Altruism or Self-Interest?
ESG and Participation in Employee Share Plans

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July 8, 2022

Abstract

We ask how the ESG performance of firms affects the asset allocation of a large sample of French employees between their employer's stock and alternative investments in firm-sponsored savings plans. After ESG incidents, employees are less likely to invest and they invest smaller amounts in their company's stock. Incidents in the "Social" category, especially those related to working conditions and local incidents, are the ones that affect these investment decisions the most. Pecuniary motives are unlikely to explain this finding. Overall, our results suggest that ESG policies directly impacting the well-being of employees affect employee satisfaction and loyalty the most.

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The data used to carry out this study come from the processing of record keeping and account keeping of AMUNDI ESR employee and pension savings accounts. These data have been analyzed anonymously for scientific, statistical or historical research purposes. We are grateful to Pat Akey, Vicente Bermejo, Johan Hombert, Corinne Laboureix, Catherine Leroy, Raphael Mimran and participants in the 2022 CUNEF Finance conference for useful comments and to Sébastien Cadot and Arnaud Delavoet at Amundi ESR for help in the data gathering process. Derrien acknowledges financial support from the Investissements d'Avenir Labex (ANR-11-IDEX-0003/Labex Ecodec/ANR-11-LABX-0047).

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1. Introduction

Employee share ownership is a motivation tool and a savings investment vehicle for employees, as well as a potential source of financing for businesses. It is commonly encouraged by companies through discounts offered to employees who participate in Employee Stock Ownership Plans (ESOPs), and by governments through tax breaks and other incentive mechanisms (see Kaarsemaker et al., 2010 for a review). Employees are eager to engage in such investment in their own company, despite the underdiversification this implies for an employee who is adding financial risk to the labor risk she is already facing (e.g., Poterba, 2003; Meulbroek, 2005; Benartzi et al., 2007; Lee et al., 2008). As a result, employee share ownership is widespread. For example, in the US, employees own about 8% of the stocks of the companies they work for,[1] and recent initiatives aim at encouraging further employee ownership.[2]

In this paper, we ask whether the performance of a company in Environmental, Social, and Governance-related (ESG) dimensions affects the willingness of its employees to invest in its stock. We hypothesize that an employee's decision to buy the stock of her employer reflects her satisfaction with the policies of the firm she works for. The main reason is that employee satisfaction increases the emotional ties between the firm and its employees, thereby increasing the loyalty of employees (Cohen, 2009). As a consequence, satisfied employees are more willing to be involved in the funding of their employer and to share its financial performance through stock ownership. Our hypothesis is that satisfied employees are thus more prone to invest in their employers' stock, even if they do not expect to generate greater returns from this investment than from alternative investment opportunities.

[1] Source: National Center for Employee Ownership.
[2] For example, the Promotion of Private Employee Act has been introduced in 2021 to facilitate the adoption of ESOPs, in particular in small businesses.

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The three dimensions of ESG cover a broad range of policies, which can have an impact on employee satisfaction in several ways. First, they include policies that have broad consequences for the firm's environment and society at large. This is the case for policies aimed at reducing pollution in remote locations or at promoting human rights in countries where they are not guaranteed by regulators. Such policies should satisfy *altruistic* employees, even if those policies do not affect them *directly*. Therefore, all else equal, these policies should increase altruistic employees' willingness to buy the stock of their employer. Such an investment reflects the value alignment of altruistic employees with their employer, the same way that "outside" investors are more likely to invest in a firm with which they share the values (Riedl and Smeets, 2017; Bauer et al., 2021).

Employees can also have a more self-interested view and be more satisfied when their employer adopt policies that affect them *directly* in their everyday life. One example is policies providing employees with better working conditions, another dimension of ESG reflected in the social (S) pillar. For a self-interested employee, satisfaction and thus investment in her employer's stock should be more sensitive to policies with a local impact on employees' conditions. Intuitively, self-interested employees should put more weight on the social (S) dimension of their employer's ESG policies when deciding whether to invest in its stock, while for an altruistic employee the environmental (E) dimension should be the main driver.

ESG scores capture externalities produced by firms. Some of these externalities affect the firms' employees directly, while other externalities affect other stakeholders of the firm, or even the world at large. Our empirical strategy is to identify which dimensions of ESG matter in employees' investment decisions to understand which firm policies affect the satisfaction of employees. In short, the satisfaction of an "altruistic" employee vis-à-vis her employer, and thus her choice to invest in the firm's stock, should depend more on firm policies aimed at doing

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good, e.g., by protecting the environment. On the other hand, a "self-interested" employee should favor policies that generate direct personal benefits for the employee herself. In our context, "altruism" and "self-interest" are not mutually exclusive: The satisfaction of employees can depend on policies that affect several dimensions of ESG.

To explore the link between employees' investment decisions and the ESG practices of their employers, we use detailed panel data on French employees enrolled in firm-sponsored savings plans. The employees can invest their variable compensation and voluntary contributions into such plans, which represent medium to long-term saving options. The assets on the plan can be invested in a menu of funds provided by the employer. Importantly for our study, companies can issue employee-shareholder funds, i.e., funds fully invested in the company stock, and only offered to employees through their savings plan. The data come from Amundi Asset Management, the leading asset manager for employee savings plans in France, with a 45.5% market share and €66.8 billion in employee savings plans assets. We observe all the investment choices made by French firms' employees in the savings plans managed by Amundi from 2015 to 2018. For more than 380,000 employees, we observe the amount invested in the plan each month, as well as the decision to invest part or all of this amount into each company's stock fund issued by the employer.

To measure the ESG performance of firms, we use ESG incidents recorded in the RepRisk database. RepRisk screens media, stakeholders, and third-party sources for news related to firms' ESG practices. It provides daily counts of negative news at the company level, classified in distinct ESG issue categories. We use RepRisk negative news as a proxy for negative ESG practices and investigate how it relates to investment decisions of employees when the firm they work for offers them the possibility to invest in its own shares.

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We focus our analysis on the months in which firms issue employee-shareholder funds and we investigate how recent ESG incidents involving the issuing firm, which we interpret as negative changes to the firm's ESG policies and reputation, affect employee participation. We find that employees are significantly less likely to invest in their firm's stock following an ESG incident in which the firm is involved. Our estimates suggest that, controlling for firm-level characteristics as well as employee and year-month fixed effects, the likelihood of an employee investing in her company stock ownership plan drops by 18 pp (46% relative to the sample mean) when the number of ESG incidents of the company in the previous year doubles. At the intensive margin, such a doubling of negative ESG incidents in the past year leads to an average reduction in investment in the employer stock of €377. This is economically significant and large relative to the average investment in the employer stock (about €500).

Next, we explore separately the link between employee investment and each of the three pillars of ESG performance, namely, E (Environment), S (Social), and G (Governance). We find that only incidents of the S (social) type affect the decision of employees to buy stock of the firm they work for. Among incidents belonging to the S category, those related to working conditions affect employees' investment the most.[3] We also find that French employees' investment responds more to "Social" events that happen in France than abroad. On the contrary, employees' investment decisions do not respond to G (governance)-related events, and, in some specifications, they even respond positively to E (environment)-related events. In other words, employees are *more* likely to buy stock of their firm when it is involved in environmental controversies. In further tests, we find that this result is driven by employees at firms in polluting sectors, whose loyalty vis-à-vis their employers increases following environmental incidents. This is in line with the view that employees self-select into industries

[3] These incidents can cover various topics such as abnormal work pace and low remuneration, spying of employees, moral harassment, employees' suicide, discrimination of workers belonging to trade unions, etc.

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based on their individual preferences. The heterogeneous effects across different categories of incidents also suggest that our results do not simply reflect a "salience" effect whereby employees react more to local news. They don't, except for local news in the S category.

Our interpretation of these findings is that employees' decisions are driven mostly by ESG practices that directly affect their everyday life. In other words, personal benefits are key determinants of employee satisfaction and loyalty vis-à-vis their employer. This is in line with the "self-interest" hypothesis, stating that a large number of economic behaviors but also economic opinions may be self-serving, i.e., reflect the personal interest of the individuals (Landier et al., 2008). On the contrary, the satisfaction and loyalty of employees is unrelated to the environmental performance of their companies. Consistent with this view, we also find that employees who have a greater propensity to invest in Socially Responsible Investment (SRI) funds proposed by the fund manager, or younger employees, features that are usually associated with a greater environment consciousness, are only weakly more sensitive to ESG incidents. These results rule out the possibility that altruism is driving the link between the firm's ESG policy and employees' investment decisions.

An alternative explanation of our findings is that employees anticipate that firms with better ESG performance will outperform in the future (Krüger et al., 2020; Bauer et al., 2021), and are simply more likely to invest in the stock of their employer when its ESG performance is better to take advantage of higher future returns. There are several scenarios under which this investment strategy could be profitable. First, Edmans (2011) shows that employe satisfaction is related to future returns. If, as we hypothesize, ESG performance drives employee satisfaction, then ESG performance and future returns should be related. It can also be the case that better ESG performance is associated with higher future cash flows, which may lead to higher stock returns if investors underreact to this fundamental information (Glossner, 2021;

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Derrien et al., 2022). Or perhaps employees anticipate that good ESG performance will generate an inflow of investment in the company that will in turn increase its stock price (Pastor et al., 2021). We find that the incidents that affect the most employees' participation (i.e., the working conditions at the company) are not associated with worse future stock returns of the firm. This suggests that such pecuniary motives are not explaining the link between employees' investments in their own-company stock and the firm's ESG practices.

This paper relates to several streams of literature. First, it contributes to the literature studying the link between firms' labor force and corporate social responsibility. Cronqvist and Yu (2017) focus on how CEO can shape ESG practices. Koppel and Regner (2014) provide experimental evidence that employees exert more effort when their firms adopt CSR policies. Cen, Qiu and Wang (2021) find that retention rates are lower for firms with poor Corporate Social Responsibility practices.[4] Krüger et al. (2020) find that workers earn about 9% lower wages in firms that operate in more sustainable sectors, because more skilled and younger workers accept lower wages to work in more sustainable firms. Unlike these papers, we use the decision of employees to invest in the stock of their employers, and the amount invested, as indicators of their satisfaction and loyalty vis-à-vis their employer. This setting allows us to observe a series of decisions (to invest or not) over time for each employee, and to control for a rich set of time-varying firm characteristics that are likely to affect employee investment behavior. Our results are informative about the dimensions of ESG that affect employee satisfaction and loyalty, and allow us to understand the preferences of employees. They suggest that, among all the ESG-related investments firms can undertake to generate loyalty among their workforce, those directly related to working conditions may be more efficient than

[4] This can be particularly important for companies that operate in industries in which human capital is a key determinant of performance (Dottling et al., 2018).

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investments directed to broader objectives like the environment or the well-being of the community at large.

Second, this paper adds to the literature on the determinants of employees' participation in stock plans offered by their employers. The drivers that have been previously studied include the past market performance of the firm (Benartzi, 2001; Huberman and Sengmueller, 2004; Choi et al., 2004), the employees' human capital (Agnew, 2006; and Babenko and Sen, 2014) and ambiguity aversion (Dimmock et al., 2016), the number of investment alternatives (Liang and Weisbenner, 2002), and attention-grabbing events (Ouimet and Tate, 2020b). We rule out the possibility that these channels drive our results by including a comprehensive set of control variables, as well as employee and year-month fixed effects. Our contribution is to show that specific aspects of the employer's ESG practices are another important driver.[5] We complement the findings by Ouimet and Tate (2020a) that coworkers' behavior influence employees' decisions to invest in the stock of their own company.

Third, our paper contributes to the literature on the link between ESG and individuals' investment decisions. Survey evidence from the Netherlands (Bauer et al., 2021) suggests that individual investors prefer socially responsible investments. Among those, left-leaning and altruistic investors are more inclined to such preferences (Riedl and Smeets, 2017; Anderson and Robinson, 2020; Brodback, Guenster and Mezger, 2019; Brière and Ramelli, 2021). Riedl and Smeets (2017)'s findings also suggest that social preferences and social signaling explain socially responsible investment decisions, while financial motives play less of a role. Finally, personal life-time experiences also affect investors' demand (Choi et al, 2020; Bianchi et al., 2022). Our results show that for employees, who are directly affected by their firms' policies,

[5] The case of a single French company has been studied in Degeorge et al. (2004), in the context of France Telecom's privatization. French employees are also studied in Aubert et al. (2017). The authors rely on company-level data to study the relationship between employee stock ownership and the cost of capital.

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the results are different from the consensus that emerges from this literature: Employees' personal benefits and their own well-being seem to be the main drivers of their investments in their own-company stock. This result echoes the "ESG home bias" documented by Groen-Xu and Zeume (2021) on the motivations of investors regarding ESG investment.

Fourth, our results add to the literature on the benefits of employee shareholding for firms. Chang and Mayers (1992) suggest that the giving some voting power to managers through employee stock ownership plans can increase firm value. Beatty (1995) finds that employee stock ownership plans provide measurable tax benefits to the employer and Rauh (2006) finds that they are an effective takeover defense. Ginglinger et al. (2001) find that directors elected by employee shareholders increase firm valuation and profitability. Aldatmaz et al. (2018) show that employee turnover falls in the years following large broad-based employee stock option grants. The employees' decisions we study in this paper, if they reflect preferences vis-à-vis corporate policies, suggest that employees care more about their own working conditions than about broader impacts of corporate actions. If employees become more vocal stakeholders (e.g., Reitz et al., 2021), this raises the question of whether their interests are aligned or rather can lead to conflicts with other key stakeholders (Casamatta et al., 2022).

The rest of the paper proceeds as follows. Section 2 reviews the institutional setting. Section 3 presents our dataset. Section 4 lays out our empirical methodology. Section 5 presents our empirical results. Section 6 concludes.

2. Institutional setting

Our paper examines the investment decisions of individual participants in employer-sponsored defined contribution plans in France. These plans are close in their functioning to the

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extensively studied 401(k) system in the USA. The most important types of employee saving programs in France are company savings plans ("Plan d'Epargne Entreprise", or PEE) and retirement savings plans ("Plan d'Epargne pour la Retraite Collectif", or PERCO). In the paper, we refer to both types of plans as savings plans for brevity. The amounts invested are blocked for a fixed retention period (5 years under PEEs and until the retirement age under PERCOs), except for a limited number of circumstances such as marriage, birth of a child or purchase of a home. These savings plans are mandatory for all firms with at least 50 employees.

According to DARES, a French government agency, in 2019, around 51% of French employees had access to at least one form of such saving schemes. Their contributions to the plan originate mostly from variable compensation (profit-sharing programs called "participation", and incentive programs called "intéressement"), but also from employees' voluntary contributions and additional contributions made by the employer (employer match). The plans benefit from a tax advantage to promote savings. In practice, when an employee receives variable compensation, she can either invest it in the plan or opt out and receive it as direct remuneration. In the latter case, the employee must pay regular taxes on the variable remuneration. If the variable remuneration is instead invested in the plan, no taxes are due until the employee withdraws the money from the plan.

French legislation imposes that these saving schemes must offer at least three investment options to allow a minimum level of diversification. Within the menu of funds offered, the firm can decide to propose employer stocks funds (either listed or unlisted), i.e., funds fully invested in the company stock. Employer stock funds are very popular among French companies. In 2018, 3.5% of the capital of French firms was held by employees and 39% of French employees were shareholders of their firm (ERES, 2020; FEAS, 2020). Companies regularly offer new employer stock funds when they issue equity but also when

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they do not raise equity from outside investors. These funds are added to the menu of funds already available to employees. To encourage employee participation, they are typically offered with a discount relative to the price at which the stock trades at the time of the fund creation. The discount can be as large as 30%.

When a participant does not express any preferences regarding the allocation of her variable remuneration, her contributions are automatically invested in a low-risk default option (lifecycle-managed, balanced, fixed-income, or money market funds). Default options have a powerful role in shaping decisions in employee savings plans (Madrian and Shea, 2001). Importantly for our purpose, the default options cannot comprise employer stocks funds. Investment in an employer stock fund is therefore always the result of an active decision.

3. Data

a. Data on employee savings plans

We use administrative data on employee savings plans from Amundi Asset Management, the largest plan provider in France (with a 45.5% market share and €66.8 billion in employee savings plans assets). Our dataset spans 2015 to 2018. We restrict the sample to employees working for companies offering at least one new employer stock fund over our studied period, and whose stock belongs to the French stock market index SBF120 (which contains the 120 largest companies in France based on market capitalization). Some corporations, because of their ownership structure, can offer two different stocks to their employees. We further restrict our sample to companies offering only one stock to their employees. Large corporations typically include many subsidiaries, all of which may offer their employees the possibility to invest in the stock of their parent company. Our sample features

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22 distinct stocks and includes 247 firms (or subsidiaries). Among those 22 stocks, 9 are part of the main CAC40 index for at least part of the sample period. Our sample contains 383,473 distinct employees. The average number of employee-shareholder funds that are issued by each firm over our sample period is 4.8, i.e., slightly more than one issuance per firm each year.

Our anonymized data allow us to observe detailed information on each employee's investment choices, in each of the funds offered by the employer, when a new investment is made in the savings plan. Investments in the plan can occur either because the employee receives some variable remuneration that she invests in the plan, or because she makes a voluntary contribution to the plan. We observe the menu of funds offered to each employee, the amount of new investment, and the precise allocation chosen by the employee. We also observe, for each individual employee, the composition of her savings in the plan and individual characteristics such as age, gender and zip code of residence. We focus on the month in which firms issue employee shareholder funds. Our final data set comprises 1,643,953 employee-month observations.

[Insert Table 1 here.]

Panel A of Table 1 reports summary statistics at the employee-month level. The average employee is about 46 years old and has about €30,000 of total assets invested in the plan considering all investment vehicles. 20% of observations correspond to female employees. On average, 39% of employees invest in the stock of their employer when the latter issues an employee shareholder fund. The average amount invested is close to €500.

b. ESG data

Our firm-level ESG data come from RepRisk, which is a business research provider specializing in producing ESG-related indicators. RepRisk screens printed and online media,

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stakeholders, and third-party sources (including for instance NGOs, government bodies, regulators or think tanks) for controversies related to firms' ESG practices. It provides daily counts of negative news at the company-level, classified in distinct ESG issue categories. We use RepRisk negative news as a proxy for (negative) ESG practices at the firm level. Using ESG news data rather than ESG ratings (or scores) allows us to identify precisely firm-level changes in ESG reputation, whereas ESG scores are slow-moving, and the timing and nature of their changes are imprecise. In addition, using news allows us to avoid the well-documented inconsistency within ESG ratings (e.g., Berg et al., 2019, and Gibson-Brandon et al., 2021).

RepRisk classifies ESG incidents into 28 distinct issues. Environmental issues include for instance news about climate change, pollution, and waste disposal. Social issues include child labor and human rights abuses but also issues related to working conditions like workplace discrimination. Governance issues include for instance executive compensation issues and corruption. One incident can be associated with multiple issues and therefore belong to two or more of the E, S and G categories.

RepRisk provides aggregate information on firms' ESG news in different ways. First, it aggregates news by type for each firm over each month. Second, RepRisk provides a rating based on ESG and business conduct of the company and the country-sector ESG Risk exposure of the company. The RepRisk rating ranges from AAA to D (which we encode from 10 to 0). Finally, using a proprietary algorithm based on past news over the last two years, RepRisk computes an index ranging from 0 to 100 that captures the extent to which a company is exposed to negative ESG news.

We match RepRisk with our savings plan dataset using international securities identification numbers (ISINs). Panel B of Table 1 provides summary statistics for the RepRisk variables used in our analysis at the firm-month level. Variables related to number of news

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correspond to the total number of news over the last 12 month for the company. The average employee works in a firm with a rating of 6 and an index of 20. The number of news over the last 12 month is close to 13 on average. Panel B of Table 1 also shows the distribution of incident types by category. News related to social issues are the most frequent (7.2 per year on average), followed by those related to environment (6.6) and governance (5.1).[6]

c. Firm-level data

Using Refinitiv (ex-Thomson Reuters) Datastream and Diane (provided by of Bureau Van Dijk for French companies), we also collect financial and accounting information for the firms in our sample. At the parent company (i.e., stock) level, we include the number of employees, total assets, market value, stock return and volatility over the last year, Price-to-Earnings ratio, dividend per share and book value per share, all from Refinitiv. At the subsidiary (i.e., firm) level, we include cash, leverage capital expenditures (Capex), R&D expenses, Return on Assets (ROA), net profit margin, labor productivity and sales growth, all data from Diane. We merge these data with the savings plan and RepRisk datasets using ISINs. Panel C of Table 1 provides summary statistics of firm characteristics at the firm-month level. It shows that the average employee in our sample works in a firm whose parent company employs about 30,000 employees and with total assets of about €16 billion.

4. Empirical methodology

The objective of this study is to examine the link between the ESG performance of firms and the willingness of their employees to participate in the stock ownership plans they propose.

[6] The total number of news reported in Table 1 does not correspond to the sum of the numbers of news on the E, S ang G pillars because some news can belong to multiple categories. The same is true for news related to sub-topics withing a given pillar.

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Our main dependent variable of interest is the decision of employee *i* to invest in the stock fund of her employer in month *m*. Our data allow us to observe this decision for each employee in each month between 2015 and 2018. However, we consider only months in which firms issue a new employee-shareholder fund, i.e., a specific fund fully invested in the company stock and only available to employees. Employees can also invest in these funds or withdraw money from them in other months. However, voluntary investments and withdrawals are rare and they often depend on unobserved employee-specific factors. On the contrary, when a firm issues a new fund, it advertizes it widely and each employee has to decide to invest in the fund or not. Consistent with this argument, most investments occur in months in which a new stock fund is created. In our sample, 73% of firm-month observations with movements in stock funds happen in months of new fund creation and 51% of the total amount in stock funds is invested in those months.

The payment of variable compensation is also likely to affect the decision to contribute to one's employer stock fund. When they receive variable compensation, employees must decide where to allocate the funds, existing stock funds being one possible investment vehicle. Although in our data, the creation of new stock funds occasionally coincides with the payment of variable compensation, this is not systematically the case. In our empirical specifications, we do not consider months in which firms pay variable compensation unless they coincide with the creation of a new stock fund because the allocation decision employees have to make when they receive variable compensation differs from the decision to invest or not in a newly offered stock fund. Essentially, an employee who receives variable compensation has to choose between receiving it in cash or investing it in one of the funds offered, one of which being the default fund, which most employees choose. However, we include in our specifications a control dummy variable equal to one in months in which employees receive their variable compensation, to differentiate them from months in which employees have to provide the funds

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to invest in newly created stock funds (possibly from other segments of their employee savings plan).

To measure the ESG performance of firms, we use the data provided by RepRisk, namely, the number of news reflecting incidents that occurred in each of the three categories E, S and G or, in robustness tests, the RepRisk index and the RepRisk rating of companies. We measure the number of ESG incidents in the 12-month period leading to the end of the previous months and we measure the RepRisk rating and the Rating Index at the end of the previous month. Our main regression specification is as follows:

$$Investment_{i,j,m} = \alpha \cdot ESG\ performance_{j,m} + \beta \cdot X_{i,m} + \gamma \cdot Y_{j,m} + \delta_m + \delta_i + \varepsilon,$$

where $Investment_{i,j,m}$ is a dummy variable equal to one if employee i invests in the stock fund created by firm j in month m or the natural logarithm of one plus the amount invested in the fund. $X_{i,m}$ is a set of employee-level controls, containing the age of the employee and the assets invested in the employee savings plan at the end of the previous month. $Y_{i,m}$ is a set of firm-level controls, also measured at the end of the previous month. These controls include standard accounting variables measured at the end of the previous year, the annual stock return and volatility, as well as the numbers of funds and of equity funds the firm offers to its employees. The set of control should capture the standard factors that are known to affect employee's decisions to buy the stock of their employer, like their wealth or the recent performance of the firm they work for.

δ_m and δ_i are year-month and employee fixed effects, respectively. Year-month fixed effects allow us to control for time variations in the propensity of employees to invest in stocks in general. Employee fixed effects allow us to control for unobserved employee characteristics that can be important determinants of investment decisions. They absorb time-invariant

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employee characteristics like gender, which we use in cross-sectional contrasts in some subsequent tests. Employees may appear in the dataset with two different employers, but this is a rare event, and thus we do not include firm (or establishment) fixed effects in our regression specifications. One limitation of our dataset is that we do not observe the discounts offered to employees when are given the possibility to buy stocks of their employers. However, these discounts do not vary over time for a given parent company, so they are absorbed to a large extent by employee fixed effects.

ESG performance$_{j,m}$ is one of the ESG measures provided by RepRisk (number of news, index or rating). These variables can be interpreted in two ways. First, employees can learn new information about their employer when news are reported in the media. This is probably true for ESG news that happen in foreign countries and cover activities that are remote from those of employees (e.g., employees working at the headquarters of a multinational company and learning about a corruption scandal in a foreign country in which the company operates through a subsidiary). Another possibility is that ESG news reflects information or beliefs of employees that the econometrician cannot observe directly. This is very likely to be the case for news related to firm policies or practices that affect employees directly like, for example, news about local working discrimination. Unlike the first situation, such news is likely to reflect a situation that has been occurring for a relatively long period rather than a one-time specific event. For this reason, and because we only consider months in which employers offer new stock funds, which rarely happens more than once a year, we measure our independent variables over the year preceding the month under consideration.

In all specifications, standard errors are clustered at the firm level (the average stock in the sample corresponds to 11 firms or subsidiaries) because investment decisions tend to be correlated across employees working at the same location, who share common characteristics

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and information (Ouimet and Tate, 2020a). However, we ensure that the baseline results are robust to clustering at the stock level in robustness tests.

5. Empirical results

a. ESG performance and employees' investment decisions

In this section, we explore the link between the overall ESG performance of firms and the propensity of their employees to invest in the employee ownership stock funds they propose. The analysis is at the employee-month level. We consider two dependent variables: an indicator variable equal to one if employee *i* invests in the new stock fund offered by her employer in month *m*, and a continuous variable equal to the log of one plus the euro amount the employee invests in the stock fund.

[Insert Table 2 here.]

Table 2 reports the results. Regression (1) shows a significantly negative link between the number of ESG incidents reported in the past year and employees' propensity to invest in their employers' stock fund. In this regression, we include firm- and fund-level controls. The relation between firm performance and investment decisions is mixed: Employees are more likely to invest in the stock plan when their firm is priced at higher P/E multiples, but less likely to invest following better stock performance. In Column (2) of Table 2, we add time-varying employee-level controls (employee fixed effects absorb the time-invariant ones). Employees with more total assets in the plan, which can be correlated with their sophistication, are more prone to invest in their employers' stock. As expected, employees are also more likely to invest when the stock plan is offered in a month in which they receive their variable remuneration. In this regression, the effect of ESG performance on employees' willingness to invest in their

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employer's stock plans is statistically significant and economically large: When the number of ESG incidents reported in the previous 12 months doubles, an employee is 18 percentage points (= ln(2) × 0.263) less likely to invest in her company's stock. This decrease represents 46% of the average probability to invest (0.39, from Table 1).

In columns (3) and (4) of Table 2, we study how the ESG performance of firms influences the intensive margin of investment, i.e., the logarithm of one plus the euro amount that employee *i* invests in the stock fund in month *m*. Again, the link between invested amounts and ESG performance is statistically and economically significant. For example, in Regression (4) of Table 2, which includes the full set of control variables, a doubling of the number of ESG incidents reported in the previous 12 months leads the average employee to decrease her investment by $2^{-2.108} - 1 = 76.8\%$, or about €377 (= 491 × 76.8%).

When we interpret the results above, we assume that the issuance of new stock funds is uncorrelated with the firm's ESG performance. A potential issue with this interpretation is reverse causality. It could be the case that after a series of incidents that affect their public image, firms react by creating new stock funds aimed at increasing the equity participation of employees and their support of the firms' policies. To explore this possibility and understand whether new stock fund offerings are related to the prevalence of ESG incidents, we regress the probability of observing a new stock ownership plan in a given month on firm characteristics and recent ESG ratings or the number of ESG news in the last 12 months. The results appear in Appendix Table 1. They suggest that the probability of observing a new employee ownership plan is independent of the recent ESG performance of the firm, in line with our assumption.

b. Heterogeneity across ESG dimensions

Next, we ask which type of ESG incidents has the greatest impact on an employee's decision to invest in the stock of her company. Employees should be more responsive to

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environment-related (E-type) news if their investment decision reflects their environmental concerns and environment-related policies put in place by the company they work for. Concerns about firm performance or working conditions, on the other hand, would make employees' decisions more sensitive to incidents related to governance (G-type) or social (S-type) issues, respectively. To explore these possibilities, we split news into the three categories E, S and G, and we regress the decision to invest on the logarithm of one plus the number of news of each type separately in columns (1) to (3), and together in column (4), using the same specification as in the previous table.

[Insert Table 3 here.]

Table 3 reports the results. Taken individually, the number of E, S and G incidents in the previous 12 months are all negatively related to employees' propensity to invest, S-type news having the larger economic impact. However, this finding must be interpreted carefully, as many incidents are related to several categories. Thus, a setting that combines news of all types is more likely to reflect accurately the marginal impact of each category of news on employees' allocation decisions. When we consider the three types of news together, in column (4) of the table, the number of incidents related to social issues continues to have a large negative and statistically significant effect on investment decisions. The effect of the number of governance-related incidents is slightly positive but insignificant statistically. In sharp contrast to the result in column (1), the marginal effect of the number of E-type incidents with respect to other incidents becomes positive. Although the effect is modest economically (less than one-third of the effect of the number of S news), it is statistically significant.

A possible explanation for this finding, which is at odds with the evidence on the behavior of outside investors (e.g., Gantchev et al., 2022), is that the negative exposure generated by environmental incidents may at times reinforce the loyalty of employees vis-à-vis

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their employers. This can happen if an employee believes that the presentation of an event in the media paints an unfairly negative image of the firm she works for. To test this possibility, we exploit the selection of employees into sectors, assuming that employees who work for companies that operate in polluting sectors are probably less concerned with environmental issues than employees of companies that operate in "green" industries. Using the SIC classification, we classify mining (including oil and gas), construction, manufacturing, transportation and public utilities as polluting sectors. From Table 1, firm-month observations with firms in these four industries represent about 59% of the overall sample.

In Column (5) of Table 3, we repeat the regression of Column (4) in which we explain the investment decision of employees with the number of incidents in each ESG category, adding the interaction between the *Firm in polluting sector* dummy variable and the number of E incidents to the regression. The coefficient on this interaction is significantly positive, while the coefficient on the number of news in the E category is significantly negative. This confirms that employees who work in industries that pollute less are less likely to invest in the stocks of their companies following environmental scandals, perhaps because these scandals decrease their loyalty vis-à-vis their employers. On the contrary, employees of firms in polluting sectors tend to side with their employers following environmental scandals, which explains the overall positive coefficient on the number of E incidents in the regression of Column (4).

c. Robustness tests

This section presents robustness tests of the baseline results above. First, regressions (1) and (2) in Appendix Table 2 confirm the link between investment decisions and the ESG performance of firms using two different measures of ESG performance, namely, the levels of the RepRisk rating and the RepRisk index, respectively. For example, regression (1) shows that when the rating increases by 1, the likelihood to invest in the company stock increases by 0.136.

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This corresponds to a jump by 0.136 / 0.39 = 35% in the likelihood to invest relative to the sample mean. The standard deviation of the rating being equal to 1.23 (from Table 1), a one-standard deviation increase in the rating leads to an increase by 1.23 × 0.136 = 16.7% in the likelihood to invest (42.9% of the sample mean).

Next, we change the timing of the news we consider, from months t-12 to t-1 to months t-12 to t-4, or months t-12 to t-7, respectively. We do so because company stock plans are often announced several months before their implementation and employees generally have to make their investment decisions before the dates at which investments are actually made. By focusing on news in months t-12 to t-4 or t-12 to t-7, we purge the main explanatory variable from news that may not be available when employees make their investment decisions. Regressions (3) and (4) of Appendix Table 2, which repeat the test of Table 2, column (2) using a different timing for the news, lead to very similar conclusions. Regressions (5) and (6) report the same test as in Column (4) of Table 3 considering news between months t-12 and months t-7 and between months t-12 and months t-4, respectively, instead of news in the last 12 months. They confirm that the differential effect of different news types on employees' investment decisions does not depend on the timing of the news.[7]

Next, we verify that the baseline results are robust to clustering at the level of stocks rather than at the level of firms. The logic behind the decision to cluster standard errors at the firm level is the correlation between investment decisions of employees working at the same location documented in Ouimet and Tate, 2020a. However, factors related to the entire set of firms linked to the same stock could also influence employee decisions, in particular if news are reported at the level of stocks rather than individual subsidiaries. To account for this

[7] Unreported tests show that we obtain similar conclusions as in Appendix Table 2 when we consider the intensive margin of investment, i.e., the amounts employees invest in their employers' stock rather than their decision to invest.

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possibility and in spite of the relatively small number of clusters (22) when we consider stocks, we repeat the test of Table 2, Column (2), using stock-level clustering of standard errors in the first column of Appendix Table 3. Standard errors increase by about a third but the coefficient of interest (the number of ESG-related news in the previous 12 months) remains highly significant statistically. In columns (2) to (6) of Appendix Table 3, we apply the same change in clustering to the regressions of Table 3, in which we split ESG news by their type. Although statistical significance decreases for some individual coefficients, the main conclusion remains: The effect of ESG news on investment decisions is mostly driven by news in the social category.

Finally, Appendix Table 4 repeats the same analysis as Table 3 focusing on the intensive margin of employees' investments. It shows a very similar pattern, i.e., when we consider the number of each type of incidents together (in column (4)), more S incidents lead to less investment, while G incidents have an insignificant effect and E incidents lead to larger investments in euro terms on average.[8] In Column (5), the same analysis as in Table 3 also confirms that the positive relationship between the number of E-type incidents and the amount invested in the firm's stock fund appears only for firms that operate in polluting sectors.

d. The heterogeneous impact of various types of social news

We now refine the analysis to understand which part of the social dimension drives employees' investment decisions. To do so, we explore the impact of news from different sub-categories of the social pillar. RepRisk classifies social news into 10 categories, for each of which Table 1 provides summary statistics on the annual number of incidents. Since incidents are relatively rare in each individual category (between 0.4 and 3 per year on average), we group them into three broader themes, namely, 1) "Labor and human rights", broadly capturing

[8] In the rest of the paper, we show and comment tables with the decision to invest as the dependent variable. However, we also show in appendix tables the same tests using the amount invested as the dependent variable. These tests lead to the same conclusions.

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news related to labor law or human rights violations, often in foreign countries, and containing news on child labor, forced labor and human rights; 2) "Working conditions, employment and social discrimination", capturing human resources policies in place at the company and the resources companies put in place to facilitate the everyday life of their employees and their consequences, and containing news on employment discrimination, social discrimination, health and safety conditions, employment conditions, freedom of association; and 3) "Communities and local participation", capturing companies' actions vis-à-vis the local community and containing news on community impact and local participation of firms.

[Insert Table 4 here.]

Table 4 reports the same regressions as in Table 3, regressing an indicator variable equal to one if employee *i* invests in her company's stock in month *m* on the usual set of controls and fixed effects and on the number of S-type incidents from the three sub-categories described above. In the first three columns, we include the number of news from each social sub-category separately, we include them together in column (4), and we additionally control for the numbers of G and E news in column (5).

Regressions in columns (1) to (3) of Table 4 show that each sub-category of S-type incidents seems to affect the employees' propensity to invest in the company's stock. When we consider the three sub-categories together (in column (4)), only incidents in the "working conditions, employment and social discrimination" category have a significant effect on investment decisions, and their economic effect is much larger than that of incidents from the two other categories. The same conclusion holds when we add the number of E- and G-type incidents as controls. Thus, it seems that the main driver of employees' investment decisions is the working conditions they face in their day-to-day activity, while the role of other types of firm policies or outcomes pertaining to the S pillar is more modest. Like the eveidence from

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previous tests, the fact that employees are more sensitive to events that affect them directly than to news related to remote events (like those in the "Labor and human rights" sub-category) or to events that affect the community at large (like those in the "Communities and local participation" sub-category) suggests that employees tend to be more self-interested than altruistic.

e. Local vs. foreign news

RepRisk reports the country in which each incident occurs. This characteristic of incidents can help us understand better employees' investment decisions. If these decisions are driven primarily by self-interest, as the previous result suggests, the effect of incidents should be more pronounced when they affect the employee more directly, that is, when they are local (in our context, local news are news related to events that happen in France). On the contrary, employees who care mostly about their firm taking actions that benefit the public in general, e.g., actions aimed at protecting the environment, may be indifferent to whether news are related to local or foreign events. To explore this, we now consider the location of events reported by RepRisk in regressions in which the baseline effect of news of a given type is captured by the overall number of news, while the extra effect of local news is captured by the number of news of the same type referring to events happening in France.

[Insert Table 5 here.]

Table 5 reports the results of these tests. In column (1), we consider news of all types. The regression results suggest that the location of the news is irrelevant, as the marginal effect of the number of French news relative to the total number of news is small, both statistically and economically. This result rules out the possibility that French employees are only attentive to news related to events happening in France, which are presumably more salient for them. On the contrary, when we split news by their types (E, S or G) in column (2), a different picture

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emerges, especially for incidents related to the S pillar. While foreign S-type news have a marginally negative and statistically insignificant impact on employees' propensity to invest, the marginal impact of news about social incidents that occur in France have an impact that is about three times as large and very significant statistically. As for our previous results, this points towards a self-interested view in which events that affect employees directly are a key determinant of their investment decisions.

f. Heterogeneity across employees

Next, we ask whether some employee characteristics are associated with the decision to invest in a firm's stock funds. If altruism is an important driver of investment in the employee's own company, then we expect more altruistic employees to react more strongly to the ESG performance of their firm, and therefore, more negatively to ESG incidents, in their investment decisions. We do not observe the individual preferences of employees. Instead, we proxy for them using employees' observable characteristics. Our proxies for altruism are the gender and the age of the employee, as women and younger people tend to be more altruistic (Riedl and Smeets, 2017). We also measure the altruism of employees more directly with an indicator variable equal to one if some of the money in their employee savings plan is invested in SRI funds.

Employees may also be sensitive to the recent ESG performance of their firm because they anticipate that ESG performance is associated with future stock returns (Krüger et al., 2020; Bauer et al., 2021; Glössner, 2021). If this motive explains the link between ESG news and investment decisions, then more sophisticated investors, who are better able to collect and process information and to relate it to future stock performance, should be more sensitive to ESG news when they make their investment decisions. We use two proxies of investor

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sophistication. First, the total assets they hold in the corporate plan, and second, an indicator variable equal to one for investors who hold diversified equity funds in the plan.

[Insert Table 6 here.]

To test the "altruistic" and the "value maximizing" behaviors mentioned above, we add time-varying individual-level controls to the baseline regression, as well as their interaction with the ESG performance measure.[9] The main focus of the analysis is on the effect of the interaction variables. Table 6 reports the results of this analysis. In line with our previous findings, the number of ESG incidents reported by RepRisk is associated with the willingness of employees to participate in the ownership plans proposed by their employer. When we consider the effect of individual characteristics on the investment decision, no individual characteristic affects the link between ESG performance and investment decisions, with the exception of investment in SRI funds (in column (5) of Table 6). Employees who invest some of their employee savings plan in SRI funds are more likely to also invest in the stock of their own company, but the negative coefficient on the interaction term *Invest in SRI* × # *news* suggests that this is less the case when RepRisk has reported more ESG incidents about the company in the previous year.

Using a more precise specification in which we split the number of ESG incidents into the three categories E, S and G, we still find a positive link between SRI investment and investment in the stock fund of the employer, but none of the interaction terms with the number of news of the three categories appears to have a significant impact on the investment decision (column (6) of Table 6). Overall, these results do not provide unambiguous evidence that

[9] In the case of time-invariant controls, only the interaction term appears, as employee fixed effects absorb the control variable itself.

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altruism and value maximization are important drivers of the decision of employees to invest in the stock of their own employers.

In Appendix Table 6, we repeat the same tests focusing on the intensive margin of the amount invested. Our conclusions are unchanged, except for the cross-sectional difference between employees who invest in SRI funds and employees who do not. In this setting, employees who are more "altruistic", identified as those who invest in SRI funds, also tend to be more sensitive to S-type news when they choose the amount invested in the stock of their employer.

g. ESG news and stock returns

In this section, we explore the link between ESG news and stock returns. Our previous results suggest that the main reason why ESG news affect employees' investment decisions is self-interest. That is, favorable working conditions seem to affect the loyalty of employees vis-à-vis the firm they work for and thus their willingness to invest in its stock when they have the possibility to do so. In line with this argument, investment decisions respond to firm performance in the S pillar. However, this finding could also be consistent with a value-maximization motive if S-type news were associated with larger future returns.

To examine this possibility, we explore the link between RepRisk news and future stock returns at different horizons. We consider investment horizons between one month and four years, and we regress raw stock returns on the number of RepRisk news in the last month (Colmun 1) and in the last 12 months in columns 2 to 5 of Table 7. Our main focus is on long horizons because employees' investments are locked up in the fund for 5 years when they invest in their employer's stock. Therefore, employees cannot use these investments to exploit their information in the short term. Only long-term returns, if they were explained by RepRisk news,

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could motivate employees' investments in their company's stock.[10] We also include stock-level controls, stock fixed effects and year-month fixed effects and we cluster standard errors at the stock level, since the entire analysis is at this level.

[Insert Table 7 here.]

Consistent with the literature (e.g., Glossner, 2021), Panel A of Table 7 shows that ESG incidents reported by RepRisk have a negative effect on stock returns at a short horizon (one month), but also at longer horizons, with negative coefficients that decrease in their magnitude and are significant at the 10% level at the two-year horizon only. In Panel B of Table 7, we replicate this empirical exercise splitting news by their type (E, S or G). The short-term (one-month) stock price reaction is larger for news in the Social pillar, both economically and statistically. However, there is no distinguishable difference between the effects of different types of news on longer-term returns, some news even being associated with positive returns at some horizons, but none of the effects being statistically significant at conventional levels. This is inconsistent with a value-maximization explanation of our previous findings.

In Appendix tables 7 and 8, we do the same analysis with a focus on French vs. foreign news (in Appendix Table 7) and on the different sub-categories of S-type news (in Appendix Table 8). Consistent with the findings of Table 7, events that occur in France (of the S type or not) are not associated with significantly lower returns. This conclusion holds for all the horizons considered, from one month to four years. In Appendix Table 8, we return to the link between the three ESG pillars and stock returns, splitting social news into the three sub-categories considered previously. The results are more difficult to interpret, with coefficients and statistical significance varying across horizons. For example, news related to working

[10] Given that our sample period covers 2015 to 2018, we can only calculate 5-year returns for part of the stock-month observations, so we run the analysis with horizons up to 4 years.

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conditions and social discrimination, which affect employees' investment decisions the most, are associated with significantly negative returns at a one-year horizon, with significantly positive returns at a three-year horizon, and with insignificant returns at other horizons. Taken together, these results are inconsistent with the hypothesis that employees rationally invest in their company's stock when there is less news about local working conditions in anticipation that favorable local working conditions will be reflected in (long-term) future stock prices. However, we cannot reject the possibility that employees who observe favorable working conditions at their workplace wrongly anticipate higher future stock returns.

6. Concluding remarks

Employee share ownership is widespread, despite the underdiversification this implies for an employee. A few studies have attempted to characterize the drivers of the employees' decision to invest in the stock of their own company. In this paper, using unique data from company-sponsored savings plans in France, we consider a novel determinant of employees' investment decision: the ESG performance of the company the employee works for. We find that employees take the ESG performance of their *own firm* into account when they decide whether to invest in its stock. Specifically, we find that local working conditions is the ESG dimension that affects the most employees' investment decisions. This points toward employees caring mainly about their own well-being when expressing their satisfaction and loyalty toward their employer via their investment choices. This result somehow differs from those related to the behavior of institutional investors regarding ESG incidents (e.g., Hoang et al., 2019).

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Because employee activism has emerged in recent years as an important phenomenon, it is important to understand whether employee interests are aligned with those of shareholders or rather if their activism can lead to conflicts with these other key stakeholders. Our results on the link between ESG practices and employee investments can improve our understanding of the tradeoff faced by firms between the benefits associated with employee shareholding and the potential tension this can create with other business dimensions.

More broadly, our paper suggests that ESG practices can impact the stock market participation of employees. It raises additional questions regarding the extent to which employers can contribute to reduce the gap preventing many investors from participating in the stock market.

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References

Aldatmaz, S., Ouimet, P., & Van Wesep, E. D. (2018). The option to quit: The effect of employee stock options on turnover. *Journal of Financial Economics*, *127*(1), 136-151.

Agnew, J. R. (2006). Do behavioral biases vary across individuals? Evidence from individual level 401 (k) data. *Journal of financial and Quantitative Analysis*, *41*(4), 939-962.

Aubert, N., Kern, A., & Hollandts, X. (2017). Employee stock ownership and the cost of capital. *Research in International Business and Finance*, *41*, 67-78.

Babenko, I., & Sen, R. (2014). Money left on the table: An analysis of participation in employee stock purchase plans. *The Review of Financial Studies*, *27*(12), 3658-3698.

Bauer, R., Ruof, T., & Smeets, P. (2021). Get Real! Individuals Prefer More Sustainable Investments. *The Review of Financial Studies*, 34(8), 3976–4043.

Beatty, A. (1995). The cash flow and informational effects of employee stock ownership plans. *Journal of financial economics*, *38*(2), 211-240.

Benartzi, S. (2001). Excessive extrapolation and the allocation of 401 (k) accounts to company stock. *The Journal of Finance*, *56*(5), 1747-1764.

Benartzi, S., Thaler, R. H., Utkus, S. P., & Sunstein, C. R. (2007). The law and economics of company stock in 401 (k) plans. *The Journal of Law and Economics*, *50*(1), 45-79.

Berg, F., Koelbel, J. F., & Rigobon, R. (2019). Aggregate confusion: The divergence of ESG ratings. MIT Sloan School of Management.

Bianchi, M., Wang, G., & Liu, Z. (2022). Are We Becoming Greener? Life-time Experiences and Responsible Investment. *Available at SSRN 4003445*.

Brière, M., & Ramelli, S. (2021). Responsible Investing and Stock Allocation, *Available at SSRN 3853256.*

Casamatta, C., Jaballah J., & Pouget, S. (2022). Employees as Directors, Working Paper.

Cen, X., Qiu, Y., & Wang, T.Y. (2021). Employee Ideology and the Retention Effect of Corporate Social Responsibility. Mimeo, University of Minnesota..

Chang, S., & Mayers, D. (1992). Managerial vote ownership and shareholder wealth: Evidence from employee stock ownership plans. *Journal of Financial Economics*, *32*(1), 103-131.

Choi, D., Gao, Z., & Jiang, W. (2020). Attention to Global Warming, *Review of Financial Studies, 33(3),* 1112–1145.

Choi, J. J., Laibson, D., Madrian, B. C., & Metrick, A. (2004). Employees' investment decisions about company stock.

Electronic copy available at: https://ssrn.com/abstract=4164062

Cohen, L. (2009). Loyalty-based portfolio choice. *The Review of Financial Studies*, *22*(3), 1213-1245.

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

DARES (2021). Participation, intéressement et épargne salariale en 2019 », available at https://dares.travail-emploi.gouv.fr/.

Degeorge, F., Jenter, D., Moel, A., & Tufano, P. (2004). Selling company shares to reluctant employees: France Telecom's experience. *Journal of Financial Economics*, *71*(1), 169-202.

Derrien, F., Krüger, P., Landier A., & Yao, T. (2022). ESG news, future cash flows, and firm value. *Available at SSRN 3903274*.

Dimmock, S. G., Kouwenberg, R., Mitchell, O. S., & Peijnenburg, K. (2016). Ambiguity aversion and household portfolio choice puzzles: Empirical evidence. *Journal of Financial Economics*, *119*(3), 559-577.

Döttling, R., Ladika, T., & Perotti, E. C. (2018). The (self-) funding of intangibles. *Available at SSRN 3106822*.

Edmans, A. (2011). Does the stock market fully value intangibles? Employee satisfaction and equity prices. *Journal of Financial Economics*, *101*(3), 621-640.

Engelhardt, G. V., & Madrian, B. C. (2004). Employee stock purchase plans. *National Tax Journal*, *57*(2), 385-406.

ERES (2020). Panorama de l'actionnariat salarié, available at https://www.eres-group.com/.

FEAS (2020). Recensement de l'actionnariat salarié européen, available at http://www.efesonline.org/.

Gantchev, N., Giannetti, M., & Li, R. (2022). Does money talk? Divestitures and corporate environmental and social policies. Forthcoming, *Review of Finance*.

Gibson Brandon, R., Krüger, P., & Schmidt, P. S. (2021). ESG rating disagreement and stock returns. *Financial Analysts Journal, 77(4), 104-127*.

Ginglinger, E., Megginson, W., & Waxin, T. (2011). Employee ownership, board representation, and corporate financial policies. *Journal of corporate finance*, *17*(4), 868-887.

Glossner, S. (2021). Repeat Offenders: ESG Incident Recidivism and Investor Underreaction. *Available at SSRN 3004689*.

Groen-Xu, M., & Zeume, S. (2021). The ESG Home Bias. *Available at SSRN 3938925.*

Hoang, L. T., Wee, M., Yang, J. W., & Yu, J. (2019). Institutional trading around firms' negative ESG incidents.

Electronic copy available at: https://ssrn.com/abstract=4164062

Huberman, G. (2001). Familiarity breeds investment. *The Review of Financial Studies, 14(3),* 659-680.

Huberman, G., & Sengmueller, P. (2004). Performance and employer stock in 401 (k) plans. *Review of Finance*, *8*(3), 403-443.

Kaarsemaker, E., Pendleton, A., & Poutsma, E. (2010). Employee share ownership. In *The Oxford handbook of participation in organizations*.

Koppel, H., & Regner, T. (2014), Corporate Social Responsibility in the Workplace. *Experimental Economics, 17(3)*, 347-370.

Krüger, P., Metzger, D., & Wu, J. (2020). The sustainability wage gap. SSRN Working Paper 3672492.

Krüger, P., Sautner, Z., & Starks, L. T. (2020). The importance of climate risks for institutional investors. *The Review of Financial Studies, 33(3),* 1067-1111.

Landier, A., Thesmar, D., & Thoenig, M. (2022). Investigating capitalism aversion, *Economic Policy*, *23(55),* 2008, 466-497.
Liang, N., & Weisbenner, S. (2002). Investor behavior and the purchase of company stock in 401 (k) plans-the importance of plan design.

Lee, Y. T., Liu, Y. J., & Zhu, N. (2008). The costs of owning employer stocks: Lessons from Taiwan. *Journal of Financial and Quantitative Analysis*, *43*(3), 717-740.

Madrian, B.C., & Shea, D.F. (2001). The power of suggestion: Inertia in 401 (k) participation and savings behavior. *The Quarterly Journal of Economics 116*(4), 1149-1187.

Meulbroek, L. (2005). Company stock in pension plans: How costly is it?. The Journal of Law and Economics, 48(2), 443-474.

Ouimet, P., & Tate, G. (2020a). Learning from coworkers: Peer effects on individual investment decisions. *The Journal of Finance*, *75*(1), 133-172.

Ouimet, P., & Tate, G. (2020b). Attention for the Inattentive: Positive Effects of Negative Financial Shocks. *Review of Finance*, *24*(3), 615-646.

Pastor, L., Stambaugh, R.F., & Taylor, L.A. (2021). Sustainable Investing in Equilibrium. *Journal of Financial Economics,* 142(2), 550-571.

Pedersen, L.H., Fitzgibbons, S., & L. Pomorski. (2021). Responsible investing: The ESG-efficient frontier. Forthcoming, *Journal of Financial Economics*.

Poterba, J. M. (2003). Employer stock and 401 (k) plans. *American Economic Review*, *93*(2), 398-404.

Rauh, J. D. (2006). Own company stock in defined contribution pension plans: A takeover defense?. *Journal of Financial Economics*, *81*(2), 379-410.

Electronic copy available at: https://ssrn.com/abstract=4164062

VanDerhei, J., Holden, S., Alonso, L., & Bass, S. (2018). 401 (k) plan asset allocation, account balances, and loan activity in 2016. *EBRI issue brief*, (458).

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Table 1 – Summary statistics

This table presents summary statistics of the variables used in the subsequent tables. In Panel A (individual characterictics), observations are at the employee-month level, in months in which employers create new stock funds. In panel B (RepRisk variables) and C (Firm characteristics), observations are at the firm-month level. In Panel B, # news is the total number of news reported by RepRisk in months t-12 to t-1. All variables are defined in Appendix 1.

	p1	p5	p25	mean	p50	p75	p95	p99	sd	N
Panel A: Individual characteristics										
Invests in company stock	0.00	0.00	0.00	0.39	0.00	1.00	1.00	1.00	0.49	1,643,953
Amount in company stock	0.00	0.00	0.00	490.87	0.00	192.00	2183.60	7603.15	4401.06	1,643,953
Invests in SRI	0.00	0.00	0.00	0.09	0.00	0.00	1.00	1.00	0.29	1,643,953
Age	24.00	27.00	36.00	45.95	46.00	55.00	67.00	74.00	12.37	1,643,953
Female	0.00	0.00	0.00	0.20	0.00	0.00	1.00	1.00	0.40	1,643,953
Total assets	26.40	153.27	2013.83	29808.55	10131.54	31991.22	116120.00	283793.80	68757.90	1,643,953
Panel B: Reprisk variables										
Rating Reprisk	2.00	3.00	5.00	6.10	7.00	8.00	8.00	9.00	1.83	1,056
Index Reprisk	0.00	0.00	6.50	19.93	20.00	26.00	54.00	61.00	15.86	1,056
# news	0.00	0.00	0.00	12.80	3.00	12.00	76.00	93.00	22.65	1,056
# news E	0.00	0.00	0.00	6.56	1.00	3.00	50.00	62.00	14.61	1,056
# news S	0.00	0.00	0.00	7.22	1.00	6.00	41.00	53.00	13.15	1,056
# news G	0.00	0.00	0.00	5.09	1.00	6.00	29.00	37.00	8.83	1,056
# news France	0.00	0.00	0.00	2.57	1.00	3.00	12.00	21.00	4.33	1,056
# news France E	0.00	0.00	0.00	1.26	0.00	1.00	7.00	12.00	2.43	1,056
# news France S	0.00	0.00	0.00	1.46	0.00	1.00	8.00	15.00	3.03	1,056
# news France G	0.00	0.00	0.00	1.16	0.00	2.00	6.00	10.00	1.99	1,056
# news child labor	0.00	0.00	0.00	0.33	0.00	0.00	2.00	4.00	0.90	1,056
# news forced labor	0.00	0.00	0.00	0.55	0.00	1.00	3.00	4.00	1.13	1,056
# news human rights	0.00	0.00	0.00	2.13	0.00	2.00	11.00	17.00	3.86	1,056
# news employment discrimination	0.00	0.00	0.00	0.26	0.00	0.00	2.00	3.00	0.64	1,056
# news social discrimination	0.00	0.00	0.00	0.09	0.00	0.00	1.00	2.00	0.33	1,056
# news health and safety conditions	0.00	0.00	0.00	1.48	0.00	1.00	8.00	15.00	3.07	1,056
# news employment conditions	0.00	0.00	0.00	1.16	0.00	2.00	5.00	9.00	1.98	1,056
# news freedom of association	0.00	0.00	0.00	0.55	0.00	1.00	3.00	5.00	1.14	1,056
# news communities impact	0.00	0.00	0.00	4.55	0.00	2.00	33.00	44.00	10.32	1,056
# news local participation	0.00	0.00	0.00	1.36	0.00	0.00	10.00	15.00	3.24	1,056
Panel C: Firm characteristics										
Nb of employees (ln)	6.08	6.35	9.15	10.31	11.09	11.63	12.20	12.26	1.80	1,056
Total assets (ln)	13.51	14.02	15.98	16.62	16.72	17.39	18.92	19.19	1.34	1,056
Cash	0.00	0.01	0.04	0.10	0.09	0.16	0.24	0.38	0.08	1,056
Leverage	0.02	0.07	0.15	0.22	0.21	0.30	0.42	0.42	0.10	1,056
Capex	0.00	0.01	0.01	0.03	0.03	0.05	0.07	0.11	0.02	1,056
R&D expenses	0.00	0.00	0.00	0.01	0.00	0.02	0.06	0.14	0.03	1,056
Market value (ln)	7.48	7.70	8.63	9.46	9.51	10.17	11.55	11.69	1.09	1,056
ROA	-0.11	-0.02	0.03	0.05	0.04	0.06	0.14	0.26	0.05	1,056
Net profit margin	-0.12	-0.03	0.03	0.21	0.06	0.12	1.29	3.39	0.53	1,056
Labor productivity	61.04	73.61	184.69	450.48	286.63	648.14	1223.01	1600.55	391.27	1,044
Sales growth	-0.54	-0.13	-0.02	0.05	0.03	0.10	0.32	0.89	0.18	1,056
Stock ann. Return	-0.17	-0.10	-0.03	0.01	0.01	0.05	0.13	0.18	0.07	1,056
Stock volatility	0.09	0.12	0.16	0.24	0.21	0.29	0.44	0.64	0.11	1,056
Dividend per share	0.00	0.00	1.00	1.98	1.60	2.40	5.30	10.50	2.06	1,056
Book value per share	2.67	6.43	17.31	39.59	28.02	43.18	158.13	189.43	40.73	1,056
Number of funds	3.00	7.00	10.00	21.41	17.50	26.00	55.00	59.00	15.19	1,056
Number of equity funds	0.00	0.00	1.00	2.95	3.00	5.00	6.00	8.00	2.10	1,056
Firm in polluting sector	0.00	0.00	0.00	0.59	1.00	1.00	1.00	1.00	0.49	1,056

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Table 2 – Baseline results

This table presents linear regressions of the decision to invest in stock funds proposed by employers on ESG performance, employee- and firm-level controls, and year-month and employee fixed effects. Observations are at the employee-month level, in months in which employers create new stock funds. The dependent variable is an indicator variable equal to one if the employee invests in the stock fund in columns (1) and (2) and the natural logarithm of one plus the amount invested in columns (3) and (4). ESG performance is measured using the number of ESG incidents reported by RepRisk in the year leading to the end of the previous montg. The control variables are described in Appendix 1. Standard errors clustered at the firm level are in parenthesis. *, and, respectively, ** and ***, indicate statistical significance at the 10%, and respectively, the 5%, the 1% level.

	(1) Invests in company stock	(2) Invests in company stock	(3) Amount in company stock (ln)	(4) Amount in company stock (ln)
# news (ln)	-0.222***	-0.263***	-1.729***	-2.108***
	(0.037)	(0.046)	(0.251)	(0.330)
Nb of employees (ln)	-0.205***	-0.256***	-1.225**	-1.700***
	(0.063)	(0.079)	(0.497)	(0.650)
Total assets (kE ln)	0.204***	0.227***	0.642	0.859
	(0.065)	(0.083)	(0.473)	(0.616)
Cash	-1.884***	-1.536**	-15.550***	-12.310**
	(0.682)	(0.723)	(4.922)	(5.475)
Leverage	-0.430	-0.277	-2.002	-0.586
	(0.316)	(0.360)	(2.340)	(2.810)
Capex	0.879	1.045	-0.876	0.739
	(2.806)	(3.231)	(19.990)	(24.240)
R&D expenses	5.114***	6.119***	26.630***	35.900***
	(1.327)	(1.615)	(9.944)	(12.210)
Market value (ln)	0.196**	0.219**	1.730***	1.945**
	(0.086)	(0.101)	(0.606)	(0.754)
ROA	-2.539*	-2.098	-15.390	-11.280
	(1.421)	(1.673)	(10.72)	(12.89)
Net profit margin	0.181	-0.248	1.778	-2.185
	(0.435)	(0.564)	(2.766)	(3.899)

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Labor productivity	0.0004**	0.0002	0.005***	0.003
	(0.0002)	(0.0002)	(0.001)	(0.002)
Sales growth	-0.810***	-0.960***	-6.224***	-7.616***
	(0.090)	(0.103)	(0.663)	(0.779)
Stock ann. Return	-1.473***	-1.156**	-5.211*	-2.284
	(0.488)	(0.563)	(2.719)	(3.488)
Stock volatility	1.230***	1.358***	9.428***	10.590***
	(0.365)	(0.427)	(2.697)	(3.243)
Price Earnings Ratio	0.012***	0.011***	0.060***	0.051**
	(0.003)	(0.003)	(0.019)	(0.022)
Dividend per share	-0.052	0.0053	0.344	0.872
	(0.114)	(0.130)	(0.800)	(0.955)
Book value per share	-0.011	-0.011	-0.120**	-0.124**
	(0.007)	(0.008)	(0.049)	(0.059)
Number of funds	-0.001	-0.001	-0.003	-0.002
	(0.002)	(0.002)	(0.008)	(0.010)
Number of equity funds	-0.039***	-0.035***	-0.234***	-0.196***
	(0.005)	(0.005)	(0.037)	(0.037)
Individual total assets (ln)		0.028***		0.246***
		(0.009)		(0.084)
Receives variable remuneration		0.277***		2.551***
		(0.030)		(0.215)
Constant	-1.853*	-2.205*	-5.779	-8.968
	(0.964)	(1.172)	(6.892)	(8.517)
Individual FE	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes
Observations	1,643,953	1,643,953	1,643,953	1,643,953
R^2	0.75	0.76	0.72	0.74

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Table 3 – Heterogeneity across ESG pillars

This table presents linear regressions of the decision to invest in stock funds proposed by employers on ESG performance, employee- and firm-level controls, and year-month and employee fixed effects. Observations are at the employee-month level, in months in which employers create new stock funds. The dependent variable is an indicator variable equal to one if the employee invests in the stock fund. ESG performance is measured using the number of ESG incidents reported by RepRisk in the year leading to the end of the previous month (E-type incidents in column (1), S-type incidents in column (2), G-type incidents in column (3), and incidents of the three types in column (4). In column (5), the regression is augmented with the interaction of the number of E-type incidents with an indicator variable equal to one for firms in polluting industries.s The control variables are described in Appendix 1. Standard errors clustered at the firm level are in parenthesis. *, and, respectively, ** and ***, indicate statistical significance at the 10%, and respectively, the 5%, the 1% level.

	Dependent variable: Invests in company stock				
	(1)	(2)	(3)	(4)	(5)
# news E (ln)	-0.146**			0.141**	-0.324**
	(0.068)			(0.057)	(0.127)
# news S (ln)		-0.374***		-0.546***	-0.555***
		(0.074)		(0.126)	(0.104)
# news G (ln)			-0.185***	0.065	0.082
			(0.044)	(0.066)	(0.053)
# news E × firm in polluting sector					0.549***
					(0.154)
Constant	0.478	-2.356*	-2.252	-2.968*	-2.657*
	(1.417)	(1.318)	(1.370)	(1.514)	(1.534)
Controls	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes
Year-Month FE	Yes	Yes	Yes	Yes	Yes
Observations	1,643,953	1,643,953	1,643,953	1,643,953	1,643,953
R^2	0.76	0.76	0.76	0.76	0.76

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Table 4 – Heterogeneity across S-type sub-categories

This table presents linear regressions of the decision to invest in stock funds proposed by employers on ESG performance, employee- and firm-level controls, and year-month and employee fixed effects. Observations are at the employee-month level, in months in which employers create new stock funds. The dependent variable is an indicator variable equal to one if the employee invests in the stock fund. ESG performance is measured using the number of ESG incidents reported by RepRisk in the year leading to the end of the previous month in the three categories E, S and G, with S-type news split into three sub-categories. The control variables are described in Appendix 1. Standard errors clustered at the firm level are in parenthesis. *, and, respectively, ** and ***, indicate statistical significance at the 10%, and respectively, the 5%, the 1% level.

	Dependent variable: Invests in company stock				
	(1)	(2)	(3)	(4)	(5)
# news labor & human rights (ln)	-0.238**			-0.116	-0.073
	(0.112)			(0.091)	(0.114)
# news working conditions employment & social discrimination (ln)		-0.245***		-0.236**	-0.198**
		(0.066)		(0.103)	(0.085)
# news communities & local participation (ln)			-0.159**	0.0305	0.175
			(0.063)	(0.103)	(0.186)
# news E (ln)					-0.019
					(0.063)
# news G (ln)					-0.162
					(0.131)
Constant	-1.054	-3.906**	-1.380	-4.053***	-3.878**
	(1.432)	(1.517)	(1.665)	(1.375)	(1.565)
Controls	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes
Year-Month FE	Yes	Yes	Yes	Yes	Yes
Observations	1,643,953	1,643,953	1,643,953	1,643,953	1,643,953
R^2	0.76	0.76	0.76	0.76	0.76

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Table 5 – Local vs. foreign ESG incidents

This table presents linear regressions of the decision to invest in stock funds proposed by employers on ESG performance, employee- and firm-level controls, and year-month and employee fixed effects. Observations are at the employee-month level, in months in which employers create new stock funds. The dependent variable is an indicator variable equal to one if the employee invests in the stock fund in columns (1) and (2) and the natural logarithm of the amount invested in columns (3) and (4). ESG performance is measured using the number of ESG incidents reported by RepRisk in the year leading to the end of the previous month, split by their geographical origin in columns (1) and (3), and split by their type (E, S or G) and their geographical origin in columns (2) and (4). The control variables are described in Appendix 1. Standard errors clustered at the firm level are in parenthesis. *, and, respectively, ** and ***, indicate statistical significance at the 10%, and respectively, the 5%, the 1% level.

	(1) Invests in company stock	(2) Invests in company stock	(3) Amount invested in company stock (ln)	(4) Amount invested in company stock (ln)
# news France (ln)	0.00958		0.0834	
	(0.053)		(0.441)	
# news (ln)	-0.270***		-2.166***	
	(0.062)		(0.453)	
# news France E (ln)		0.197		2.009
		(0.196)		(1.242)
# news France S (ln)		-0.376***		-2.931***
		(0.104)		(0.814)
# news France G (ln)		0.234**		2.211**
		(0.113)		(0.853)
# news E (ln)		0.197*		1.343**
		(0.106)		(0.681)
# news S (ln)		-0.186		-1.375
		(0.153)		(1.038)
# news G (ln)		-0.219*		-2.285**
		(0.126)		(0.920)
Constant	-2.141	-2.741	-8.416	-16.250
	(1.307)	(2.149)	(9.678)	(13.680)
Controls	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes
Year-Month FE	Yes	Yes	Yes	Yes
Observations	1,643,953	1,643,953	1,643,953	1,643,953
R^2	0.76	0.76	0.74	0.74

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Table 6 – Employee characteristics

This table presents linear regressions of the decision to invest in stock funds proposed by employers on ESG performance, employee- and firm-level controls, and year-month and employee fixed effects. Observations are at the employee-month level, in months in which employers create new stock funds. The dependent variable is an indicator variable equal to one if the employee invests in the stock fund. ESG performance is measured using the number of ESG incidents reported by RepRisk in the year leading to the end of the previous month. This variable is interacted with employee characteristics (gender, age, and assets held in the savings plan). The control variables are described in Appendix 1. Standard errors clustered at the firm level are in parenthesis. *, and, respectively, ** and ***, indicate statistical significance at the 10%, and respectively, the 5%, the 1% level.

	Dependent variable : Invests in company stock					
	(1)	(2)	(3)	(4)	(5)	(6)
# news (ln)	-0.257***	-0.257***	-0.239***	-0.269***	-0.258***	
	(0.048)	(0.048)	(0.082)	(0.046)	(0.047)	
Female × # news	-0.025					
	(0.041)					
Age between 30 and 40 × # news		0.002				
		(0.005)				
Age between 40 and 50 × # news		-0.006				
		(0.007)				
Age above 50 × # news		-0.023				
		(0.023)				
Age between 30 and 40		-0.021				
		(0.013)				
Age between 40 and 50		0.005				
		(0.016)				
Age above 50		0.051				
		(0.054)				
Assets in Q2 × # news			-0.027			
			(0.054)			
Assets in Q3 × # news			-0.017			
			(0.074)			
Assets in Q4 × # news			-0.052			
			(0.127)			
Invests in equity × # news				0.010		
				(0.013)		
Invests in equity				-0.021		
				(0.030)		

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Invests in SRI × # news					-0.015**	
					(0.007)	
Invests in SRI					0.067***	0.067***
					(0.017)	(0.015)
# news E (ln)						0.142**
						(0.056)
# news S (ln)						-0.541***
						(0.126)
# news G (ln)						0.068
						(0.066)
Invests in SRI × # news E						0.024
						(0.017)
Invests in SRI × # news S						-0.026
						(0.017)
Invests in SRI × # news G						-0.009
						(0.010)
Constant	-2.242*	-2.196*	-2.257*	-2.146*	-2.302**	-3.057**
	(1.176)	(1.169)	(1.179)	(1.171)	(1.167)	(1.498)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,643,953	1,643,953	1,643,953	1,643,953	1,643,953	1,643,953
R^2	0.76	0.76	0.76	0.76	0.76	0.76

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Table 7 – ESG news and stock returns

This table presents linear regressions of firm's stock returns on their ESG performance, firm-level controls, and year-month and stock fixed effects. Observations are at the stock-month level. The dependent variable is the return in the coming month in column (1), and in years 1, 2, 3, and 4 in columns (1), (2), (3), and (4), respectively. ESG performance is measured using the number of ESG incidents reported by RepRisk in the previous month in column (1) and in the previous years in columns (1) to (4). The total number of news appears in Panel A, and the number of news in each category (E, S and G) in Panel B. The control variables are described in Appendix 1. Standard errors clustered at the stock level are in parenthesis. *, and, respectively, ** and ***, indicate statistical significance at the 10%, and respectively, the 5%, the 1% level.

Panel A – ESG news and future returns

	(1)	(2)	(3)	(4)	(5)
	MoM Stock return	1Y stock return	2Y stock return	3Y stock return	4Y stock return
# news last month (ln)	-0.010**				
	(0.004)				
# news last 12 months (ln)		-0.040	-0.037*	-0.012	-0.020
		(0.046)	(0.020)	(0.017)	(0.018)
Constant	0.549***	7.240***	4.358***	3.489***	2.537***
	(0.110)	(1.123)	(0.483)	(0.433)	(0.508)
Controls	Yes	Yes	Yes	Yes	Yes
Group FE	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes
Observations	1,056	1,056	1,056	1,056	924
R^2	0.37	0.62	0.78	0.82	0.82

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Panel B – ESG news and future returns for each news type

	(1)	(2)	(3)	(4)	(5)
	MoM Stock return	1Y stock return	2Y stock return	3Y stock return	4Y stock return
# news E last month (ln)	-0.007				
	(0.010)				
# news S last month (ln)	-0.011*				
	(0.005)				
# news G last month (ln)	0.004				
	(0.007)				
# news E last 12 month (ln)		0.0319	-0.005	0.021	0.006
		(0.041)	(0.027)	(0.022)	(0.020)
# news S last 12 month (ln)		-0.032	0.022	0.004	-0.024
		(0.035)	(0.027)	(0.024)	(0.020)
# news G last 12 month (ln)		-0.072	-0.029	-0.014	-0.006
		(0.047)	(0.022)	(0.017)	(0.014)
Constant	0.557***	7.181***	4.240***	3.446***	2.561***
	(0.106)	(1.072)	(0.488)	(0.424)	(0.502)
Controls	Yes	Yes	Yes	Yes	Yes
Group FE	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes
Observations	1,056	1,056	1,056	1,056	924
R^2	0.37	0.63	0.78	0.82	0.82

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Appendix 1 – Definitions of variables

Individual characteristics

Invests in company stock: A dummy variable equal to one if the employee invests in her employer's stock in month t

Amount of company stock: The amount in Euros invested by the employee in her employer's stock in month t

Invests in equity: A dummy variable equal to one if the employee has any of his savings plans' assets invested in an equity fund in month t

Invests in SRI: A dummy variable equal to one if the employee has any of his savings plans' assets invested in Socially Responsible Funds in month t

Age: The age (in years) of the employee in month t

Female: A dummy variable equal to one for female employees

Total assets: The total amount invested by the employee in the plan as of month t

RepRisk variables

RepRisk rating: The reputation risk rating of the company. It is obtained from a proprietary algorithm developed by RepRisk, which dynamically captures and quantifies a company's exposure to ESG risk. RepRisk provides a letter rating (AAA to D). We convert it to a number from 0 (D) to 9 (AAA).

RepRisk index: The reputation risk index of the company. The RepRisk Index, or RRI, denotes the current level of firm-specific media and stakeholder coverage related to ESG issues. RRIs range from 0 to 100, with higher values of the index corresponding to higher the risk exposures.

 # news: The natural logarithm of one plus the number of news on ESG issues of a company in months t-12 to t-1.

 # news E: The natural logarithm of one plus the number of news on environmental issues of a company in months t-12 to t-1.

 # news S: The natural logarithm of one plus the number of news on social issues of a company in months t-12 to t-1.

 # news G: The natural logarithm of one plus the number of news on governance issues of a company in months t-12 to t-1.

 # news France: The natural logarithm of one plus the number of news on ESG issues in France of a company in months t-12 to t-1.

 # news labor & human rights: The natural logarithm of one plus the number of news on child labor, forced labor and human rights issues in France of a company in months t-12 to t-1.

 # news working conditions, employment & social discrimination: The natural logarithm of one plus the number of news on employment discrimination, social discrimination, health and

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safety conditions employment conditions and freedom of association issues in France of a company in months t-12 to t-1.

 # news communities & local participation: The natural logarithm of one plus the number of news on communities impact and local participation issues in France of a company in months t-12 to t-1.

Firm characteristics

At the stock/parent company level

Nb of employee (ln): The natural logarithm of the company's total number of employees

Total assets (ln): The natural logarithm of the company's total assets (in thousands of Euros)

Market value: The natural logarithm of stock market capitalization of the company (in millions of Euros)

Stock ann. return: The annualized monthly stock return of the company

Stock volatility: The annualized volatility of daily stock return of the company over the year

Dividend per share: The company's dividend per share

Book value per share: The company's total book value divided by the number of outstanding shares

At the firm/subsidiary level

Cash: The company's cash holdings divided by total assets

Leverage: The company's debt divided by total assets

Capex: The company's capital expenditure divided by total assets

R&D expenses: The company's R&D expenses divided by total assets

ROA: The company's net income divided by total assets

Net profit margin: The company's net income divided by sales

Labor productivity: The company's sales divided by the number of employees

Sales growth: The yearly growth in the company's sales

Number of funds: The total number of funds in the menu offered by the firm to its employees

Number of equity funds: The number of diversified equity funds in the menu offered by the firm to its employees

Firm in a polluting sector: Indicator variable equal to one for firms operating in the mining, construction, manufacturing, transportation or public utilities industries

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Appendix Table 1 - Employee shareholder fund offering and ESG incidents

This table presents linear regressions of firms' creation of new stock funds on their ESG performance, firm-level controls, and year-month and stock fixed effects. Observations are at the stock-month level. The dependent variable is an indicator variable equal to one if the firm creates a new stock fund for its employees in month *t*. ESG performance is measured using the number of ESG incidents reported by RepRisk in the year leading to the end of the previous month. The control variables are described in Appendix 1. Standard errors clustered at the firm level are in parenthesis. *, and, respectively, ** and ***, indicate statistical significance at the 10%, and respectively, the 5%, the 1% level.

	Dependent variable: New company fund offered						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
# news (ln)	0.007						
	(0.025)						
Reprisk rating		-0.013					
		(0.014)					
Reprisk index			0.0007				
			(0.001)				
# news E (ln)				-0.004			-0.031
				(0.028)			(0.032)
# news S (ln)					0.034		0.046
					(0.027)		(0.033)
# news G (ln)						0.017	0.008
						(0.025)	(0.028)
Constant	0.700	0.579	0.795	0.678	0.227	0.782	-0.088
	(1.616)	(1.621)	(1.627)	(1.625)	(1.656)	(1.620)	(1.727)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stock FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,044	1,044	1,044	1,044	1,044	1,044	1,044
R^2	0.23	0.23	0.23	0.23	0.23	0.23	0.23

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Appendix Table 2 – Baseline results with alternative ESG performance measures and timing

This table presents linear regressions of the decision to invest in stock funds proposed by employers on ESG performance, employee- and firm-level controls, and year-month and employee fixed effects. Observations are at the employee-month level, in months in which employers create new stock funds. ESG performance is measured using the RepRisk rating at the end of the previous month in column (1), the RepRisk index at the end of the previous month in column (2), the number of ESG incidents in months t-4 to t-12 (resp., in months t-7 to t-12) in column (3) (resp., column (4)), and the number of ESG incidents in the E, S and G categories in months t-4 to t-12 (resp., in months t-7 to t-12) in column (5) (resp., column (6)). The control variables are described in Appendix 1. Standard errors clustered at the firm level are in parenthesis. *, and, respectively, ** and ***, indicate statistical significance at the 10%, and respectively, the 5%, the 1% level.

	Dependent variable : Invests in company stock					
	(1)	(2)	(3)	(4)	(5)	(6)
RepRisk rating t-1	0.136***					
	(0.038)					
RepRisk index t-1		-0.019***				
		(0.004)				
# news t-12 to t-4 (ln)			-0.176***			
			(0.039)			
# news t-12 to t-7 (ln)				-0.194***		
				(0.037)		
# news E t-12 to t-4 (ln)					0.114**	
					(0.056)	
# news S t-12 to t-4 (ln)					-0.502***	
					(0.145)	
# news G t-12 to t-4 (ln)					0.088	
					(0.075)	
# news E t-12 to t-7 (ln)						0.150**
						(0.070)
# news S t-12 to t-7 (ln)						-0.438***
						(0.074)
# news G t-12 to t-7 (ln)						-0.123**
						(0.058)
Constant	-2.935***	-4.410***	-0.350	-2.818*	-0.327	-5.091***
	(1.082)	(1.503)	(1.261)	(1.617)	(1.282)	(1.367)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,643,953	1,643,953	1,643,953	1,643,953	1,643,953	1,643,953
R^2	0.76	0.76	0.76	0.76	0.76	0.76

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Appendix Table 3: Baseline results with clustering at the stock level

This table presents the same linear regressions as in the baseline tests in Tables 2 and 3, with clustering of standard errors at the stock level rather than the firm level. The regression in Column (1) is the same as in Table (2), Column (2). Regressions in columns (2) to (6) are the same as regressions (1) to (5) in Table 3. *, and, respectively, ** and ***, indicate statistical significance at the 10%, and respectively, the 5%, the 1% level.

	Dependent variable: Invests in company stock					
	(1)	(2)	(3)	(4)	(5)	(6)
# news t-12 to t-1 (ln)	-0.263***					
	(0.060)					
# news E t-12 to t-1 (ln)		-0.146			0.141	-0.324*
		(0.096)			(0.084)	(0.171)
# news S t-12 to t-1 (ln)			-0.374***		-0.546***	-0.555***
			(0.104)		(0.161)	(0.126)
# news G t-12 to t-1 (ln)				-0.185***	0.065	0.082
				(0.048)	(0.078)	(0.063)
# news E × firm in polluting sector						0.549**
						(0.192)
Constant	-2.205**	0.478	-2.356*	-2.252**	-2.968*	-2.657
	(0.983)	(1.139)	(1.259)	(1.004)	(1.641)	(1.659)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,643,953	1,643,953	1,643,953	1,643,953	1,643,953	1,643,953
R^2	0.76	0.76	0.76	0.76	0.76	0.76

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Appendix Table 4 – Heterogeneity across ESG pillars (amount invested)

This table presents the same linear regressions as in Table 3, with the natural logarithm of one plus the amount invested in the stock fund as the dependent variable.

	Dependent variable: Amount in company stock (ln)				
	(1)	(2)	(3)	(4)	(5)
# news E (ln)	-1.159**			1.122**	-2.618***
	(0.517)			(0.456)	(0.935)
# news S (ln)		-3.002***		-4.140***	-4.216***
		(0.532)		(0.896)	(0.721)
# news G (ln)			-1.614***	0.262	0.402
			(0.318)	(0.488)	(0.376)
# news E × firm in polluting sector					4.416***
					(1.230)
Constant	12.480	-10.270	-11.130	-16.920	-14.420
	(10.810)	(9.559)	(10.520)	(11.600)	(12.520)
Controls	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes
Year-Month FE	Yes	Yes	Yes	Yes	Yes
Observations	1,643,953	1,643,953	1,643,953	1,643,953	1,643,953
R^2	0.74	0.74	0.74	0.74	0.74

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Appendix Table 5 – Heterogeneity across S-type sub-categories (amount invested)

This table presents the same linear regressions as in Table 4, with the natural logarithm of one plus the amount invested in the stock fund as the dependent variable.

	Dependent variable: Amount in company stock (ln)				
	(1)	(2)	(3)	(4)	(5)
# news labor & human rights (ln)	-1.943**			-0.788	-0.494
	(0.870)			(0.728)	(0.914)
# news working conditions employment & social discrimination (ln)		-2.227***		-2.233***	-1.945***
		(0.451)		(0.716)	(0.596)
# news communities & local participation (ln)			-1.445***	0.315	1.503
			(0.472)	(0.734)	(1.181)
# news E (ln)					-0.069
					(0.543)
# news G (ln)					-1.324
					(0.840)
Constant	0.041	-27.050**	-4.064	-28.130**	-27.460**
	(11.280)	(12.010)	(12.960)	(11.000)	(12.970)
Controls	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes
Year-Month FE	Yes	Yes	Yes	Yes	Yes
Observations	1,643,953	1,643,953	1,643,953	1,643,953	1,643,953
R^2	0.74	0.74	0.74	0.74	0.74

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Appendix Table 6 – Investor characteristics (amount invested)

This table presents the same linear regressions of the decision to invest in stock funds proposed by employers on ESG performance as Table 6, except that the dependent variable is equal to the natural logarithm of one plus the amount invested in the stock fund.

	Dependent variable: Amount in company stock (ln)					
	(1)	(2)	(3)	(4)	(5)	(6)
# news (ln)	-2.070***	-1.973***	-1.726**	-2.126***	-2.070***	
	(0.338)	(0.385)	(0.827)	(0.336)	(0.336)	
Female × # news	-0.140					
	(0.253)					
Age between 30 and 40 × # news		-0.065				
		(0.110)				
Age between 40 and 50 × # news		-0.172				
		(0.210)				
Age above 50 × # news		-0.268				
		(0.384)				
Age between 30 and 40		-0.027				
		(0.256)				
Age between 40 and 50		0.233				
		(0.477)				
Age above 50		0.575				
		(0.886)				
Assets in Q2 × # news			-0.290			
			(0.502)			
Assets in Q3 × # news			-0.414			
			(0.879)			
Assets in Q4 × # news			-0.832			
			(1.628)			
Invests in equity × # news				0.039		
				(0.051)		
Invests in equity				-0.026		
				(0.125)		

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Invests in SRI × # news					-0.128*	
					(0.074)	
Invests in SRI					0.450***	0.431***
					(0.164)	(0.106)
# news E (ln)						1.151**
						(0.452)
# news S (ln)						-4.103***
						(0.900)
# news G (ln)						0.240
						(0.489)
Invests in SRI × # news E						0.139
						(0.193)
Invests in SRI × # news S						-0.374***
						(0.128)
Invests in SRI × # news G						0.184
						(0.116)
Constant	-9.178	-8.948	-9.804	-8.523	-9.611	-17.780
	(8.552)	(8.490)	(8.720)	(8.479)	(8.503)	(11.490)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,643,953	1,643,953	1,643,953	1,643,953	1,643,953	1,643,953
R^2	0.74	0.74	0.74	0.74	0.74	0.74

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Appendix Table 7: Stock returns and the geography of news

This table replicates Table 7, Panel B, splitting news by their geographical origin (local or foreign).

	(1)	(2)	(3)	(4)	(5)
	MoM stock return	1Y stock return	2Y stock return	3Y stock return	4Y stock return
# news E France last month (ln)	0.022				
	(0.016)				
# news S France last month (ln)	-0.022				
	(0.014)				
# news G France last month (ln)	-0.003				
	(0.013)				
# news E last month (ln)	-0.011				
	(0.010)				
# news S last month (ln)	-0.007				
	(0.008)				
# news G last month (ln)	0.003				
	(0.008)				
# news E France last 12 months (ln)		0.122*	0.010	-0.002	0.037
		(0.064)	(0.046)	(0.032)	(0.025)
# news S France last 12 months (ln)		-0.052	-0.004	-0.012	-0.032
		(0.070)	(0.032)	(0.036)	(0.022)
# news G France last 12 months (ln)		0.088*	0.008	0.007	-0.020
		(0.048)	(0.027)	(0.020)	(0.021)
# news E last 12 months (ln)		-0.032	-0.010	0.021	-0.005
		(0.042)	(0.029)	(0.022)	(0.023)
# news S last 12 months (ln)		0.004	0.025	0.011	-0.015
		(0.042)	(0.027)	(0.024)	(0.022)
# news G last 12 months (ln)		-0.110***	-0.033	-0.018	0.005
		(0.035)	(0.025)	(0.018)	(0.017)
Constant	0.555***	7.114***	4.234***	3.454***	2.574***
	(0.109)	(0.993)	(0.484)	(0.423)	(0.488)
Controls	Yes	Yes	Yes	Yes	Yes
Group FE	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes
Observations	1,056	1,056	1,056	1056	924
R^2	0.37	0.65	0.78	0.82	0.83

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Appendix Table 8: Stock returns and social news

This table replicates Table 7, Panel B, focusing on the impact on social news and their components on firms' stock returns.

	(1) MoM stock return	(2) 1Y stock return	(3) 2Y stock return	(4) 3Y stock return	(5) 4Y stock return
# news labor & human rights last month (ln)	-0.016**				
	(0.008)				
# news working conditions employment & social discrimination last month (ln)	0.002				
	(0.007)				
# news communities & local participation last month (ln)	-0.011				
	(0.010)				
# news E last month (ln)	-0.003				
	(0.011)				
# news G last month (ln)	0.006				
	(0.007)				
# news labor & human rights last 12 months (ln)		0.051***	0.077***	0.003	-0.024***
		(0.018)	(0.010)	(0.007)	(0.006)
# news working conditions employment & social discrimination last 12 months (ln)		-0.070***	-0.003	0.022***	-0.008
		(0.015)	(0.008)	(0.006)	(0.005)
# news communities & local participation last 12 months (ln)		0.030	-0.003	-0.024***	-0.002
		(0.023)	(0.012)	(0.009)	(0.007)
# news E last 12 months (ln)		0.008	-0.010	0.030***	0.007
		(0.022)	(0.012)	(0.008)	(0.007)
# news G last 12 months (ln)		-0.085***	-0.039***	-0.015**	-0.006
		(0.017)	(0.009)	(0.006)	(0.005)
Constant	0.565***	7.121***	4.013***	3.390***	2.653***
	(0.109)	(0.319)	(0.172)	(0.120)	(0.108)
Controls	Yes	Yes	Yes	Yes	Yes
Group FE	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes
Observations	1,056	1,056	1,056	1,056	924
R^2	0.37	0.64	0.80	0.83	0.83

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