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ORIGINAL RESEARCH

Socially responsible investment funds and firm performance improvement

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Abstract
We examine how socially responsible investment (SRI) mutual funds emphasizing employee relations are associated with the performance of their portfolio firms, measured by return on assets (ROA). We highlight the important role of mutual-fund shareholders emphasizing employee relations by showing that firms' ROA improves when their shares are owned by such shareholders. We find the shareholder participation of employee-focused SRI funds a potential channel leading to firm performance improvement. Our finding holds for stock return performance and is stronger in human-capital intense industries. Instrumental variable approaches using state-level constituency statutes, mutual fund inflows, or Morningstar ratings suggest a causal relation.

Keywords Socially responsible investment · Corporate social responsibility · Employee relations · Employee motivation · Firm performance

JEL Classification G30 · J24 · J28 · M14

1 Introduction

There is an ever-growing interest in socially responsible investment (SRI) in the global investment industry, with assets under management reaching USD 35.3 trillion.[1] According to the Global Sustainable Investment Review (2020), SRI funds have grown in most regions, notably in Canada (48% growth) and the United States (42% growth) since 2018. SRI funds have captured the attention of not only investors but also academics alike. A majority of the literature focuses on the performance of SRI funds (e.g., Renneboog et al.

[1] Global Sustainable Investment Review, 2020. www.gsi-alliance.org/wp-content/uploads/2021/08/GSIR-20201.pdf

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2008a, 2008b; Cortez et al. 2009; Revelli and Viviani 2015; Durán-Santomil et al. 2019; Fatemi et al. 2024; Hornuf and Yüksel 2024). Particularly, Geczy et al. (2021) investigate investor preferences for SRI funds and Ceccarelli et al. (2024) reveal that mutual funds classified as "low carbon" enjoy a substantial increase in their monthly flows while Renneboog et al. (2011), Joliet and Titova (2018) and Edmans et al. (2022) study how SRI funds divest or invest in firms and construct their portfolios. The other group of studies examines SRI funds' involvement in firm policies. Edmans (2009) and Edmans and Manso (2010) show that SRI funds can influence firm behavior through the threat of divestment. Krueger et al. (2020) discuss SRI funds' engagement in firm policies regarding climate risk, while Berk and van Binsbergen (2021) investigate the impact of SRI funds on a firm's cost of capital and investment decisions. However, prior studies have underexplored the aspect that SRI funds vary in their focus areas within a wide array of CSR when making their investment strategies. As these funds may exert divergent influences on the firms they invest in, aligning with their specific CSR priorities, it is important to address this gap in the literature.

In this paper, we aim to fill the void by examining the impact of SRI funds on firm financial performance. Specifically, we classify SRIs based on their focus on corporate labor relations and further investigate whether employee-focused SRI funds contribute to improving their constituent firms' financial performance. To explain this relationship, we also explore potential channels through which these SRIs lead to better firm performance. Our motivation to study particularly employee-focused SRI funds and their relation to firm performance stems not only from the growing emphasis on this subject but also from the unique and distinct nature of labor relations within the CSR framework. Compared to other areas of CSR such as, environment, society, and governance, investments in labor relations fostered by employee-focused SRIs may have a more direct impact on firm value and overall financial performance. Better corporate governance is often a "default" expectation by investors for all firms, and thus does not necessarily confer a competitive advantage. Also, prior studies show that investments in society or the environment can be seen as "cash outflow" or "money spent outside the firm". For instance, Bird et al. (2007) show that community- and environment-related CSR practices are often viewed as merely philanthropic activities, leading to lower firm financial performance. Similarly, Hillman and Keim (2001) find that social issue participation by firms is rather negatively associated with firm value. In contrast, the theoretical benefits of good employee relations are more straightforward. Allocating funds to improve employee relations can be perceived as "cash spent in the firm, for the firm" by shareholders. Edmans (2011, 2012, 2023) shows that improved relations with employees boost their motivation, which is linked to higher firm value, such as increased return on assets and stock returns.

According to the neo-institutional theory (King et. al, 2005), companies undertake either internally or externally focused actions to meet institutional pressures. Hawn and Ioannou (2016), drawing on the stakeholder theory, argue that internal actions are associated with internal stakeholders (e.g., employees and managers) and reflect inward-looking practices, such as the adoption of appropriate organizational structures and strategies. External actions, on the other hand, relate to external stakeholders (e.g., society, government, and environment) and reflect public, highly visible initiatives aimed at gaining organizational endorsement from those external stakeholders. In the context of CSR, the focus of our paper, internal actions focus on corporate policies to improve employee relations, whereas external actions involve commitments to the environment and society, such as setting environmental targets and aiding communities in need. Hawn and Ioannou (2016) also show that firms, on average, undertake more internal than external CSR actions

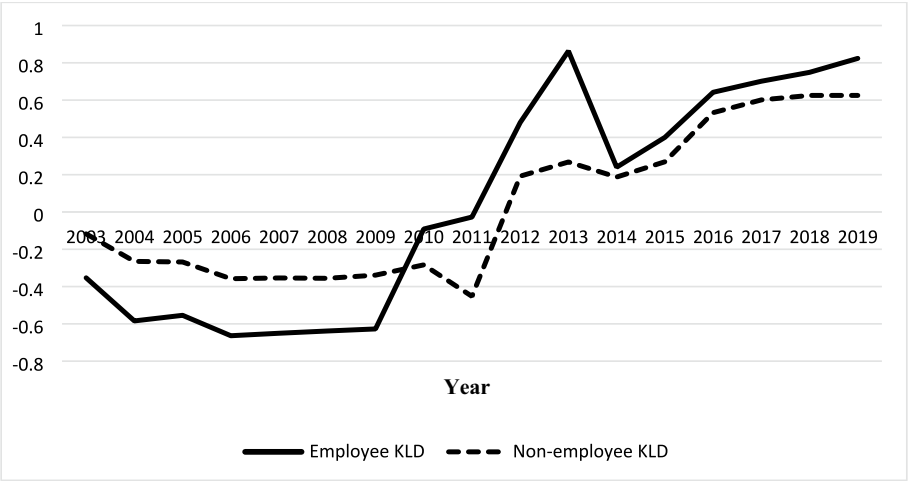

Fig. 1 Firm CSR Scores in Employee Relations and Other Areas This figure displays firm CSR activities over time for employee relations and other CSR areas using KLD scores for our sample period from 2003 to 2019. Employee KLD score is the number of KLD Strengths (max 12) minus the number of KLD Concerns (max 7) in Employee Relations and Human Rights areas. Non-employee KLD score is calculated as the average of Environment, Society, and Governance KLD scores, which are the number of KLD Strengths minus the number of KLD Concerns in the environment, society, and governance areas, respectively.

to meet institutional expectations and gain legitimacy. In general, such legitimacy should lead to higher firm performance and value (King et. al, 2005). In our paper, we expand on this theory by examining whether ownership of employee-focused SRI mutual funds results in better financial performance in their constituent firms. Specifically, we explore how institutional pressures lead to improved employee relations and motivation through the firm's responsive internal actions.

Compared to other areas of corporate social responsibility (CSR), firms' and investors' emphasis on employee relation CSR is rapidly growing based on the belief that stronger relations with a company's own employees can beget improvements in employee efficiency and thus real performance.[2] Based on our sample and Kinder, Lydenberg, and Domini (KLD) scores, Fig. 1 shows indeed a rapid improvement in CSR activities for employee relations compared to other CSR areas, i.e. society, environment, and government, since the Great Financial Crisis.

The literature on employer-employee relations suggests "employee motivation and satisfaction" as the *mechanism* for the positive link between investments in employee relations and firm performance. Akerlof (1982) views employee CSR as a "gift" from the firm to its employees and the employees respond to the gift with increased efforts. Shapiro and Stiglitz (1984) show that firms that pay wages higher than the market wage can encourage their employees not to shirk but to increase efforts. Parket and Eilbirt (1975), Cochran and Wood (1984), and McGuire et al. (1988) find a positive relationship between high CSR

[2] *Global Human Capital Trends* (Deloitte, 2015) also notes that more HR and business leaders are focusing on employee engagement, with 50% indicating that the initiative is "very important." The report explains: "As demand for talent picks up, the balance of power in business is rapidly shifting from the employer to the employee. Moreover, workers are becoming more mobile, contingent, and autonomous, and as a result, harder to manage and engage." Available at https://www2.deloitte.com/ content/dam/Deloitte/at/Documents/human-capital/hc-trends-2015.pdf.

performance, including employee and minority hiring decisions, and accounting performance. Renneboog et al. (2008b) suggest that CSR may lead to higher firm value, signal product quality, improve reputation, and help to attract motivated employees. Flammer (2015) finds that the adoption of close-call CSR proposals leads to positive announcement returns and superior accounting performance, suggesting increased labor productivity as *a potential channel*. Albuquerque et al. (2019) model CSR activities as an investment in customer loyalty and find that CSR practices increase firm value. Edmans (2011, 2012) shows that good relations with employees improve their motivation and contributions, and thereby boost firm value. Edmans et al. (2023) also show that firms globally listed as the best companies to work for show higher returns on assets and earnings surprises as well as higher stock returns. Glossner (2019) shows that long-term blockholders ensure that managers engage in efficient CSR strategies through effective monitoring, ultimately enhancing shareholder value.

Given possible implications of firm performance improvement, we further study *the channel or the explanation* for possibly better firm performance when SRI funds with an employee focus have higher ownership in those companies. What could be the influence of such institutional investors on firms regarding this relation? Do they play a role in this equation? To the best of our knowledge, these questions remain unanswered as of today. We suggest in this paper that external mechanisms, such as institutional monitoring, are needed to ensure that employee-related CSR becomes an abiding corporate culture or policy. An external monitoring mechanism promotes and secures the implementation of such employee-related CSR policies in the firm which then improves employees' trust in the firm's employee-focused corporate culture and leads to higher loyalty and employee satisfaction. A corporate agenda that promises to improve labor relations alone is not enough to convince employees of its continuance and functionality and to yield performance improvement until such CSR practices are made a firm's regular and essential practice. Tosun (2017) shows, for example, that SRI mutual funds with a focus on a specific CSR issue significantly increase or decrease their ownership according to firm CSR scores on the issue and actively monitor firms via shareholder proposals and advocacy. In this paper, we further provide evidence that employee-focused SRI funds submit more employee-related shareholder proposals with an increase in their ownership of those firms. This evidence is consistent with the idea that these funds indeed push their portfolio firms to improve employee relations. Moreover, we show the positive relation between those SRI funds' increased ownership and higher employee satisfaction in those firms. Taking all the evidence into account, we discuss that firm financial performance will improve when SRI funds prioritizing employees increase their stakes in those firms while the channel to better performance is SRIs' engagement and monitoring of firm CSR practices being implemented properly. The shareholder engagement of SRI funds with firm policies is exemplified in an article related to Tesla, Inc.:

> Oregon's state pension fund has concerns about workplace safety, manufacturing infrastructure, and executive pay, State Treasurer Tobias Read said in an email. It is backing a proposal seeking to strip Musk of his chairman title. "Tesla is a company of the future and we want to ensure it has a future," he said.
> (*Bloomberg*)[3]

[3] *Bloomberg* (June 4, 2018), "Tesla Is Rejected by One Class of Investors Who Should Love It" by Emily Chasan.

Regarding involvement of socially conscious institutional investors in firm CSR policies, Dikolli et al. (2022) find that SRI funds are more likely to vote in favor of environmental and social shareholder proposals compared to non-SRI funds. Dyck et al. (2019) find that institutional ownership is linked to better environmental and social performance in those firms. Chen et al. (2020) document the positive relation between institutional investors and third-party environmental and social ratings. Focusing more on employee matters, Edmans (2011) documents SRI fund investment is related to employee satisfaction, and Heath et al. (2023) show that employees in firms with more SRI fund ownership rate their firm better and experience fewer workplace injuries. Building on these studies, we expand the focus to go beyond ESG outcomes and examine the influence of SRI funds with a particular interest in employees on their constituent firms' financial performance.

First, we effectively identify SRI funds that place a greater focus on employee relations in their equity investment strategies than other areas of CSR by analyzing textual mentions in each SRI fund's prospectuses. Then, we examine the effect of greater ownership by employee-focused SRI funds on invested firms' real performance, measured by return on assets (ROA). We find a significant improvement in ROA of approximately 1.6% for firms with employee-focused SRI funds' ownership greater than the sample median (henceforth, "High Ownership"). Further investigation of the ownership quintiles reveals that the more stakes in a firm the employee-focused SRI funds own, the greater their positive effect on the firm's ROA is. This is consistent with the idea that the greater involvement of employee-focused SRI funds in firm policies through their higher ownership of the firms may lead to performance improvement in those firms.

We propose that SRI funds' involvement in firm policies and implementations with respect to labor relations is the primary channel that explains our results of the increased firm performance. Hence, we examine SRI funds' engagements in labor issues through shareholder proposals and monitoring. The topics covered in the proposals filed by employee-focused SRI funds in our sample include "review/report on human rights policy," "report on ethic policy," "report on diversity," "report on gender pay gap," "report on Equal Employment Opportunity (EEO) standards," "improve human rights policies", "adopt sexual orientation anti-bias policy," and "implement international labor organization (ILO) standards".

We note that high SRI fund ownership and firm performance improvement might be endogenous. We mitigate this concern by conducting several instrumental variable regressions. We also find that a firm's average monthly stock returns and average monthly risk-adjusted returns increase by 19 and 14 basis points, respectively, when SRI funds with investment strategies that focus on employee relations have ownership in that firm above the sample median. Further, we find stronger results for the industry sectors in which human capital likely plays an essential role in operations. Lastly, we provide evidence that firms with greater ownership by employee-focused SRI funds indeed receive more employee-related shareholder proposals and advocacy, and, following the greater numbers of shareholder proposals and advocacy filed, ROA in the firms increases subsequently. Collectively, these results are consistent with the interpretation that SRI funds' involvement in firm policies and implementations associated with labor relations is the principal channel that improves employee motivation and thus firm performance.

Our paper makes the following contributions. First, our work explains the effect of a particular group of SRI funds on firm performance. We suggest that the effect is not attributable to general institutional ownership but only for funds with a labor relation focus. By showing that SRI funds' shareholder participation is particularly important for eventual firm performance improvement, our paper fills the gap in literature and explains how such

SRI funds' ownership can lead to better firm performance. Second, by comparing good employee relations to the rest of CSR areas, such as the environment, our paper presents which CSR areas firms should consider strongly when they require improvement in firm performance at the same time.

2 Data selection and variable construction

Our final sample extends from 2003 to 2019 and includes 32 SRI mutual funds, 3,821 firms, and 24,951 firm-year observations. We first construct a firm-year sample with firm performance and control variables and merge it with the mutual fund ownership and other fund characteristics data. As basic screens, we discard firms with a missing standard industrial classification (SIC) code or a SIC code in the range of 6000–6999 and 4900–4949 to exclude financials and regulated utilities, respectively.

2.1 Variables for SRI mutual funds

SRI mutual fund data are from the U.S. Forum for Sustainable and Responsible Investment (SIF) website (see http://charts.ussif.org/mfpc). Data for 146 SRI mutual funds on the website are sourced from Bloomberg's Environmental, Social and Governance (ESG) Service, which lists SRI funds for investment and their screening and advocacy criteria. Each SRI mutual fund member of the U.S. SIF is evaluated by these criteria. The survey is up-to-date as of December 2019 and backward-looking. Matching the sample of 146 SRI mutual funds to the Thomson Reuters' S12 holding data by fund names, we obtain 42 unique *equity* funds, most of which are eliminated because of redundant fund names in the SIF fund list (for example, Pax World Balanced Fund—Individual Investor vs Pax World Balanced Fund—Institutional Investor) and our exclusive focus on equity funds vs. fixed income funds. Detailed lists of Bloomberg ESG SRI funds and our SRI funds after matching with the Thomson Reuters S12 database are available in Online Appendix Table OA.1. Merging the 42-fund sample with the CRSP fund returns data yields our final sample of 32 equity SRI mutual funds.

We identify a primary investment focus (employee vs. non-employee) of each of those equity SRI mutual funds based on a textual analysis of funds' prospectuses. Textual analysis is a method that uses inference by objectively and systematically identifying certain characteristics within a text. Kostovetsky and Warner (2020) apply this technique to prospectuses of mutual funds. Loughran and McDonald (2011) and Ma et al. (2021) use textual analysis to obtain counts on specific words. While Hoberg and Maksimovic (2015) apply textual analysis through topic-specific vocabularies, Mittelbach-Hörmanseder et al. (2021) use this method to examine the annual report of companies to detect various CSR-related topics including employee-related words. Following these related studies, we collect and electronically process all prospectus-related filings submitted to the SEC's Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system by those funds. We classify a fund as an employee-focused SRI fund if the fraction of textual mentions of employee-related words is greater than the sample median in each year and do the same for non-employee-focused funds. In Sect. 4, we explain this method in detail. We then sum the ownership (in percentage) by these SRI funds with employee-focused and non-employee-focused separately, for each firm in a given year, and obtain two separate variables of Ownership for each kind of SRI funds. The full sample is used for both ownership calculations

and observations with zero values for ownership are included. High Ownership is a discretized version of Ownership, which equals one if Ownership of a given firm in a given year is greater than the sample median in that year and zero otherwise. This dummy variable is the main independent variable of interest. We also construct Ownership Q_1, Ownership Q_2, Ownership Q_3, Ownership Q_4, and Ownership Q_5, which equal one if Ownership of a given firm in a given year is in the lowest, second lowest, middle, second highest, and highest quintile, respectively. By sorting Ownership this way, we examine the influence of low to high degrees of SRI fund ownership more precisely.

2.2 Variables for firm performance and other characteristics

Firm performance and other characteristics variables are from the Compustat and CRSP databases. Firm performance measured by ROA is the ratio of earnings before interest and taxes (EBIT) to total assets. We also consider alternative measures of firm performance, Stock Returns, and Risk-adjusted Returns, for robustness. Stock Return is the arithmetic average of 12 previous months' stock returns for a given firm at its fiscal year-end month. Risk-adjusted Return is the market risk-adjusted return using the CAPM beta of the 12 previous months for a given firm at its fiscal year-end month. We use the following variables as control variables: Log(MV Assets), the natural logarithm of the market value of total assets (market value of common equity plus book value of preferred stock, long-term and short-term debt, and minority interest); Log(Firm Age), the natural logarithm of one plus firm age based on the first appearance in Compustat; M/B, the Market-to-Book ratio (common shares outstanding × closing price/total assets); Leverage, the ratio of the sum of debt in current liabilities and long-term debt to total assets; CAPX/Sales, calculated as the ratio of capital expenditures to sales; R&D/Sales, calculated as the ratio of research and development expenses to sales; Cash/Assets, calculated as net cash holdings over total assets; and TNIC Compete, Hoberg and Phillips' (2010) text-based network industry competition (TNIC) measure for a given firm in a given year. All variables, except Log (MV Assets) and Log (Firm Age), are winsorized at the 1% and 99% levels to avoid outlier effects. Detailed definitions of variables are provided in Appendix Table A.1.

3 Summary statistics and univariate analyses

3.1 Summary statistics

Table 1 reports the summary statistics on firms. Panel A presents firm-year level aggregate SRI fund ownership. Employee-focused SRI funds own 2.8% of a firm on average. For the firms identified as owned highly by those funds, the average ownership is approximately 17.2%. For non-employee focused SRI funds, the average Ownership is 2.7%. When we identify firms as owned highly by non-employee focused funds, the average ownership is 24.5%. Ownership in quintiles 1 through 3 is nearly zero for both fund groups. The average ownership levels for the employee-focused SRI funds for quintiles 4 and 5 are 3.4% and 39%, respectively, and are 5.4% and 53.9%, respectively, for the non-employee focused SRI funds.

Panel B summarizes variables for our main variable of interest (High Ownership dummy), firm performance, and other firm characteristics used as controls in our analyses. First, we identify 15.8% of firms in our sample as highly owned by employee-focused funds

Table 1 Summary Statistics on Firms

	Mean	SD	Min	Median	Max
Panel A: Fund ownership (firm-year level)					
Employee Focus SRI Funds					
Ownership	0.028	0.126	0.000	0.000	1.000
Ownership when High Ownership = 1	0.172	0.276	0.003	0.044	1.000
Ownership in Quintile 1	0.001	0.001	0.000	0.001	0.004
Ownership in Quintile 2	0.003	0.002	0.001	0.002	0.006
Ownership in Quintile 3	0.005	0.003	0.002	0.005	0.012
Ownership in Quintile 4	0.034	0.022	0.010	0.025	0.093
Ownership in Quintile 5	0.390	0.329	0.034	0.245	1.000
Non-employee Focus SRI Funds					
Ownership	0.027	0.133	0.000	0.000	1.000
Ownership when High Ownership = 1	0.245	0.332	0.010	0.074	1.000
Ownership in Quintile 1	0.001	0.001	0.000	0.001	0.003
Ownership in Quintile 2	0.004	0.002	0.002	0.003	0.007
Ownership in Quintile 3	0.014	0.006	0.007	0.013	0.031
Ownership in Quintile 4	0.054	0.031	0.015	0.047	0.139
Ownership in Quintile 5	0.539	0.352	0.068	0.417	1.000
Panel B: Firm characteristics (firm-year level)					
High Ownership by Employee Focus SRI Funds	0.158	0.365	0.000	0.000	1.000
High Ownership by Non-employee Focus SRI Funds	0.108	0.310	0.000	0.000	1.000
Return on Assets	0.031	0.141	-0.680	0.053	0.297
Stock Return	0.014	0.035	-0.086	0.013	0.132
Risk-adjusted Return	0.006	0.033	-0.080	0.005	0.116
Log(MV Assets)	7.594	1.553	4.649	7.394	11.916
Log(Firm Age)	2.655	0.943	0.000	2.773	4.220
M/B	2.164	1.542	0.408	1.668	9.283
Leverage	0.216	0.203	0.000	0.188	0.907
CAPX/Sales	0.092	0.207	0.002	0.036	1.522
R&D/Sales	0.161	0.706	0.000	0.004	5.947
Cash/Assets	0.196	0.209	0.001	0.117	0.908
TNIC Compete	0.032	0.027	0.000	0.026	0.822

The table shows descriptive statistics for firm variables used in our analyses for the sample period from 2003 to 2019. Our sample includes 32 SRI mutual funds, 3,821 firms, and 24,951 firm-year observations. Panels A and B present summary statistics for fund ownership and firm characteristics at the firm-year level. All variables are winsorized at the 99% level. Variable definitions are available in Appendix Table 10

and 10.8% as owned highly by non-employee focused funds. The average ROA, which is our main firm performance measure, is 0.031. The alternative performance measures including monthly stock returns and risk-adjusted returns have averages of 1.4%, and 0.6%, respectively. On average, the firm size in our sample is approximately 7.59 as measured by Log (MV Assets). Log (Firm Age) is 2.66, which translates as approximately 14 years. The average M/B and book leverages are 2.2 and 21.6%, respectively. The average CAPX and

R&D expenditures are 9.2% and 16.1% of total sales, respectively. The average cash holding is 20% of total assets. The mean product competition is 0.03 as measured by the TNIC.

Table 2 presents the summary statistics on SRI funds. First, Panel A summarizes characteristics of funds with and without an employee focus. The average monthly total net assets are roughly $604 million for employee-focused SRI funds and $523 million for non-employee-focused SRI funds. The right-skewed distribution of fund size suggests that our SRI fund sample contains many large mutual funds. The average monthly fund returns are (3.5%) 2.9% for (non-)employee-focused SRI funds. SRI funds focusing on employee relations have 129 firms in their portfolios on average, while those funds that have a different focus than employee relations have 98 firms in their portfolios. SRI funds maintain their ownership in a firm for about 2 years on average. These suggest that employee-focused SRI funds invest and engage in more firms, they are not short-term investors, and they are more likely to influence those companies through their long-term ownership.

[Panels B and C report characteristics of SRI funds' shareholder proposals and advocacy. On average, 69% of all SRI funds in our sample submit shareholder proposals in board meetings and also engage in shareholder advocacy. Employee-focused SRI funds show a higher involvement rate at 81% and submit shareholder proposals, particularly on topics related to improving workplace conditions and protecting employee rights. Such topics are presented in Panel C. It is worth mentioning that there is a trend within the SRI funds with shareholder proposals and advocacy. The employee-focused SRI funds' percentage is increasing over time (80–90%) while all funds' percentage is decreasing (75%-68%). This implies that SRI funds with a focus on labor relations are the particular group of SRIs that engage increasingly more in the policies of firms they invest in, compared to any other groups of SRIs. This is suggestive evidence for a potential channel that might explain how and why those employee-focused SRI funds can improve firm performance while the other SRI funds fail to achieve that.

3.2 Univariate analyses

We next examine the relation between firm performance and SRI ownership. Table 3 reports the average firm performance measured by ROA by firm employee CSR score and employee-focused fund ownership along with the differences and *p*-values from *t*-tests. We split firm-year observations into rows (1) through (4), first by positive vs. non-positive employee CSR scores and second by whether the aggregate ownership by the SRI funds with an employee focus is positive or zero in a given firm in a given year. We repeat this analysis in rows (5) through (8) by positive vs. non-positive employee CSR scores and by whether the aggregate ownership by the SRI funds with an employee focus is high or low instead, in a given firm in a given year. Firm Employee CSR Score is positive (non-positive) if a firm's Employee Kinder, Lydenberg, and Domini (KLD) score is positive (zero or negative) in a given year.[4] Employee-focused Fund Ownership is positive (zero) if the aggregate ownership of a given firm by the SRI funds with an interest in labor relations is positive (zero) in a given year. Employee-focused Fund Ownership is high (low) if the aggregate ownership of a given firm by those SRI funds is higher (lower) than the sample median.

[4] The Employee KLD score for a firm in a given year is the number of KLD Strengths (maximum value of 12) minus the number of KLD Concerns (maximum value of 7) in Employee Relations and Human Rights areas.

Table 2 Summary Statistics on SRI Funds

Panel A: Fund characteristics

	Mean	SD	Min	Median	Max
Employee-focused SRI Funds					
Fund Size ($MM)	603.792	1487.837	0.502	120.775	9284.150
Fund Return	0.029	0.082	−0.084	0.009	0.324
No. of Firms Invested Each Year	128.809	207.789	1	57	819
Avrg Investment Period (years)	1.967	1.091	1	1	4
Non-employee-focused SRI Funds					
Fund Size ($MM)	523.463	821.059	0.508	83.921	3820.042
Fund Return	0.035	0.094	−0.181	0.012	0.315
No. of Firms Invested Each Year	97.910	114.873	4	44	498
Avrg Investment Period (years)	2.050	1.109	1	1	4

Panel B: SRI funds with shareholder proposals and advocacy (%)

Year 20:	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
All Funds	75.0	80.0	75.0	75.0	75.0	66.7	66.7	70.0	66.7	66.7	65.5	69.0	65.5	65.5	70.0	67.9	67.9
Employee-focused Funds	80.0	71.4	69.2	73.4	92.9	84.2	78.9	76.5	57.1	69.2	93.3	86.7	81.8	84.7	92.3	91.7	90.4

Panel C: Shareholder proposal topics by employee-focused SRI funds

Review/report on human rights policy
Report on ethic policy
Report on Equal Employment Opportunity standards
Report on diversity
Report on gender pay gap
Improve human rights policies
Implement International Labor Organization (ILO) standards
Adopt sexual orientation anti-bias policy
Design sustainable workplace ceiling
Adopt sustainable store siting policy

The table shows descriptive statistics for fund variables used in our analyses for the sample period from 2003 to 2019. Our sample includes 32 SRI mutual funds and 477 fund-year observations. Fund Size and Fund Return are winsorized at the 99% level. We collect shareholder proposal data from Institutional Shareholder Services (ISS) and advocacy data from Bloomberg's Environmental, Social, and Governance (ESG) Service's list of SRI funds for investment and advocacy criteria. SRI funds submit shareholder proposals to be discussed and approved in firms' board meetings. Advocacy refers to SRI mutual funds' filing or co-filing shareholder resolutions and engaging in private dialogue on various CSR issues. Variable definitions are available in Appendix Table 10.

In row (1), in which firms have positive employee CSR scores and non-zero ownership by the employee-focused SRI funds, the average ROA is 0.086. For those firms with positive employee CSR scores but no ownership by such SRI funds in row (2), the average ROA is approximately 0.031. Thus, the difference in firm ROA associated with the presence of employee-focused SRI funds is estimated at approximately 5.5% (=0.086−0.031) with statistical significance at the 1% level. We find similar results for the firms with

Table 3 Firm Performance by Firm Employee CSR Score and Employee-focused SRI Fund Ownership

	Firm Employee CSR Score	Employee-focused Fund Ownership	Return on Assets
(1)	Positive	Positive	0.0861
(2)		Zero	0.0316
		Difference	0.0545***
		p-value	(0.000)
(3)	Non-positive	Positive	0.0596
(4)		Zero	0.0005
		Difference	0.0591***
		p-value	(0.000)
(5)	Positive	High	0.0961
(6)		Low	0.0447
		Difference	0.0514***
		p-value	(0.000)
(7)	Non-positive	High	0.0731
(8)		Low	0.0075
		Difference	0.0656***
		p-value	(0.000)

The table presents firm performance measured by average ROA for different groups of firm employee CSR scores and employee-focused SRI fund ownership. It also gives the differences and p-values from t-tests. Firm Employee CSR Score is Positive (Non-positive) if the Employee KLD score of a given firm is positive (zero or negative) in a given year. Employee-focused Fund Ownership is Positive (None) if the SRI funds' aggregate ownership of a given firm is positive (zero) in a given year. Employee-focused Fund Ownership is High (Low) if the SRI funds' aggregate ownership of a given firm is greater (less) than the sample median

non-positive Firm Employee CSR Score in rows (3) and (4). The incremental effect on ROA associated with the presence of employee-focused SRI funds is approximately 5.9% with statistical significance at the 1% level in these rows. Furthermore, when we compare firm performance measured by ROA between high and low Employee-focused Fund Ownership for the same two groups of firms with positive and non-positive Firm Employee CSR Scores, we obtain similar results. The ROA differences that derive from high vs. low ownership by employee-focused SRI funds are estimated at approximately 5.1% and 6.6% for the firms with positive and non-positive employee CSR scores, respectively. Both differences are statistically significant at the 1% level.

The results in this table suggest that firm performance is more likely to be associated with whether SRI funds that emphasize good employee relations have ownership of the firms rather than the firms' own positive CSR scores that appear in the KLD rating system. ROA is still high and positive even for firms with non-positive employee CSR scores as long as they have positive or high employee-focused SRI fund ownership i.e., 5.9% and 7.3%, respectively. In other words, the ownership by SRI funds with an employee focus has a stronger positive relationship with those firms' ROA than such firms' own CSR activities in employee relations have. Nevertheless, it is worth noting that the ROA is slightly greater for firms with positive Firm Employee CSR scores than for those with non-positive scores, considering each case of "positive" and "high" SRI fund ownership. This is likely

because firms' own CSR efforts to improve their employee relations and SRI fund involvement complement each other to a certain extent.

4 Empirical methodology and results

4.1 Identification of employee-focused SRI funds

Our main variable of interest is high ownership by SRI funds that particularly concern good employee relations. Some SRI funds, but not others, emphasize employee-related issues strongly for some years. To determine whether an SRI fund is employee-focused in a given year, we examine each SRI mutual fund's prospectuses and communications with investors submitted to the SEC.

We download all prospectus-related filings that are likely to include funds' disclosures of investment strategies from the SEC's EDGAR for the sample period from 2003 to 2019.[5] Those filings are registration statements that contain an initial prospectus (form N-1A or 485), summary prospectus (form 497 K), periodic update to fund prospectus (form 497), and annual/semi-annual shareholder reports (form N-CSR or N-CSRS). Then, we extract the frequency of each word from a list of employee keywords and compute the fraction of those keywords for each filing. The employee keywords include "employee," "employees," "worker," "workers," "employment," and "labor." For example, these employee keywords extract the following paragraph and classify Parnassus Endeavor Fund to be an employee-focused SRI fund in 2014:

> "The Parnassus Endeavor Fund normally invests at least 80% of its net assets (plus borrowings for investment purposes) in companies believed by the Fund's investment adviser (Adviser) to provide good workplaces for their *employees*. Companies with good workplaces usually are able to recruit and retain better *employees* and perform at a higher level than competitors in terms of innovation, productivity, customer loyalty and profitability. While no company is perfect, the Adviser makes a judgment as to which companies have good workplaces based on factors such as respectful and fair treatment of *employees*, *employee* satisfaction and engagement, pay and benefits, family-friendly policies, and support for volunteerism and philanthropy. These companies must, in the Adviser's opinion, be undervalued, but they must also have good prospects for long-term capital appreciation over the course of the expected holding period."
>
> *(Parnassus Fund's SEC form 497 filing for the fiscal year 2014)*

We also consider other words that are broadly associated with possible investment strategies of funds concerning CSR employee relations, such as "employ," "personnel," "hire," "recruit," "staff," "wage," "salary," and the variations of these words. However, we note that including these words that are broadly associated with employee relations simply adds noise, particularly related to funds' own employment. We thus use a concise list of employee keywords eventually that are more strictly related to the concept of CSR employee relations. Our results are qualitatively similar when we use the broad list of employee keywords.

[5] We begin our sample in 2003 because that is the first year when the coverage of the KLD database became relatively complete. We use the KLD scores for our later analyses. We stop the sample in 2019 not to include the unusual shock caused by the Covid-19 in 2020 and 2021.

For each fund in a given year, we keep the average of employee-keyword fractions (calculated as the number of employee-related keywords divided by the total number of words in a filing) across multiple filings. Finally, we classify an SRI fund in a given year as employee-focused if the average fraction of the employee keywords is greater than the sample median in that year and non-employee-focused otherwise. In this way, we identify each SRI fund's time-varying investment preference (disclosed to investors through periodic filings) for employee relations, the focus of our study.

Next, we validate the quality of the information in this text-based identification by examining the overlap between our text identification and the identification made by another data source. We consider the Sustainable Investment Mutual Funds and ETFs Chart available from the U.S. SIF. The SIF chart provides 108 sustainable investment mutual funds and ETFs offered by the SIF's institutional member firms. We only consider 42 equity SRI funds among them and examine how similar our and their identifications of employee-focused funds are. The information from the chart offers a strong validation for our text-based identification as the data are self-reported by institutional member firms of the SIF that offer those mutual funds. However, the information from the chart is only current and not time-varying, while our text-based identification is annually updated by processing SEC filings.[6] We thus take the fund average of our annual measure and examine its correlations to the chart scores for the following eight CSR categories: employee, employee rights, all, humanity, diversity, community, environment, and governance. For validation of our measure, we expect our measure to be most highly correlated with employee and employee rights and also weakly correlated with other labor-related categories including humanity and diversity. Online Appendix Table OA.2 presents the correlation results. We find strong support for our prediction. The correlation coefficients of our measure to employee and employee right scores are the highest at 0.527 and 0.542, respectively. The least correlated score is the environment with a correlation coefficient of 0.093. Also, it is worth noting that the employee score from the SIF chart is highly correlated with almost all CSR areas in the second column, implying that SRI funds self-report their sustainable investment strategies to the SIF rather broadly. In contrast, our measure is able to pick up the nuanced difference in their investment focus toward employee relations.

4.2 SRI fund ownership and firm performance

We perform two sets of regression analyses comparing SRI funds with an employee focus vs. a non-employee focus identified by our text-analysis based classifications. For the first set of tests, we consider ownership by the SRI funds which have a greater emphasis on employee-related CSR. The second set of analyses considers ownership by the SRI funds which do not focus on employee-related CSR. In each set, we regress firm performance measured by ROA on Ownership, which is the aggregate ownership by such SRI funds for each firm in the prior year. We control for other factors that prior studies find to be important in examining firm performance with a one-year lag. We include year and industry (based on three-digit SIC codes) fixed effects and adjust standard errors for clustering within firm. The model is specified as follows:

[6] The information from the chart is current as of October 30, 2020. We use the chart downloaded from the site in 2020. Results are consistent with using the most current chart.

$$Y_{j,t} = \alpha + \beta \times X_{j,t-1} + \sum_{l=1}^{8} \gamma_l \times FirmControls_{j,t-1,l} + \mu_{j,t,} \quad (1)$$

where j is a firm; t is a year; Y is ROA; and X is the aggregate ownership by relevant SRI funds.

Table 4 presents the regression results using the textual analysis-based classifications of SRI funds with an employee-relation focus. In Column (1), the coefficient for Ownership is significantly positive when the sample of employee-focused SRI funds is considered. This suggests that the aggregate ownership by the SRI funds focused particularly on good employee relations is associated positively with firm performance. The economic magnitude of this effect is that ROA is 2.10% greater when SRI funds with an employee-relation focus increase ownership of the firm by 1%. The positive association between firm real performance and the ownership by employee-focused SRI funds supports the good governance view that employee CSR is consistent with value-maximizing corporate governance practices for all stakeholder value. In contrast, in Column (4), the result considering the SRI funds with a non-employee focus shows a negative association between Ownership and ROA. This statistically insignificant association implies that ownership by funds that are concerned with CSR areas irrelevant to employee relations is not related to improved performance. A potential explanation could be that a strong influence on a firm from non-employee focused funds might hurt the firm's employee motivation. When employees believe that their firm participates more in other CSR areas, such as the environment or the governance, than employee-related areas, this can negatively affect employee motivation, and thus, firm performance.

We note that our result in Column (1) does not rule out other economic interpretations, such as mutual funds' skill in identifying firms (stock-picking ability) with a high likelihood of having improved performance in subsequent years. However, this stock-picking ability interpretation predicts that ownership by both groups of SRI funds, those with and without a focus on employee relations, should be linked positively to firm performance. Instead, we find the negative (and insignificant) link in Column (4) for SRI funds with a non-employee focus. Therefore, this result not only rules out the interpretation based on mutual funds' stock-picking skills but also suggests that SRI funds' employee-focused investment policies likely are the relevant channel for the positive economic link.

The second regression analysis considers Ownership quintiles as the main variables of interest. Q_n is a dummy variable that equals one if Ownership of a given firm in a given year is in the n^{th} quintile and zero otherwise. This allows us to examine our results at different levels of SRI ownership. The model is otherwise the same as in (1):

$$Y_{j,t} = \alpha + \sum\nolimits_{n=1}^{5} \beta_n \times X_{j,t-1,n} + \sum_{l=1}^{8} \gamma_l \times FirmControls_{j,t-1,l} + \mu_{j,t}, \quad (2)$$

where j is a firm; t is a year; Y is ROA; and X is the dummy variable for Ownership in the n^{th} quintile.

In Column (2), the result shows that the positive association between SRI ownership and ROA is stronger for a higher ownership quintile when employee-focused SRI funds are considered. All coefficients are significantly positive, except the first quintile. More importantly, the effect tends to be linear with ownership levels. This is consistent with the interpretation that a greater influence by employee-focused SRI funds through larger ownership stakes in a firm is more likely to be related to firm performance improvement

Table 4 Employee-focused SRI Fund Ownership and Firm Performance

	Return on Assets					
	SRI funds with employee focus			SRI funds with non-employee focus		
	(1)	(2)	(3)	(4)	(5)	(6)
Ownership	0.0210***			−0.00873		
	(2.92)			(-0.93)		
Ownership Q_1		−0.00414			0.00588	
		(−0.91)			(1.40)	
Ownership Q_2		0.00818**			0.00822*	
		(2.06)			(1.67)	
Ownership Q_3		0.00798**			0.00596	
		(2.12)			(1.60)	
Ownership Q_4		0.0180***			0.000453	
		(5.21)			(0.13)	
Ownership Q_5		0.0232***			0.00104	
		(5.57)			(0.20)	
High Ownership			0.0162***			0.000218
			(6.19)			(0.07)
Log(MV Assets)	0.0147***	0.0131***	0.0134***	0.0150***	0.0143***	0.0149***
	(11.45)	(9.73)	(10.36)	(11.62)	(10.52)	(11.45)
Log(Firm Age)	0.0102***	0.00964***	0.00978***	0.0103***	0.0100***	0.0103***
	(5.09)	(4.82)	(4.89)	(5.16)	(5.03)	(5.14)
M/B	0.0117***	0.0114***	0.0115***	0.0117***	0.0117***	0.0118***
	(5.23)	(5.08)	(5.10)	(5.22)	(5.23)	(5.24)
Leverage	−0.0603***	−0.0585***	−0.0585***	−0.0601***	−0.0595***	−0.0603***
	(−3.99)	(−3.89)	(−3.88)	(−3.98)	(−3.92)	(−3.98)
CAPX/Sales	−0.0229**	−0.0235**	−0.0235**	−0.0229**	−0.0227**	−0.0228**
	(−2.40)	(−2.47)	(−2.47)	(−2.40)	(−2.38)	(−2.40)
R&D/Sales	−0.0379***	−0.0378***	−0.0379***	−0.0379***	−0.0379***	−0.0379***
	(−8.15)	(−8.13)	(−8.15)	(−8.15)	(−8.14)	(−8.15)
Cash/Assets	−0.101***	−0.1000***	−0.100***	−0.101***	−0.101***	−0.101***
	(−7.09)	(−7.04)	(−7.05)	(–7.08)	(–7.07)	(–7.09)
TNIC Compete	−0.201**	−0.200**	−0.199**	−0.204**	−0.202**	−0.203**
	(−2.43)	(−2.42)	(−2.41)	(−2.47)	(−2.45)	(−2.46)
Observations	23,001	23,001	23,001	23,001	23,001	23,001
Adjusted R^2	0.302	0.303	0.303	0.302	0.301	0.302
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year

The table presents results of the regressions of firm performance measured by ROA on employee-focused SRI funds' ownership. Employee-focused SRI funds are identified by our textual analysis of SEC filings for the mentions of employee-related keywords. See Sect. 4.1 for the details of the textual analysis method. Ownership is aggregate ownership of SRI funds with an employee focus (Columns 1–3) or non-employee focus (Columns 4–6) in a given firm in a given year. The full sample is used for both ownership calculation and values of zero for ownership are included. Q_n is a dummy variable that equals one if Ownership of a given firm in a given year is in the n^{th} quintile, and zero otherwise. High Ownership is a dummy variable that equals one if Ownership of a given firm in a given year is greater than the sample median, and zero otherwise. Variable definitions are available in Appendix Table 10. Observations are at the firm-year level. All control variables are lagged one year. Three-digit SIC code industry fixed effects and year fixed effects

Table 4 (continued)

are included. *t*-statistics (in parentheses) are robust and adjusted for clustering within firm. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively

to a greater extent. However, larger ownership stakes by SRI funds with a focus irrelevant to employee relations have no relation to ROA improvement, as Column (5) shows insignificant results for quintiles.

We further examine the differential effects of high vs. low aggregate ownership by SRI funds in our next set of tests. We replace Ownership in model (1) with High Ownership, a discretized version of Ownership that equals one if Ownership of a given firm in a given year is greater than the sample median and zero otherwise. The model otherwise is the same as model (1). In Column (3), the coefficient of High Ownership is significantly positive at the 1% level. Companies show 1.62% higher ROA in the following year when SRI funds more interested in good employee relations have 1% greater stakes in those firms. In contrast, firm performance is not affected by greater ownership by SRI funds with a stronger focus on other areas of CSR, as shown in Column (6).

To examine the effect of the ownership by employee-focused SRI funds on firm performance in comparison to ownership by SRI funds with different focuses, we run our main analysis with ownership variables of both kinds of SRI funds simultaneously included in the model. Results in Online Appendix Table OA.3 indicate the strong impact of employee-focused SRI fund ownership on firm performance while we find no significant impact of ownership of SRI funds with other focuses. These findings further validate our original results and provide direct evidence to highlight the importance of the dimension of employee relation. To show the incremental effect of the ownership by employee-focused SRI funds and that our results are not driven by firm CSR itself, we include firm KLD scores as an additional control variable and run analogous tests in Online Appendix Table OA.4. We find that our results are robust to the inclusion of firm KLD scores. We use industry-fixed effects to focus on relevant cross-firm variation in SRI fund ownership, which comprises the majority of the variation in the measure. However, we also repeat the analyses with High Ownership for ROA (and other performance measures discussed in Sect. 6.2) using firm fixed effects instead of industry fixed effects. The results are similar and presented in Online Appendix Table OA.5. Also, we address the potential concern that the performance responses are not rapid to be manifested in the following year by estimating the main regression model using ROA in two, three, or four years relative to High Ownership. We find the results are robust to allowing more time for the performance responses. These results are reported in Online Appendix Table OA.6.[7]

Overall, our results suggest that higher real performance in a firm is related to the greater influence of SRI mutual funds on the firm, but only when those funds concern employee relations. One possible explanation for this exclusive relevance to employee relations is the economic link between employee satisfaction and firm performance. Through shareholder advocacy, proposals, and monitoring, these funds engage more in firms' corporate

[7] For further robustness, we consider the following additional tests. First, we include Employee KLD Score as an additional control variable. Second, we control for the percentage of institutional ownership to mitigate the concern that our results are driven by general institutional investors, not SRI funds with an employee focus. Third, we control for the log of the total number of employee-focused SRI funds invested in a given firm in a given year to mitigate the concern that our results are from one dominating SRI fund. Fourth, to address the concern that younger firms with possibly less formal HR policies in our sample might drive the results, we repeat the same analyses in Table 4 for a subsample of firms with age in the top quartile of the distribution. Our results are consistent throughout these robustness tests.

labor policies. Such engagement of employee-focused SRI funds can help ensure enhanced employee rights and improved working conditions within the firm, which eventually motivate employees to work more efficiently and thus perform better. Our previous univariate analysis in Table 2 and the regression analysis later in Table 6 regarding shareholder proposals and advocacy show consistent evidence that our results are driven by this channel of SRI funds' increased engagement in corporate employee relations.[8]

4.3 Activist fund effects

One potential concern is that employee-focused funds in our sample are activist funds that play the role of improving firm performance. Therefore, the effect we find thus far might be from the fund activism channel and not through the employee focus of the funds. It is unlikely that our classification of SRI funds that is based on the textual analysis of solely employee keywords systematically implies any other categorization, such as active vs. passive funds. Rather, it should be interpreted as the classification of investment strategies orthogonal to the degree of active engagement. Nevertheless, we explicitly address the validity of this potential concern with the following empirical approach.

Similar to the textual analysis approach identifying employee-focused funds, we assemble a list of keywords for activist funds (activist keywords). We manually investigate the list of all unique words mentioned in the same set of fund filings (initial prospectus, summary prospectus, periodic update to fund prospectus, and annual/semi-annual shareholder report) and identify the keywords that can make a fund an activist fund. We provide the complete list of the activist keywords in Online Appendix Table OA.7. For each fund in a given year, we calculate the average fraction of the activist keywords and define the fund as an activist fund in a given year if the fraction is greater than the sample median. Then, we create the analogous measures to the main variables of interest in Table 4 i.e., Ownership, Ownership Q1-Q5, and High Ownership, for the identified activist funds and additionally include them as control variables. We expect the estimated coefficients for our original variables of interest to remain intact after including these controls if the effects we find are not just from the activist fund channel but through the employee-focus of the funds. Online Appendix Table OA.8 presents the results.

We find that the original results are robust to controlling for the variables on activist funds' ownership. Importantly, the coefficients of those activist-fund controls are statistically insignificant and close to zero, regardless of whether they are interacted with the employee-focused fund ownership variable or standalone variables.[9] Overall, the results provide clear evidence that our findings are not merely driven by the effects of activist funds. Also, the results are consistent with an interpretation that the positive effects of

[8] It is possible that the high-tech and healthcare sectors, due to their genuine technological breakthroughs and favorable economies of scale, enjoyed unprecedented growth opportunities during our sample period which enabled firms in those sectors to offer generous employee perks and benefits in addition to lucrative compensation packages. These growth opportunities could both attract employee-focused SRI funds to invent in those firms and directly improve firm financial performance. However, our analyses in Table 9 show that our original results are robust to excluding these sectors.

[9] The correlation coefficient between ownership by employee-focused funds, i.e. "Ownership", and ownership by activist funds, i.e. "Ownership (Active)", is 0.57, indicating that many employee-focused funds are also activist funds. The significantly negative, albeit close to zero, coefficient estimate for "Ownership (Active)" is likely due to the fact that the positive effect of the activist funds on ROA is primarily merged into the positive effect of "Ownership".

activist funds on invested firms identified in previous literature are not through the real performance manifested in ROA.

5 Endogeneity concern

We recognize that SRI funds' decisions to invest in a firm and firm performance may be endogenous. With respect to the reverse causality concern, SRI mutual funds may increase ownership as a consequence of a firm's improved performance. This is not the case in our analysis, as our regression model is specified to predict ROA in the following year with the one-year lagged SRI ownership. A second concern pertains to omitted variables that might affect firm performance and SRI fund investment decisions simultaneously. We address this concern by using instrumental variable (IV) regressions. As no one variable can make a perfect instrument, we consider three different instruments that can potentially and importantly affect SRI fund ownership of portfolio firms. We first instrument funds' decisions to have greater ownership in a firm using a variable that exploits state-level constituency statutes. A constituency statute, also referred to as a stakeholder statute, states expressly with state-specific variation in language that directors are empowered to balance the interests of all stakeholders, including employees, customers, suppliers, the environment, the local community, and any other constituency affected potentially, in the way that their conscience or good faith decisions dictate.[10] Flammer and Kacperczyk (2015) show that the enactment of constituency statutes leads to a substantial increase in stakeholder orientation at the firm level. We assume that the effect of constituency statutes also holds for institutional investors incorporated in the states that have enacted such statutes. Therefore, it shall act as a second layer of identification of emphasis on employee relations for those SRI funds that we have already classified as "employee-focused" through the textual analysis method. A total of 34 states in the U.S. have adopted constituency statutes and the list of those states is available in Table OA.9 in the Online Appendix. Approximately 75% of SRI funds in our sample derive from states with constituency statutes.

Prior studies that use the state-level constituency statutes as a causal identification include, for example, Flammer and Kacperczyk (2015), Geczy et al. (2015), and Gibson et al. (2021). Unlike Flammer and Kacperczyk (2015) and Geczy et al. (2015), who have a longer sample period extending back to the 1970s and thus can exploit the staggered enactments of constituency statutes in a difference-in-differences setting, we use an instrumental variable regression approach similar to Gibson et al. (2021) instead because of our relatively recent sample period.[11] Therefore, we create an instrument (Constituency Statute Funds) that is the fraction of employee-focused SRI funds incorporated in the states with constituency statutes to the total number of employee-focused SRI funds that invested in a given firm in a given year. This instrument captures the presence of the employee-focused SRI funds located in states with constituency statutes, and therefore, their incentives to maintain greater ownership of firms and also influence those firms in a way consistent with constituency statutes. It is natural to expect that the SRI funds with the intensified focus on

[10] See, for example, Orts (1992) for a detailed interpretation of stakeholders in constituency statutes.

[11] All enactments except one case, Texas, fall outside our sample period from 2003 to 2019. Further, the most recent enactment in Texas in 2006 that falls in our sample period is irrelevant to our SRI funds, as none of the funds are incorporated in Texas.

employee relations located in those states shall invest more in firms and increase their ownership to be able to implement their policies more strongly.[12]

Also, we consider an alternative instrument based on capital flows of employee-focused SRI funds. This fund flow-based instrument captures greater resources of SRI funds for buying shares and thus increasing their ownership in interested firms. Edmans et al. (2012) show that mutual funds indeed increase their ownership in a firm following an increase in investor flows. We use the methodology of Edmans et al. (2012), Wardlaw (2020), and Jin et al. (2020) to construct our instrument. SRI Inflow(%) is the sum of $(TNA_{(i,t)}–TNA_{(i,t-1)})/TNA_{(i,t-1)}$, where $TNA_{(i,t)}$ is the total net assets of an SRI fund *i* invested in that firm *j* in year *t*.[13]

The last instrument is based on Morningstar ratings. As an investment research firm, Morningstar rates investment funds on a five-star scale based on their risk-adjusted returns within an investment category using a complex algorithm. Importantly, it is nearly impossible for funds to manipulate their rating. Further, Reuter and Zitzewitz (2021) and Heath, et al. (2023) show that these ratings exogenously influence the capital flows by investors to funds with discontinuities in Morningstar ratings preceding the sharp discontinuities in capital allocation. Following these papers, we construct MRating as a dummy that is equal to one if the Morningstar rating for that fund increases from year *t-1* to year *t* and zero otherwise.[14] This instrument exogenously predicts the increasing SRI fund ownership in interested firms because the increase in the Morningstar rating leads to higher capital inflow to those SRI funds and thus provides more resources to buy shares of firms they prefer. To validate the link between the Morningstar rating and SRI fund inflow in our sample, we conduct an untabulated regression analysis and find that MRating increases SRI Inflow(%) by 15.67% at the 1% significance level.

In the first stage of the IV regressions, we predict High Ownership with Constituency Statute Funds, SRI Inflow(%), and MRating. All three instruments are lagged by one year relative to High Ownership. Then, we run the second-stage regression using the instrumented High Ownership to explain ROA in the subsequent year. Table 5 presents the results.

In the first-stage regression of Column (1), we find a significant and positive coefficient estimate for the first instrument, Constituency Statute Funds. This indicates that employee-focused SRI funds from the states that have enacted constituency statutes are more likely to have greater ownership stakes in a firm and therefore exert a stronger influence on the firm than funds from the states without such statutes. The exclusion restriction for this instrument likely holds as the geographic location of SRI funds should not be related to the performance of firms that they invest in. In the first-stage regression of Column (2) using the fund-flow based instrument, we also find a significant and positive coefficient estimate showing that employee-focused SRI funds buy more shares of firms and increase their ownership of those companies when they experience greater capital inflows. The exclusion restriction for this instrument also likely holds because the performance of an individual firm that a fund invests in is not directly related to investor net inflows to the

[12] We focus our examination on employee-focused SRI funds with this instrument. Hence, we do not make any claims about the investments in firms by non-employee-focused SRI funds located in states with constituency statutes.

[13] Investment data of some SRI funds are not available due to, for example, mergers between funds. For this reason, the sample size for this analysis is slightly smaller than that of our original sample.

[14] Our sample is slightly smaller than the original one as we lose observations due to missing data while we match our SRI funds to dataset of Morningstar ratings.

fund. Lastly, in the first-stage regression of Column (3), we also find a statistically significant and positive coefficient of MRating indicating that employee-focused SRI funds have higher ownerships of their portfolio firms when their Morningstar rating increases. The exclusion restriction is again likely to hold because a portfolio firm's performance should not be directly related to how Morningstar rates a fund that invests in that firm later. For all three first-stage regressions, we confirm statistically that our instruments pass the Cragg-Donald Wald and Kleibergen-Paap rk LM tests for weak instruments and under-identification, respectively.

The second-stage regression results for ROA in the subsequent years are shown in the last three Columns with a corresponding Column number in Table 5. Consistent with our original findings, the coefficient estimates for High Ownership-Instrumented are all positive and significant at the 1% level. These results collectively support the conclusion that firms under the stronger influence of employee-conscious SRI funds through the funds' greater ownership show higher subsequent firm performance. This relation is likely causal because the positive effect on ROA is still present when we consider only the increased influence of employee-focused SRI funds through the state-level constituency statutes, increased investor inflows to the SRI funds, or improved Morningstar rating of such funds.

6 Further analyses

6.1 Shareholder engagement by SRI funds

Thus far, we show that firm performance is more likely to be higher when employee-focused SRI funds maintain higher ownership in those firms. Our explanation of this positive link is that employee-focused SRI funds engage in and monitor firm CSR policies on employees. In this section, we examine this channel and ask whether SRI funds with an employee focus indeed involve more in a firm's labor issues and policies when they have a higher ownership in the firm.

First, we compare the average numbers of shareholder proposals, particularly employee-related proposals, and advocacy activities between the groups of firms with aggregate ownership by employee-focused SRI funds above and below the sample median. Shareholders, including SRI funds, submit their proposals to be discussed and approved in board meetings of the firms in which they invest. Those proposals can be on various topics, and SRI funds choose particular topics based on their investment objectives. Advocacy refers to filing or co-filing shareholder resolutions and engaging in private dialogue on various issues. We collect shareholder proposal data from Institutional Shareholder Services (ISS) and advocacy data from Bloomberg's Environmental, Social, and Governance (ESG) Service that lists SRI funds according to investment and advocacy criteria. We match the names of the proposal and advocacy submitters to our SRI fund names manually. We count the total number of proposals submitted by the SRI funds, particularly those on employee-related issues for a given firm in a given year. Similarly, we also construct Shareholder Proposals & Advocacy, additionally including advocacy by the SRI funds, if any.

As the first step in the analysis, we examine whether firms with greater ownership by employee-focused SRI funds have significantly more shareholder participation by those funds. Second, we take a more direct approach and link SRI funds to ROA through shareholder proposals using a 2SLS model. In the first stage, we regress the number of shareholder proposals and advocacy on SRI fund ownership to examine whether greater SRI fund ownership leads

Table 5 Employee-focused SRI Ownership and Firm Performance with Instrumental Variable Regressions

	First Stage: High Ownership			Second Stage: Return on Assets		
Model:	(1)	(2)	(3)	(1)	(2)	(3)
Constituency Statute Funds	0.273***					
	(23.31)					
SRI Inflow(%)		0.0541***				
		(10.09)				
MRating			0.179***			
			(11.70)			
High Ownership—Instrumented				0.0348***	0.0452***	0.0612***
				(3.21)	(2.72)	(4.05)
Log(MV Assets)	0.0678***	0.0605***	0.0844***	0.0122***	0.00896***	0.00964***
	(17.38)	(8.41)	(20.73)	(7.49)	(4.63)	(4.89)
Log(Firm Age)	0.0221***	0.0214*	0.0255***	0.00905***	0.0143***	0.00711***
	(5.24)	(1.76)	(5.88)	(4.31)	(5.18)	(3.11)
M/B	0.0126***	0.0320***	0.0170***	0.0104***	0.0169***	0.00842***
	(6.04)	(6.20)	(6.99)	(4.54)	(7.23)	(3.12)
Leverage	−0.0927***	−0.112***	−0.0820***	−0.0571***	0.000276	−0.0682***
	(−5.44)	(−2.90)	(−4.56)	(−3.75)	(0.02)	(−4.13)
CAPX/Sales	0.0319***	0.146***	0.0373***	-0.0239**	-0.0312**	-0.0180*
	(3.25)	(4.16)	(3.47)	(−2.48)	(−2.02)	(−1.74)
R&D/Sales	−0.00354*	−0.0182***	−0.00334*	−0.0373***	−0.0253***	−0.0506***
	(−1.96)	(−2.92)	(−1.65)	(−8.03)	(−3.78)	(−12.03)
Cash/Assets	−0.0300	−0.150**	−0.0388**	−0.0886***	−0.0213	−0.0886***
	(−1.53)	(−2.39)	(−2.00)	(−6.26)	(−1.02)	(−6.20)
TNIC Compete	−0.211*	−0.159	−0.388***	−0.173**	−0.151	−0.191**
	(−1.93)	(−0.81)	(−3.13)	(−2.22)	(−1.55)	(−2.30)
Observations	22,699	18,539	17,957	22,699	18,539	17,957

Table 5 (continued)

	First Stage: High Ownership			Second Stage: Return on Assets		
Model:	(1)	(2)	(3)	(1)	(2)	(3)
Adjusted R^2	0.286	0.118	0.247	0.307	0.239	0.328
Fixed Effects	Ind, Year, State	Ind, Year	Ind, Year	Ind, Year, State	Ind, Year	Ind, Year
Weak Inst. Test Stats	414.316	25.505	231.980			
Under-Id. Test Stats	282.089	24.856	70.306			

The table presents results of the instrumental variable regressions of ROA on employee-focused SRI funds' ownership. For models (1) to (3), the first-stage regression results are with the instrumental variables of Constituency Statute Funds, SRI inflow (%), and MRating, respectively. These variables are lagged one year relative to High Ownership. The second-stage regression results are with the instrumented High Ownership from the first-stage regressions. Variable definitions are available in Appendix Table 10. All control variables are lagged one year. Three-digit SIC code industry, year, and state fixed effects are included, where necessary. *t*-statistics (in parentheses) are robust and adjusted for clustering within firm. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. For weak and under-identification tests, Cragg-Donald Wald and Kleibergen-Paap rk LM statistics are shown, respectively

to greater shareholder participation in those firms. In the second stage, we regress ROA on the predicted value of shareholder proposals from the first stage and analyze whether such shareholder participation through greater SRI fund ownership is related to higher firm performance. Although shareholder proposals submitted by SRI funds with an employee focus are likely to be related to employee issues, we also additionally identify proposals that explicitly specify employee topics and consider their effect separately. Table 6 presents the results.

The results in Panel A show that shareholder proposal and advocacy activities collectively, and particularly those in employee-related topics, are greater for firms with higher ownership by employee-focused SRI funds. The mean differences between the two groups of firms are statistically significant at the 1% level for all three variables. This evidence suggests that those SRI funds are more likely to engage in firm policies, especially on employee-related CSR, by submitting relevant shareholder proposals when they have more stakes in those companies.

In Panel B, the first-stage regression results indicate that greater SRI fund ownership in a firm is positively and significantly associated with a greater number of shareholder proposals, particularly employee-related proposals. Further, the second stage findings show that the coefficient estimates for Shareholder Proposals (predicted), Employee-related Proposals (predicted), and Shareholder Proposals & Advocacy (predicted) are significantly positive at the 1% level in explaining firm performance measured by ROA. These results provide evidence that shareholder engagement of employee-focused SRI funds through shareholder proposals and advocacy is strongly associated with higher firm performance. With respect to the economic magnitude of the effect, we find in Column (4) that one additional shareholder proposal is associated with 0.97% higher ROA, and the effect is stronger at 3.66% in Column (5) when we consider employee-related proposals exclusively. Overall, the results in Table 6 suggest that the channel for the positive link between employee-focused SRI fund ownership and firm performance is likely to be SRI fund shareholders' participation in employee-related corporate policies.

We acknowledge that it is difficult to infer clear-cut causality because some SRI funds might pick firms upon their "good" employee relations, arguably, based on some rankings such as Best Places to Work. Although we introduce time lags in our model, this approach may not fully mitigate this potential concern. Therefore, we construct a "control" group and examine whether such institutional ownership would lead to performance improvement through their engagement in proposals and advocacy. Specifically, we test this relationship with firms that are not owned by SRI funds. After we construct a sample of firms with non-SRI fund ownership, we repeat the 2SLS regression analysis in Panel B of Table 6 where we replace High Ownership (by employee-focused SRI funds) with Institutional Ownership (by non-SRI funds). Results in Table OA.10 in the Online Appendix show that higher institutional ownership is associated with a greater number of shareholder proposals and advocacy in those firms, indicated by statistically significant and positive first-stage results. However, engagement by these non-SRI funds through such proposals and advocacy does not lead to better firm performance as shown by the statistically insignificant and even negative results from second-stage regressions. This insightful finding confirms our original claim that although institutional ownership, in general, translates into higher commitment by those investors, this can lead to improvement in firm performance only for those SRI funds with a particular focus on labor relations.

6.2 Alternative firm performance measures

Our previous analyses use ROA as the primary measure of firm performance. In this section, we extend our tests by examining the impact of high ownership by employee-focused SRI funds on stock returns and risk-adjusted returns instead. If the real performance

improvement measured by ROA is economically valuable to investors, we should observe consistent results in financial performance measured by, for example, stock returns and risk-adjusted returns. The predicted link between real and financial performance occurs in part because stock returns likely contain information related to the real performance improvement as we find in our previous analyses.

We estimate the main regression model in (1) by replacing ROA with Stock Returns, which is the arithmetic average of 12 previous months' stock returns for a given firm at its fiscal end month, or Risk-adjusted Returns, which is Stock Returns adjusted by market risk using the CAPM beta. Table 7 presents the results. Consistent with our findings for real performance, high ownership by SRI funds with an employee focus also is associated with significantly higher financial performance. Specifically, stock returns and risk-adjusted returns are approximately 19 and 14 basis points higher for those firms with high ownership by such funds, as Columns (1) and (2) show respectively.

6.3 Employee satisfaction

We contend that the channel leading to high firm performance is employee-focused SRI engagement in those firms ensuring that employee-related policies are monitored and implemented by firm management which translates into employee satisfaction, motivation, and thus better performance. We conduct an analysis using the following measures of employee satisfaction. Low Employment Stability Dummy is one if the net change in employment of the firm is negative and zero otherwise. If a firm has a low "employment stability", it indicates that such a company cannot attract (or keep) as many employees as the ones that leave the firm. This translates as an "unpreferable place to work" for employees. We also construct Listed in Fortune's Best Places to Work as a dummy variable that is one if the firm is listed in the Fortune list of "The 100 Best Companies to Work for" and zero otherwise.[15] It is a big achievement to be selected to that list out of thousands of firms; thus, it should be a clear indication of improvement in employee satisfaction. The list is quite dynamic in the sense that there are significant ins/outs to/from that list each year. Thus, such a dynamic nature should provide enough variation across years for us to proxy the changing employee satisfaction among those firms included (excluded) in (from) that list. Further, we also use the actual rankings in the Fortune's list as a separate variable. Lastly, we construct a dynamic measure, i.e. Change in Fortune List Rankings, because the movement of firms in that list can provide a good indication of improvement in labor relations.

In Panel A of Table 8, we first compare the means of these measures for the two groups of firms with high and low ownership by employee-focused SRI funds. We find that Low Employment Stability Dummy is significantly smaller for the high ownership group by about 4.1 percentage points compared to the low ownership group. Also, "Listed in Fortune's Best Places to Work" and "Ranking in Fortune's List" are greater for firms in the high ownership group than those in the low ownership group. The statistically significant differences are about 3.7 and 57 percentage points, respectively. These results provide suggestive evidence that satisfaction is much higher for companies with higher SRI ownership. We note that our sample period includes the financial crisis period when many firms had

[15] The net changes in employment for Low Employment Stability Dummy are from the number of employees in Compustat. We hand-collect the data for Listed in Fortune's Best Places to Work from the Fortune website at https://fortune.com/best-companies/. We merge the data to firms in our sample manually using their names.

Table 6 SRI Fund Ownership and Shareholder Proposals and Advocacy

Panel A: Descriptive statistics for shareholder proposals and advocacy

Employee-focused SRI fund Ownership:	Mean High Ownership = 1	Mean High Ownership = 0	Mean Difference	*t*-statistic
Shareholder Proposals	1.287	0.205	1.082***	89.68
Employee-related Proposals	0.733	0.134	0.598***	71.09
Shareholder Proposals & Advocacy	2.752	0.386	2.366***	127.83
Observations	3951	21,000		

Panel B: Regression of ROA on shareholder proposals and advocacy

	First Stage Regressions			Second Stage Regressions		
	Shareholder Proposals	Employee-related Proposals	Shareholder Proposals & Advocacy	Return on Assets		
	(1)	(2)	(3)	(4)	(5)	(6)
High Ownership	0.817***	0.444***	1.668***			
	(28.12)	(25.26)	(32.44)			
Shareholder Proposals				0.0199***		
(predicted)				(6.22)		
Employee-related					0.0366***	
Proposals (predicted)					(6.20)	
Shareholder Proposals &						0.00972***
Advocacy (predicted)						(6.19)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Observations	23,001	23,001	23,001	23,001	23,001	23,001
Adjusted R^2	0.469	0.388	0.573	0.303	0.303	0.303
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year

The table presents results of the 2SLS regressions of firm performance measured by ROA on the number of all shareholder proposals, the number of employee-related proposals, and advocacy activities. SRI funds submit shareholder proposals to be discussed and approved in firms' board meetings. Those proposals can be on various topics based on the SRI funds' focus. Advocacy refers to SRI mutual funds filing or co-filing shareholder resolutions and engaging in private dialogue on various CSR issues. Panel A reports the mean-difference test results for shareholder proposals and advocacy between firms with and without high ownership by SRI funds with an employee focus. Ownership is the aggregate ownership of SRI funds with an employee focus in a given firm in a given year. High Ownership is a dummy variable that equals one if Ownership of a given firm in a given year is greater than the sample median, and zero otherwise. Panel B reports the two stage regressions of firm performance on the predicted value of shareholder proposals obtained from the first stage regression of shareholder proposals on High Ownership. The same firm control variables as in Table 4 are included in both stages. Variable definitions are available in Appendix Table 10. Observations are at the firm-year level. Three-digit SIC code industry fixed effects and year fixed effects are included. *t*-statistics (in parentheses) are robust and adjusted for clustering within firm. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively

to lay off their employees regardless of employee satisfaction. Thus, we repeat the analysis after excluding the financial crisis period and find robust results.

In Panel B of Table 8, we present regression results for employee satisfaction. We consider regression specifications in Table 4 and replace the dependent variable with the three measures of employee satisfaction. We use logit regressions instead (except for the variable "Change in Fortune List Rankings") as the dependent variables are indicators. The first three Columns are for the whole sample period, and the last three Columns use a sample that excludes the financial crisis period. In Columns (1) and (4), we find that the coefficient estimates for High Ownership are negative and statistically significant at the 1% level. These results suggest that firms with high ownership by employee-focused SRI funds are less likely to experience employee-related instabilities. The results in Columns (2) and (5) show that firms are more likely to be listed as a "Best Workplace" by Fortune in the following year when SRI funds with an employee focus have higher ownership in those firms in a given year. Lastly, the findings in Columns (3) and (6) indicate that firms improve their ratings in Fortune's list as employee-focused SRI funds invest more in those firms and have a higher stake in them.

Overall, the results in this section suggest that high employee-focused SRI fund ownership is positively associated with employee satisfaction, consistent with the view that the engagement by those SRI funds with more ownership (as indicated in previous analyses in Table 6) improves firm performance by motivating employees.

6.4 Subsample analyses

In this section, we run subsample tests that examine the differential effects of employee-focused SRI funds' ownership on firm performance. First, we consider human-capital intensity. We expect firms that are more human-capital intensive to show stronger effects. To classify human-capital intense firms, we follow Ertugrul (2013) and Ghaly et al. (2015). Ertugrul (2013) defines human-capital-intensive industries as high-tech (computers, software, and electronic equipment and services), healthcare (medical equipment and pharmaceuticals), and telecommunication industries based on the Fama–French 10 industry classifications. Ghaly et al. (2015) define human-capital-intensive firms as firms with above-median R&D expenditure to total sales.

Panel A in Table 9 presents the results. The interaction term between High Ownership and Human-capital Intensity is associated significantly and positively with ROA in both Columns (1) and (2) of Panel A, regardless of which definition of human-capital intensity is used.[16] These results indicate that higher performance related to greater ownership by employee-focused SRI funds is present particularly in firms that rely on more skilled workers. Firms that are highly human-capital intensive show 2.88% higher ROA than firms that are less human-capital intensive when employee-focused SRI funds have greater stakes in those firms. The magnitude of the effect for the highly human-capital intensive firms is approximately 1.8-fold greater than the magnitude of the effect for all firms in Column (3) of Table 4.

Second, we consider different industry sectors in Panel B. We classify seven industry groups using the Fama–French 10 industry classifications that include Durable/non-durable consumer goods, Manufacturing, Energy (oil, gas, and coal extraction and products), High-tech (computers, software, and electronic equipment), Telecom (telephone and television transmission) and Healthcare (medical equipment and drugs), and others (all remaining

[16] The variable of Human-capital Intensity alone in Column (1) is subsumed by the industry fixed effects as human-capital-intensive industries in Ertugrul (2013) are based on Fama–French 10 industry classifications using three-digit SIC code.

Table 7 Alternative Firm Performance Measures

	Stock Returns (%)	Risk-adjusted Returns (%)
	(1)	(2)
High ownership	0.191***	0.138**
	(3.26)	(2.27)
Log(MV Assets)	−0.359***	−0.281***
	(−17.86)	(−12.90)
Log(Firm Age)	−0.0221	−0.0249
	(−0.63)	(−0.68)
M/B	0.0385*	0.113***
	(1.67)	(4.84)
Leverage	1.390***	0.917***
	(8.59)	(6.08)
CAPX/Sales	−0.532***	−0.658***
	(−3.04)	(−3.98)
R&D/Sales	0.0849**	0.0746**
	(2.35)	(1.96)
Cash/Assets	−0.352*	−0.724***
	(−1.94)	(−3.89)
TNIC Compete	−0.448	−0.286
	(−0.52)	(−0.34)
Observations	21,944	21,944
Adjusted R^2	0.169	0.062
Fixed Effects	Ind, Year	Ind, Year

The table presents results of the regressions of alternative measures of firm performance on employee-focused SRI funds' ownership. We consider Stock Returns (%) and Risk-adjusted Returns (%) as alternative measures of firm performance, respectively. Ownership is the aggregate ownership of SRI funds with an employee focus in a given firm in a given year. High Ownership is a dummy variable that equals one if Ownership of a given firm in a given year is greater than the sample median, and zero otherwise. Variable definitions are available in Appendix Table A.1. Observations are at the firm-year level. All control variables are lagged one year. Three-digit SIC code industry fixed effects and year fixed effects are included. *t*-statistics (in parentheses) are robust and adjusted for clustering within firm. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively

industries such as mines, construction, transportation, hotels, and entertainment). We combine the group with the fewest observations, i.e. Healthcare, with Telecom sector, following Ertugrul (2013). The financial sector is excluded by the basic screens during our sample selection procedure. We then repeat the main regression analysis for each of these industry groups. Among the seven industry groups, we find the effect of High Ownership is greatest for Telecom & Healthcare and High-tech sectors, consistent with the result in Column (1) of Panel A. Consumer goods and Manufacturing sectors follow. We observe a weaker effect for Shops and no effect for Energy and other sectors. When firms in industries that rely heavily on human capital (e.g., high-tech) or labor (e.g., manufacturing) are influenced by SRI funds committed to good employee relations, employee work performance is likely to improve and, concomitantly, so is firm performance.

Table 8 Employee-focused SRI Fund Ownership and Employee Satisfaction

Panel A: Univariate Analyses

	Employee-focused SRI fund Ownership:		
	High Ownership = 1	High Ownership = 0	Mean Difference
Full Sample Period:			
Low Employment Stability Dummy	0.2720	0.3129	−0.0409***
Listed in Fortune's Best Places to Work	0.0446	0.0080	0.0366***
Ranking in Fortune's List	0.7874	0.2406	0.5468***
Excluding the financial crisis:			
Low Employment Stability Dummy	0.2531	0.2887	−0.0356***
Listed in Fortune's Best Places to Work	0.0427	0.0084	0.0343***
Ranking in Fortune's List	0.8784	0.2772	0.6012***

Panel B: Regression Analyses

	Low Employment Stability	Listed in Fortune	Change in Fortune List Rankings	Low Employment Stability	Listed in Fortune	Change in Fortune List Rankings
	(1)	(2)	(3)	(4)	(5)	(6)
	Full sample period			Excluding the financial crisis		
High Ownership	−0.177***	0.646***	1.508***	−0.185***	0.645**	1.189**
	(−3.01)	(2.62)	(2.65)	(−2.92)	(2.16)	(1.99)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Observations	18,660	23,001	23,001	15,752	19,861	19,861
Pseudo R^2	0.103	0.344		0.086	0.334	
Adjusted R^2			0.080			0.078
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year

The table examines employment stability and employee satisfaction for full sample period and excluding the financial crisis, separately. Panel A reports the mean-difference test results for employment stability and employee satisfaction measured by Low Employment Stability Dummy, Listed in Fortune's Best Places to Work, and Ranking in Fortune's List between firms with and without high ownership by SRI funds with an employee focus. Ownership is the aggregate ownership of SRI funds with an employee focus in a given firm in a given year. High Ownership is a dummy variable that equals one if Ownership of a given firm in a given year is greater than the sample median, and zero otherwise. Low Employment Stability Dummy is one if the net change in employment of the firm is negative and zero otherwise. Listed in Fortune's Best Places to Work is a dummy variable that is one if the firm is listed in the Fortune list of "The 100 Best Companies to Work for" and zero otherwise. Ranking in Fortune's List corresponds the reverse ranking, so that top (bottom) ranked firm has a value of 100 (1), and zero is assigned for not-listed firms. Panel B reports the regressions of Low Employment Stability Dummy, Listed in Fortune's Best Places to Work, and Change in Fortune List Rankings on High Ownership. The same firm control variables as in Table 4 are included. High Ownership and all other control variables are lagged one year. Variable definitions are available in Appendix Table 10. Observations are at the firm-year level. Three-digit SIC code industry fixed effects and year fixed effects are included. *t*-statistics (in parentheses) are robust and adjusted for clustering within firm. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively

Table 9 Employee-focused SRI Ownership and Firm Performance – Subsample Analyses

Panel A: Human-capital intensive firms

	Return on Assets	
	(1)	(2)
Human-capital intensity measure:	Ertugrul (2013)	Ghaly et al. (2015)
High Ownership x Human-capital Intensity	0.0288***	0.0227***
	(5.24)	(4.54)
High Ownership	0.00489*	0.00448
	(1.81)	(1.41)
Human-capital Intensity	N/A	−0.0268***
	N/A	(−5.84)
Control Variables	Yes	Yes
Observations	23,001	23,001
Adjusted R^2	0.304	0.305
Fixed Effects	Ind, Year	Ind, Year

Panel B: Industry groups

	Return on Assets						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
FF-10 industries:	1 and 2	3	4	5	6 and 8	7	10
	Consumer Goods	Manufacturing	Energy	High-tech	Telecom & Healthcare	Shops	Others
High Ownership	0.0148***	0.0100**	0.0116	0.0179***	0.0215**	0.00982***	-0.00189
	(3.11)	(2.29)	(1.23)	(3.07)	(2.33)	(2.91)	(-0.42)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2182	3902	1147	5455	3778	3070	3467
Adjusted R^2	0.342	0.306	0.276	0.214	0.405	0.379	0.312
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year

The table presents results of the regressions of firm performance measured by ROA on employee-focused SRI funds' ownership. We consider two sets of subsample analyses by human-capital intensity in Panel A and by industry groups in Panel B. To classify human-capital intense firms in Panel A, we follow Ertugrul (2013) or Ghaly et al. (2015). Ertugrul (2013) defines human-capital-intensive industries to comprise high-tech (computers, software, and electronic equipment and services), healthcare (medical equipment and pharmaceuticals), and telecommunication industries based on the Fama–French 10 industry classifications. Ghaly et al. (2015) define human-capital-intensive firms as firms with above-median R&D expenditure to total sales. In Panel B, we consider seven industry sectors based on Fama–French 10 industry classifications. To conserve space, we reclassify them into seven broader groups. We exclude regulated utility sector (Fama–French industry 8) in our basic screening procedure. Ownership is the aggregate ownership of SRI funds with an employee focus in a given firm in a given year. High Ownership is a dummy variable that equals one if Ownership of a given firm in a given year is greater than the sample median, and zero otherwise. The same firm control variables as in Table 4 are included. Variable definitions are available in Appendix Table 10. Observations are at the firm-year level. Three-digit SIC code industry fixed effects and year fixed effects are included. *t*-statistics (in parentheses) are robust and adjusted for clustering within firm. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively

In unreported results, we also consider subsample analyses based on product market competition and the 2008–2010 financial crisis. We find similar effects for these subgroups. This implies that the positive influence on firm performance from greater SRI funds' ownership, particularly those sensitive to good employee relations, persists regardless of the degree of product market competition and the financial crisis. Thus, it is worth noting that investing in good employee relations can help improve firm performance under severe competition and also in financially difficult times.

7 General discussion and conclusion

This paper explores the association between SRI funds and firm performance. We find that firms perform better when they are influenced by SRI funds with a special focus on good employee relations through their greater ownership of the firms. This positive link between firm real performance and the ownership by employee-focused SRI funds supports the good governance view that employee CSR is consistent with value-maximizing corporate governance practices for all stakeholder value. We report a negative and insignificant association between firm performance and ownership by funds that are focused on other CSR areas. A possible explanation could be that a strong influence on a firm from non-employee-focused funds might hurt the firm's employee motivation. When employees believe that their company invests more in other CSR areas, such as the environment or the governance than employee-related areas, this can negatively influence employee motivation, and hence, firm performance. Our study differs from previous studies in the literature by showing that employee-focused SRI funds' influence is necessary to exert a sufficient effect on firm performance. This relation is likely causal, based on our analyses using multiple instrumental variable regressions.

As an economic channel that can explain our results, we provide evidence that employee-focused SRI funds are more involved in firms through shareholder proposals and advocacy, especially those related to employee relations issues when they have higher ownership in those firms. Through shareholder advocacy, proposals, and monitoring, these funds engage more in firms' corporate labor policies. Such commitment by employee-focused SRI funds can help ensure enhanced employee rights and improved working conditions within the firm, which eventually motivate employees to work more efficiently and thus perform better. We confirm that such shareholder participation is associated directly with higher firm performance. Further, we show that our results are not driven by the activist fund effects and are particularly stronger for human-capital intensive industries, supporting the idea of higher employee motivation and satisfaction through higher ownership by engaged SRI funds with a labor relation focus.

Our paper adds to the literature that examines the link between mutual funds and firm performance by suggesting a unique channel through which firm performance is affected, i.e., the influence of institutional investors from SRI mutual funds. This study may provide useful guidance for SRI mutual funds and corporate managers by showing how particular firm practices related to labor relations can be valuable.

Appendix

See Table 10

Table 10 Variable Definitions

Employee KLD	The number of KLD Strengths (max 12) minus the number of KLD Concerns (max 7) in Employee Relations and Human Rights areas
Ownership	The sum of ownership of SRI funds with an employee focus or non-employee focus in a given firm
High Ownership	A dummy variable that equals one if Ownership of a given firm in a given year is greater than the sample median, and zero otherwise
Ownership Q_1	A dummy variable that equals one if Ownership of a given firm in a given year is in the lowest quintile, and zero otherwise
Ownership Q_2	A dummy variable that equals one if Ownership of a given firm in a given year is in the second lowest quintile, and zero otherwise
Ownership Q_3	A dummy variable that equals one if Ownership of a given firm in a given year is in the middle quintile, and zero otherwise
Ownership Q_4	A dummy variable that equals one if Ownership of a given firm in a given year is in the second highest quintile, and zero otherwise
Ownership Q_5	A dummy variable that equals one if Ownership of a given firm in a given year is in the highest quintile, and zero otherwise
Return on Assets	The ratio of earnings before interest and taxes (EBIT) over total assets
Stock Returns	The average 12 previous months' stock returns for a given firm at its fiscal end month
Risk-adjusted Returns	The market risk adjusted returns using the CAPM beta of 12 previous months for a given firm at its fiscal year end month
Log(MV Assets)	The natural logarithm of the market value of total assets (market value of common equity plus book value of preferred stock, long-term and short-term debt, and minority interest)
Log(Firm Age)	The natural logarithm of one plus firm age based on first appearance in Compustat
M/B	The Market-to-Book ratio (common shares outstanding * closing price/total assets)
Leverage	This is the ratio of the sum of debt in current liabilities and long-term debt to total assets
CAPX/Sales	The ratio of capital expenditures to sales
R&D/Sales	The ratio of R&D expenditures to sales
Cash/Assets	The ratio of cash to total assets
TNIC Compete	Hoberg and Phillips' (2010) TNIC competition measure for a given firm in a given year
Fund Size ($MM)	The annual average of the fund's monthly total net asset value under management in million dollars
Fund Return	A fund's annual average of percentage monthly return. Monthly return is calculated by dividing the difference in net asset value of the fund between the current month and last month, by the net asset value of the last month
Constituency Statute Funds	The fraction of employee-focused SRI funds incorporated in the states with constituency statutes to the total number of employee-focused SRI funds that invested in a given firm in a given year. Online Appendix Table OA.9 provides the list of the U.S. states with state-level constituency statutes
SRI Inflow (%)	The sum of $(TNA_{(i,t)}–(TNA_{(i,t-1)})/TNA_{(i,t-1)}$, where $TNA_{(i,t)}$ is total net assets of an SRI fund *i* invested in that firm *j* in year *t*, as in Jin et al. (2020)
MRating	Following Heath et al. (2023), we use the increase in Morningstar ratings. Particularly, MRating is a dummy that is equal to one if Morningstar rating for that fund increases from year *t-1* to year *t,* and zero otherwise

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References

Agrawal AK, Matsa DA (2013) Labor unemployment risk and corporate financing decisions. J Financ Econ 108:449–470

Akerlof G (1982) Labor contracts as partial gift exchange. Q J Econ 97(4):543–569

Albuquerque R, Zhang C, Koskinen Y (2019) Corporate social responsibility and firm risk: theory and empirical evidence. Manage Sci 65(10):4451–4949

Bauman CW, Skitka LJ (2012) Corporate social responsibility as a source of employee satisfaction. Res Organ Behav 32:63–86

Berk J. and van Binsbergen JH (2021) The impact of impact investing. *Stanford University Graduate School of Business Research Paper*. Available at SSRN: https://ssrn.com/abstract=39 09166

Bird R, Hall AD, Momentè F, Reggiani F (2007) What corporate social responsibility activities are valued by the market? J Bus Ethics 76:189–206

Ceccarelli M, Ramelli S, Wagner AF (2024) Low carbon mutual funds. Rev Financ 28:45–74

Chen T, Dong H, Lin C (2020) Institutional shareholders and corporate social responsibility. J Financ Econ 135:483–504

Cochran PL, Wood RA (1984) Corporate social responsibility and financial performance. Acad Manag J 27:42–56

Cortez MC, Silva F, Areal N (2009) The performance of European socially responsible funds. J Bus Ethics 87:573–588

Dikolli SS, Frank MM, Guo MZ, Lynch LJ (2022) Walk the talk: ESG mutual fund voting on shareholder proposals. Rev Acc Stud 27:864–896

Drucker PF (1976) The coming rediscovery of scientific management: Frederick Winslow Taylor may prove a more useful prophet to our times than we yet recognize. Conf Board Record 13(6):23–27

Durán-Santomil P, Otero-González L, Correia-Domingues RH, Reboredo JC (2019) Does sustainability score impact mutual fund performance? Sustainability 11:2972

Dyck A, Lins KV, Roth L, Wagner HF (2019) Do institutional investors transplant social norms? International evidence on corporate social responsibility. J Financ Econ 131:693–714

Edmans A (2009) Blockholder trading, market efficiency, and managerial myopia. J Financ 64:2481–2513

Edmans A (2011) Does the stock market fully value intangibles? Employee satisfaction and equity prices. J Financ Econ 101:621–640

Edmans A (2012) The link between job satisfaction and firm value, with implications for corporate social responsibility. Acad Manag Perspect 26(4):1–19

Edmans A, Goldstein I, Jiang W (2012) The real effects of financial markets: the impact of prices on takeovers. J Financ 67:933–971

Edmans A, Levit D, and Schneemeier J (2022) Socially responsible divestment. *European Corporate Governance Institute–Finance Working Paper No. 823*

Edmans A, Li L, Zhang C (2023) Employee satisfaction, labor market flexibility, and stock returns around the world. Manage Sci. https://doi.org/10.1287/mnsc.2023.4889

Edmans A, Manso G (2010) Governance through trading and intervention: A theory of multiple blockholders. Rev Financ Stud 24:2395–2428

Ertugrul M (2013) Employee-friendly acquirers and acquisition performance. J Financ Res 36(3):347–370
Fatemi A, Fooladi I, Zhao Y, Ma Z (2024) On the superior performance of SRI funds. Int Rev Econ Financ 93:567–581
Flammer C (2015) Does corporate social responsibility lead to superior financial performance? A regression discontinuity approach. Manage Sci 61(11):2549–2568
Flammer C, Kacperczyk A (2015) The impact of stakeholder orientation on innovation: evidence from a natural experiment. Manage Sci 62(7):1982–2001
Geczy C, Jeffers JS, Musto DK, Tucker AM (2015) Institutional investing when shareholders are not supreme. Harv Bus Rev 5:73
Geczy C, Stambaugh RF, Levin D (2021) Investing in Socially Responsible Mutual Funds. Rev Asset Pric Stud 11:309–351
Ghaly M, Dang VA, Stathopoulos K (2015) Cash holdings and employee welfare. J Corp Finan 33:53–70
Gibson R, Krueger P, Mitali SF (2021) The sustainability footprint of institutional investors: ESG driven price pressure and performance. *Working paper*
Global Sustainable Investment Review (2020) https://www.gsi-alliance.org/wp-content/uploads/2021/08/GSIR-20201.pdf
Glossner S (2019) Investor horizons, long-term blockholders, and corporate social responsibility. J Bank Financ 103:78–97
Hawn O, Ioannou I (2016) Mind the gap: the interplay between external and internal actions in the case of corporate social responsibility. Strateg Manag J 37:2569–2588
Heath D, Macciochhi D, Michaely R, Ringgenberg M (2023) Does socially responsible investing change firm behavior? Rev Financ 27:2057–2083. https://doi.org/10.1093/rof/rfad002
Hillman AJ, Keim GD (2001) Shareholder value, stakeholder management, and social issues: what's the bottom line? Strateg Manag J 22:125–139
Hoberg G, Maksimovic V (2015) Redefining financial constraints: a text-based analysis. Rev Financ Stud 28:1312–1352
Hoberg G, Phillips G (2010) Product market synergies and competition in mergers and acquisitions: a text-based analysis. Rev Financ Stud 23:3773–3811
Hornuf L, Yüksel G (2024) The performance of socially responsible investments: a meta-analysis. Eur Financ Manag 30:1012–1061
Jaggia PB, Thakor AV (1994) Firm-specific human capital and optimal capital structure. Int Econ Rev 35:283–308
Jin L, Taffler R, Eshraghi A, Tosun OK (2020) Fund manager conviction and investment performance. Int Rev Financ Anal 71:101550
Joliet R, Titova Y (2018) Equity SRI funds vacillate between ethics and money: an analysis of the funds' stock holding decisions. J Bank Financ 97:70–86
King AA, Lenox MJ, Terlaak A (2005) The strategic use of decentralized institutions: exploring certification with the ISO 14001 management standard. Acad Manag J 48:1091–1106
Kostovetsky L, Warner JB (2020) Measuring innovation and product differentiation: evidence from mutual funds. J Financ 75:779–823
Krueger P, Sautner Z, Starks LT (2020) The importance of climate risks for institutional investors. Rev Financ Stud 33:1067–1111
Loughran T, McDonald B (2011) When is a liability not a liability? Textual analysis, dictionaries, and 10-Ks. J Financ 66:35–65
Ma W, Wang X, Wang Y, Wu G (2021) Measuring misleading information in IPO prospectuses. Rev Quant Financ Acc 57:819–843
McGuire JB, Sundgren A, Schneeweis T (1988) Corporate social responsibility and firm financial performance. Acad Manag J 31:854–872
Mittelbach-Hörmanseder S, Hummel K, Rammerstorfer M (2021) The information content of corporate social responsibility disclosure in Europe: an institutional perspective. Eur Account Rev 30:309–348
Orts EW (1992) Beyond shareholders: interpreting corporate constituency statutes. Geo Wash l Rev 61:14
Parket R, Eilbirt H (1975) Social responsibility: the underlying factors. Bus Horiz 18:5–10
Renneboog L, Ter Horst J, Zhang C (2008a) The price of ethics and stakeholder governance: the performance of socially responsible mutual funds. J Corp Finan 14:302–322
Renneboog L, Ter Horst J, Zhang C (2008b) Socially responsible investments: institutional aspects, performance, and investor behavior. J Bank Financ 32:1732–1742
Renneboog L, Ter Horst J, Zhang C (2011) Is ethical money financially smart? Non-financial attributes and money flows of socially responsible investment funds. J Financ Intermed 20:562–588
Revelli C, Viviani J (2015) Financial performance of socially responsible investing (SRI): what have we learned? A meta analysis. Bus Eth: A Eur Rev 24:158–185

Reuter J, Zitzewitz E (2021) How much does size erode mutual fund performance? A regression discontinuity approach. Review of Finance 25:1395–1432
Shapiro C, Stiglitz J (1984) Equilibrium unemployment as a worker discipline device. Am Econ Rev 74:433–444
Taylor FW (1911) The principles of scientific management. Harper Brothers, New York
Tosun OK (2017) Is corporate social responsibility sufficient enough to explain the investment by socially responsible funds? Rev Quant Financ Acc 49:697–726
Wardlaw M (2020) Measuring mutual fund flow pressure as shock to stock returns. J Financ 75(6):3221–3243
Zingales L (2000) In search of new foundations. J Financ 55:1623–1653