24
Establish Environmental/Social Issue Board Committee	6
Establish Other Governance Board Committee	2
Facility Safety	13
Fair Lending	12
Gender Pay Gap	18
Genetically Modified Organisms (GMO)	34
Health Care - Related	36
Human Rights Risk Assessment	18
Human Rights-Related [country]	1
Improve Human Rights Standards or Policies	150
Labor Issues - Discrimination and Miscellaneous	13
Link Executive Pay to Social Criteria	9
MacBride Principles	20
Operations in High-Risk Countries	19
Product Safety	26
Reduce Tobacco Harm to Health	7
Report on EEO	41
Report on Sustainability	1
Require Director Nominee Qualifications	8
Require Environmental/Social Issue Qualifications for Director Nominees	1
Review Foreign Military Sales	18
Review Tobacco Marketing	15
Sever Links with Tobacco Industry	1
Social Proposal	117
Tobacco - Related - Miscellaneous	8
Weapons - Related	16
Workplace Code of Conduct (For Reporting Purposes Only)	6

<center>Panel C. Environmental Social Proposals</center>

ISS Category Code	Nb. Unique Proposals
Establish Environmental/Social Issue Board Committee	17

Appendix A2. Distribution of Fund Votes and Female Representation by Management Team Size

Panel A. Distribution of fund votes by management team size

This table reports the number of votes, the percentage of votes, and cumulated percentage of votes for funds with different management team size.

Number of Managers	Freq.	Pct.	Cum.
1	309,000	26.71	26.71
2	334,078	28.88	55.59
3	208,353	18.01	73.60
4	104,036	8.99	82.60
5	79,040	6.83	89.43
6	35,636	3.08	92.51
7	21,459	1.86	94.37
8	12,631	1.09	95.46
9	12,644	1.09	96.55
10	6,975	0.60	97.15
Greater than 10	32,932	3.00	100.00

Panel B. Female representation by management team size

This table reports the average female representation, the fraction of funds with 100% of female managers, 50% of female managers, and at least one female managers for funds with different management team size.

Number of Managers	Pct. female managers	100% female managers	At least 50% female managers	At least one female manager
1	5.71%	5.71%	5.71%	5.71%
2	12.19%	0.25%	24.13%	24.13%
3	10.72%	0.07%	2.31%	29.78%
4	9.63%	0.00%	4.73%	33.72%
5	11.66%	0.00%	0.75%	48.40%
6	9.55%	0.00%	1.56%	42.83%
7	11.64%	0.00%	0.00%	57.31%
8	12.28%	0.00%	0.83%	65.18%
9	8.45%	0.00%	0.00%	51.73%
10	10.93%	0.00%	0.00%	67.04%