Sustainable Investing: Evidence From the Field

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Abstract

We survey 509 equity portfolio managers from both traditional and sustainable funds on whether, why, and how they incorporate firms' environmental and social ("ES") performance into investment decisions. ES factors influence stock selection, engagement, and voting for over three quarters of investors, including nearly two-thirds of traditional investors. Financial considerations are a primary reason, even among sustainable funds. Few are willing to sacrifice financial returns for ES performance, largely due to fiduciary duty, and voting and engagement are mainly driven by financial considerations. A second reason is constraints. Fund mandates, firmwide policies, or client wishes caused 71% to make stock selection, voting, or engagement decisions that they would otherwise not have. Some of these actions had financial consequences, such as avoiding stocks that would improve returns or diversification; others had ES consequences, such as avoiding stocks whose ES performance they could have improved.

JEL classifications:

Keywords: Sustainable Investing, Responsible Investing, Socially Responsible Investing, Survey

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1. Introduction

Sustainable investing ("SI") – the practice of incorporating environmental and social ("ES") factors into investment decisions – seems to have become increasingly mainstream. In 2006, the United Nations established the Principles for Responsible Investment ("PRI"), signed by 63 institutional investors managing a total of \$6.5 trillion. By March 2023, this had grown to 4,841 investors with \$121 trillion. However, some investors may sign the PRI or introduce funds marketed as "sustainable" without genuinely practicing SI; others may incorporate ES factors even in traditional funds.

One way to study how mainstream SI has actually become is through archival research, investigating investors' portfolios (e.g. Gibson et al., 2022; Pastor, Stambaugh, and Taylor, 2023) or voting and engagement (e.g. Michaely, Ordonez-Calafi, and Rubio, 2024). However, data only documents the outcome of an optimization problem and not the underlying beliefs, objectives, and constraints that led to it. An investor might prefer stocks with good ES performance because it believes that ES is financially material but undervalued, views it as immaterial but correlated with material factors, or has non-financial objectives. Similarly, an investor might not engage on ES issues because it thinks they are financially immaterial, that engagement would be ineffective, or that it would crowd out non-ES engagement.

Understanding asset managers' beliefs, objectives, and constraints is particularly important to understand the effectiveness of the asset management industry in incorporating asset owners' ES preferences. Asset owners' objective function may be a weighted average of financial and ES goals. If asset managers have significant non-financial objectives, or have a purely financial objective but believe that most firms underinvest in ES, then the asset owner's ES objectives may be achieved. However, if asset managers are unwilling to sacrifice financial returns for ES performance, and if they

¹ "Sustainable investing" is sometimes referred to as "responsible investing." We use the former term throughout.

view most companies as investing in ES optimally, their likely impact on ES performance is limited – regardless of how many sign the PRI or launch funds marketed as sustainable.

This paper surveys equity portfolio managers across the globe on these issues. Our first focus is their *beliefs*, such as how material they view ES performance for firm value, whether they think ES performance is fully priced by the market (and, if not, why not), and whether they regard firms as typically over- or underinvesting in ES issues. The survey also elicits fund managers' *objectives* – are they purely financial, or do they put weight on ES performance? If the latter, what are their ES goals, and how do they trade them off with returns? The final focus is on whether investors' *actions*, such as stock selection, voting, and engagement, are affected by ES performance and why – due to investors' beliefs and objectives, or constraints such as fund mandates, firmwide policies, and client wishes?

We distributed the survey between November 2023 to mid-February 2024, receiving responses from 509 active equity portfolio managers (479 who completed every question). We targeted both managers of funds marketed as sustainable ("sustainable investors") and funds that are not ("traditional investors"). We received responses from 290 traditional and 219 sustainable investors. 223 of the funds were marketed in the US, the others predominantly in the EU and UK. Importantly, and in contrast to other surveys, we did not survey stock analysts or governance/sustainability specialists, instead focusing exclusively on portfolio managers who make investment decisions.

The answers reveal several interesting results, organized into four groups, that point to a more complex model of investor behavior than currently used in the academic literature.

Beliefs

Our first question asked respondents to rank the importance of ES performance (actual performance, not ratings) for long-term firm value relative to five other value drivers: strategy and competitive position, operational performance, corporate culture, governance, and capital structure. ES performance received the lowest average support, with 73% ranking it fifth or sixth; its average

ranking was lowest even among sustainable investors. Notably, ES performance ranks significantly below governance ("G"), even though ESG factors are often bundled together; below corporate culture, another intangible; and slightly below capital structure, even though the latter is irrelevant in perfect capital markets.

The low ranking of ES performance does not mean that portfolio managers view it as irrelevant. Many free text entries emphasize that all value drivers are interlinked, that ES performance can affect the firm's competitive position or operational performance, and that deficiencies in any of the value drivers are a concern. Others indicate that poor ES performance can be a signal of other problems, and that specific ES issues are highly material in specific industries. Thus, many portfolio managers have a nuanced view of ES that emphasizes granularity, omitted variables, and interactions with non-ES value drivers.

ES performance's low ranking also does not imply that investors view it as immaterial in absolute terms. We asked respondents to rate the financial materiality of ES performance on eight dimensions. 85% of respondents (including 78% of traditional investors) rated at least one ES issue as material. Both investor types view ES performance on employee and customer-related issues as most important, potentially because they are internalized even in the absence of regulation. More sustainable than traditional investors view environmental issues as material.

We next turned from long-term value to long-term returns, to study views on market pricing. 73% of sustainable investors expect good ES performers to deliver positive alpha, and a notable 45% of traditional investors agree. Unexpectedly, by far the most popular reason is that ES performance is correlated with other factors that improve shareholder returns, rather than mattering directly. The second is that ES is valuable but the market fails to price it in. Investor short termism and unawareness of the financial materiality of ES were deemed more important than insufficient availability or quality of information. There is even greater similarity in the two investor types' expectations for poor ES

performers, with 61% (67%) of traditional (sustainable) investors predicting negative alpha. This suggests that some traditional investors view ES as a hygiene factor, where poor performance matters more than good performance.

We then asked investors whether firms in their investment universe over- or underinvest in the eight ES issues from a shareholder value perspective. For all eight, the modal response was that they invest at the optimal level, yet for each issue more than 40% of investors believe that firms either over- or underinvest; across all issues, 68% of investors believe that companies overinvest in at least one (most commonly greenhouse gas emissions), and 51% believe that they underinvest in at least one (most commonly ecological impacts). The most supported reasons for overinvestment are pressure from the media, the public, employees or investors; underinvestment is attributed to investor or company short termism. These responses explain why investors are selective in their support of shareholder proposals and their engagements; many believe that companies are managing most ES issues at close to the optimal level.

Objectives and constraints

Our next set of questions asked about investors' objectives and the constraints they operate under. Only 27% of investors (24% traditional, 30% sustainable) would tolerate companies sacrificing even one basis point of annual shareholder return for ES performance; many (including sustainable investors) explained that fiduciary duty prevents them from doing so. This contrasts models where investors have objective functions that assign significant weight to social value. While plausible for retail investors, it does not describe professional asset managers constrained by fiduciary duty. Instead of having an objective function that trades off social value against financial value, fund managers take ES considerations into account largely due to constraints or as a means to deliver financial returns.

71% of investors (61% of traditional, 84% of sustainable) report that ES constraints such as firmwide policies, fund mandates, and client wishes led them to make different stock selection, voting,

or engagement decisions than they otherwise would. The most frequent consequences were that investors had to avoid stocks that they believed would improve returns or diversification; in at least 41% and potentially up to 77% of cases, these constraints reduced financial returns. Paradoxically, ES constraints sometimes led investors to take actions that reduced their ES impact, such as not investing in ES laggards whose performance they could have improved.

These responses suggest that the industry does not readily partition into traditional funds with a purely financial objective and sustainable funds with both financial and social objectives, nor into unconstrained traditional and constrained sustainable funds. Instead, both types of funds have a dominant financial objective but face a range of formal and informal ES constraints in pursuing it. Since these constraints are imposed either by the funds or their clients, one may wonder why they exist. One explanation, reinforced by our interviewees, is that they are a second-best solution to a principal-agent problem. It may be infeasible to write a contract requiring asset managers to maximize their asset owners' weighted objective over ES and returns. Instead, asset managers offer funds with mandate constraints that they believe incorporate clients' principal ES concerns. When selecting a sustainable fund, each client is choosing its constraints plus the manager's ability to maximize returns subject to those constraints, rather than its objective function. A model of sustainable investing with delegated asset management that features such an equilibrium has, to the best of our knowledge, not yet been written.

Actions

Our third set of questions investigated how ES considerations affect investor actions: stock selection, voting, and engagement.

Stock selection: 77% of investors (66% of traditional, 91% sustainable) often or very often incorporate ES performance into stock selection. The reasons, however, differ. For sustainable funds, the fund mandate is most important, followed by alignment with client values, and firmwide policies.

These three constraints ranked higher than "to improve fund returns" or "to avoid downside risk." For traditional funds, the two financial reasons are most important, followed by the three constraints.

Despite these differences, financial reasons cause a majority of both investor types to regularly use ES performance in stock selection: 74% of sustainable and 51% of traditional investors do so to avoid downside risk, improve returns, or reduce volatility. Avoiding downside risk is a more common reason than improving expected returns, and much more important than reducing volatility. Impact (affecting firms' cost of capital or rewarding / penalizing companies for ES performance) is less important, mattering for just 20% of traditional investors and a minority of even sustainable investors (41%).

Portfolio manager beliefs are even more important than mandate type in determining how ES is used in stock selection. Investors who expect good ES performers to outperform in the long-term ("ES believers") are much more likely to select stocks based on ES factors to improve returns or manage risk (83% for sustainable funds and 65% for traditional funds) than "ES skeptics" who do not hold that belief (49% for sustainable funds and 39% for traditional funds). Therefore, while ES-based actions required by constraints are determined mainly by the nature of the mandate, ES-based actions taken in pursuit of returns are determined mainly by beliefs.

Voting: Consistent with the importance of fiduciary duty, only 27% of investors (24% of traditional, 31% of sustainable investors) have voted for a shareholder proposal that was even slightly negative for shareholder value, even though 78% have supported proposals that were neutral for shareholder value. Such voting, especially for proposals with negative value implications, is driven more by constraints than the proposal's expected impact on society. The effect on other companies owned by the investor is least important, suggesting limited support for "universal owner" motivations.

Engagement: 76% of investors (64% of traditional, 92% of sustainable investors) have engaged with companies to improve their ES performance, motivated primarily by the expected impact on shareholder value. Marketing motivations such as concerns for the fund's sustainability rating and

reputation are seen as least important. The main reasons why some investors never engage are their small stake and the costs of engagement, consistent with standard cost-benefit analysis. These responses suggest that asset managers are unwilling to undertake ES engagement that is not in their clients' financial interests. For both sustainable and traditional funds, ES believers are around 20 percentage points more likely than ES skeptics to engage, again emphasizing the importance of investor beliefs as well as mandate types in determining the extent of ES integration.

Specific ES issues

We finally asked investors whether and why they take into account carbon emissions or board diversity, two ES issues that receive significant attention. Despite their differences (diversity is a social issue whose effects are mainly internalized by the company, emissions are an environmental issue whose effects are mainly externalities), the responses are similar and neither is considered of high importance. The most common reason for considering either factor is its impact on society. Consistent with prior responses, reducing downside risk or complying with fund mandates, firm policies, and client values are more important reasons than improving returns. Investors believe that emissions may lead to lower returns and diversity to higher returns, in contrast to academic research that shows the opposite or no link. In free-text fields, investors explain that they consider multiple forms of diversity, while academic research typically focuses on demographic diversity.

Additional conclusions

We can draw four broader conclusions from the results. First, the asset management industry is unlikely to lead the charge in improving the ES performance of firms in aggregate. Most investors do not place significant weight on ES objectives beyond what is required to deliver financial returns, nor do they believe that firms are systematically underinvesting in ES issues. This may explain why academic research generally finds that SI has a limited impact on companies' ES performance (see Heath et al. (2023) for a causal study and Kölbel et al. (2023) and Gosling (2024) for overviews). This

need not be because asset managers are greenwashing or shirking, but because they are bound by fiduciary duty and believe that most companies are investing in ES at close to the optimal level.

The second is that aggregate differences between traditional and sustainable investors are smaller than commonly believed, and assumed by many models. Both types recognize the priority of financial returns and fiduciary duty, with similarly low proportions willing to sacrifice financial returns for ES performance or to vote for ES proposals that are even slightly negative for shareholder value. Both face ES-related constraints that have consequences for their portfolio composition. Many of their beliefs are also similar. Over three quarters of both types view at least some ES issues as financially material; the majority often tilt their portfolios based on ES performance to improve risk-adjusted returns and engage with companies to improve ES performance. Both types rank ES performance low relative to other value drivers.

The third insight is the large heterogeneity of beliefs, and of actions driven by beliefs (rather than preferences), which do not polarize neatly across traditional vs. sustainable lines. For example, 45% of traditional investors expect good ES performers to deliver positive alpha, 44% expect no alpha, and 11% expect negative alpha. These beliefs affect behavior, with ES believers much more likely to select stocks and engage with companies based on ES factors than ES skeptics. While hard ES constraints are determined by sustainable mandates and firmwide policies, ES integration into the investment process is driven more by portfolio manager beliefs. This contrasts prior research that attributes differences in investor behavior to different preferences, and suggests that it may be fruitful to incorporate heterogeneous beliefs into future models of sustainable investing. Overall, whether a portfolio manager acts as "traditional" or "sustainable" depends more on their beliefs and constraints than fund labels.

The fourth conclusion is the need to better understand how asset managers reflect, or fail to reflect, their asset owners' preferences. Giglio et al. (2023) and Heeb et al. (2023) provide evidence that at

least some retail investors care about ES performance and Bauer and Smeets (2023) give examples of pension fund beneficiaries that also do so. The vast majority of traditional and sustainable asset managers, however, prioritize financial returns. ES performance affects their investment decisions because of ES constraints, or because they view ES performance as a predictor of returns. It is an open question whether self-selection of asset owners with different ES preferences to managers with different ES constraints and beliefs achieves asset owners' objectives.

Relation to the literature

This paper is related to several literatures. The closest is to other surveys of investor behavior. Amel-Zadeh and Serafeim (2018) study how investors use ES information, but not their beliefs, motives, or constraints. They also do not differentiate between ES performance (a company's impact on wider society) and ES risks (society's impact on the company). It is not surprising if investors take risks into account; as Edmans (2023a) argues, doing so is investing, not ES investing. Our questions focus exclusively on ES performance, because the debate surrounding SI is on whether ES performance benefits shareholder returns or is at their expense, and on whether investors are willing to sacrifice returns for ES performance.

Krueger, Sautner, and Starks (2020) survey institutional investors on their perceptions of climate risk and actions taken to mitigate it. We study multiple ES issues and focus on ES performance, rather than risk. In contrast to our findings, their respondents' most popular motives for incorporating climate are reputation and moral or ethical obligations, rather than financial returns. This may be because most of their respondents are senior executives, analysts, and ES specialists; only 21% are portfolio managers.

² Among sustainable investors, the former is often referred to as "impact" and the latter as "dependency." We do not use these terms as they may not be familiar to non-ES investors. In addition, "impact" may suggest that this survey is about impact investing, and cause non-ES investors to quit the survey, believing it is not applicable to them.

Giglio et al. (2023) survey retail investors, who do not face constraints such as fiduciary duty, firm policies or fund mandates. Most of their respondents expect ESG stocks to underperform, and the majority of ESG-oriented retail investors are motivated by ethical considerations or climate hedging, in contrast to the professional investors in our sample. McCahery, Pudschedl, and Steindl (2022) investigate SI behavior among private equity and venture capital investors. Bancel, Glavas, and Karolyi (2023) study how finance professionals incorporate ES factors into firm valuation rather than on how asset managers practice SI. Bauer et al. (2024) survey investors on their beliefs about climate risk pricing and how these relate to their return expectations.

Focusing on investor behavior other than SI, McCahery, Sautner, and Starks (2016) survey investors' choice between exit and voice in the pursuit of financial objectives. Gompers et al. (2020) investigate how venture capitalists make investment decisions, and Edmans, Gosling, and Jenter (2023) study how investors influence CEO pay. Away from investors, an influential literature starting with Graham and Harvey (2001) surveys corporate managers; see Graham (2022) for an overview.

A broader literature uses archival research to study fund managers' stock selection, voting, and engagement, surveyed by Edmans (2014), Edmans and Holderness (2017), and Dasgupta, Fos, and Sautner (2021) for traditional investors, and Matos (2020) and Starks (2023) for sustainable investors.

2. Motivation and Methodology

2.1 Surveys and Archival Research

The standard empirical methodology is archival research. This has several advantages, such as large datasets, objectivity, and the ability to control for multiple factors. However, it also has limitations. First, archival research can only document outcomes, not the underlying objectives that led to those outcomes. While objectives are almost always unobservable, this is a lesser concern in many finance settings as there is either a single objective (such as shareholder value) or two dominant

objectives (investors care about risk and return, workers about wages and leisure, and consumers about price and quality) with a reasonably clear trade-off (forgoing one hour of leisure yields the hourly wage). Investors' objectives are unknown, they may have multiple, and it is unclear how they trade them off, or whether they even perceive a trade-off. Similarly, outcomes do not shed light on the constraints that led to those outcomes.

Second, it is difficult to measure determinants of SI behavior. Unobservability is a problem in most areas of economics, but may be a particular concern for SI since some determinants are broader than the firm in question. For example, investors may engage because of the likely effect on wider society or other companies in their portfolio. Third, even if an unambiguous empirical proxy can be found, a statistical relationship could have multiple interpretations. A finding that ES ratings drive stock selection could be because investors believe ES ratings predict financial returns, are trying to lower highly-rated companies' cost of capital, or are affected by constraints.

Fourth, surveys allow us to investigate the relative importance of various determinants. Archival research typically does so by putting them all in the same regression, but the one with least measurement error may end up most significant. For the same reason, our chosen set of responses were guided by what academic research and our beta-testers suggested are most important, irrespective of whether they could be measured by empiricists. For example, we include the investor's stake size as a potential determinant of engagement so that we can compare it against less observable factors. Finally, archival studies may be limited by the "academic paradigm," i.e. restricted to what existing research suggests is relevant. A survey that is first beta-tested with practitioners, and then includes free text fields and is accompanied by interviews can uncover new objectives, constraints, and determinants of SI that had not previously been documented.

The survey methodology itself has limitations, which we have endeavored to attenuate. First, respondents may interpret questions differently to how we envisaged. We engaged in extensive beta-

testing of the survey and provide free-text fields after each question to detect any persistent misinterpretations. Second, the Friedman (1953) "as if" critique warns that investors may act in accordance with a theory but be unable to articulate it. Conversely, participants may choose a response because it sounds logical. We thus gave short, simple responses that exclude the underlying rationale; while including it might more precisely identify the mechanism, a respondent might choose an option because it seems logical, or reject it because it is too intricate.

Third, respondents may misreport their answers. In addition to guaranteeing anonymity, we tried not to ask questions that would likely lead to misreporting, such as whether personal values influence their use of ES factors (which may conflict with fiduciary duty). Fourth, practitioner responses may be limited by the options that we offer, and we may have unintentionally skewed them towards finding that ES matters. Thus, we endeavored to be symmetric in our responses, rather than only including those we thought practitioners would select. For example, when asking for reasons for why good ES performers may generate alpha, we included the possibility that ES performance is negative for firm value, but excessively discounted. We allowed for the possibility that ES constraints lead to an improvement in financial returns as well as a reduction.

A final limitation is generalizability. One potential concern is geographic generalizability, given that views on ES may differ across regions. We conducted a global study, with wide representation from funds marketed in the US, EU, UK, and elsewhere. We found remarkably few geographic differences. A second concern is that the responses will be skewed towards sustainable funds, and thus unrepresentative of fund managers as a whole. We reached out to all funds, including those not marketed as sustainable. Even so, there may be a selection bias in that predominantly sustainable funds respond. We will shortly describe how we addressed this concern with the text in our invitation email. We also report results separately for traditional and sustainable funds where there are meaningful differences in responses.

2.2 Survey Design and Delivery

We benefited from extensive feedback on our questions before launching the survey. We presented

the questions to academic audiences and sent them to leading researchers. We beta-tested the survey

with both traditional and sustainable investors to ensure that they were interpreting the questions as we

intended, that the survey was not too long³, and that we were not missing key dimensions. All of these

beta tests occurred via Zoom, where the participants answered the questions "aloud," so we could

observe how they were interpreting them.

The survey window was November 2023 to mid-February 2024. From Morningstar, we obtained

names of 8,312 portfolio managers for active equity funds marketed in the US, UK and European

Economic Area. We guessed their email addresses using standard email formats and internet research,

leading to approximately 7,000 emails with no returned error message. Estimates from email marketing

providers suggest that up to 50% of domains accept all emails without providing an error message,

even if the email is incorrect and undelivered; thus, the number of successful emails could be as low

as 3,500. We also distributed the survey via CFA UK and various regional CFA Societies in the US,

associations such as the Investment Company Institute, and our own networks. A sample invitation

email contained the following subject line and text (emphasis in original)⁴:

Subject: Academic survey of equity portfolio managers

³ Our target was 15 minutes; for the actual surveys, the median response time ended up being 17 minutes.

⁴ We employed variations of the sample depending on the recipient. For example, for UK investors, the subject line was "LBS/LSE academic survey of equity portfolio managers," since LBS and LSE are likely known to UK investors. Some

asset managers only run sustainable funds, and so we did not include the second sentence.

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I would be grateful if you were willing to participate in a 15-minute confidential academic survey on whether and how active equity portfolio managers incorporate environmental and social (ES) factors into investment decisions. We are equally interested in funds that are not marketed as "sustainable"/"ESG" as in funds with such a label, and in funds that do not consider ES factors as much as those that do. ... Please forward the link to other equity PMs in your firm or network who might be interested in participating. However, please do not forward it to sustainability professionals or stock analysts as this survey is only for equity PMs.

The text specified "active equity portfolio managers" to ensure that managers of passive funds (who do not engage in stock selection) or fixed income funds (who do not vote, and generally engage less) did not respond; we later describe a preliminary question that further ruled them out. The final sentence reiterated that the survey was only for portfolio managers; other investor surveys included stock analysts, who advise on investment decisions rather than making them, or governance specialists who do not value stocks.

We also emphasized how we were interested in funds not marketed as sustainable to reduce the selection bias describe earlier; the subject line referred to a survey of equity portfolio managers rather than a survey on SI, to reduce the risk that traditional investors deleted the email upon seeing the subject. A related concern is that, out of the traditional funds that respond, those who view ES as important are particularly likely to do so. We thus specified in bold that we were interested in funds that do not consider ES factors. Indeed, many of the free text responses expressed significant concerns about the incorporation of ES factors in investing. Thus, even if investors who feel strongly about ES are more likely to respond to such a survey, there seems no clear reason why investors with strong positive views will be more responsive than those with strong negative views.

To encourage responses, we donated £100 for each completed survey (up to a total of £25,000) to respondents' choice of the American, British, or International Red Cross (we also gave the option of no donation) and offered respondents the option to receive a draft of the working paper before its public release. We administered the survey using the Qualtrics online platform, giving respondents a generic link to guarantee their anonymity. Except for the demographic questions, we randomized the order of responses within each question.

In total, we contacted between 3,500-7,000 fund managers directly; this excludes the number contacted through third party organizations, who may have also received the direct approach. We obtained responses from 509 investors; 479 answered every question.⁶ This corresponds to a response rate of 7-15%, compared to 4.3% for McCahery, Sautner, and Starks (2016) and 6.5% for Gompers et al. (2020). We then interviewed 12 respondents to explore the reasons behind their responses. The interviewees were selected because they filled in several free text responses and to obtain a diversity of views.

After the introductory page of the survey that thanked the participants and guaranteed their confidentiality (see Appendix A), the second page stated the following:

This is a survey on how active equity investors consider companies' environmental and social ("ES") performance. Please interpret ES performance as:

- The effect of companies on the environment and society, not the effect of the environment or society on companies
- Companies' actual effects on the environment and society, not greenwashing, marketing, or disclosure activities to enhance ES metrics or ratings

The answer to some of the questions might be "it depends." Please answer for your investment universe – the companies eligible for selection in your fund – in aggregate. If you run multiple funds, please answer considering one specific equity fund throughout.

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⁵ To opt in to receive the draft, after completing the survey, participants were invited to add their email address. This final step was optional; approximately half the respondents filled it in. Many respondents were not identifiable from their email. ⁶ The results presented are based on all responses, but do not change materially if we only include respondents who answered every question.

The first bullet point highlighted that this survey focused on ES performance, the effect of companies on the environment and society (sometimes known as "impact materiality") rather than ES risks, the effect of the environment and society on companies (sometimes known as "financial materiality"). This is because it would not be too surprising if investors took ES risks into account, since by definition they affect the company. What is less clear, and what much of the debate on SI concerns, is whether ES performance is financially material to a company, or instead distracts from financial returns. For the same reason, the survey focused on ES factors rather than ESG factors, since there is a reasonable consensus that governance affects firm value.⁷

Table OA1 presents summary statistics on the respondents. 451 respondents manage active equity funds, with 58 running active multi-asset funds including equities. This question also allowed the respondent to select "index equity," "fixed income," or "other", if any of these were chosen, the survey ended. The modal respondent (40%) manages a fund with over \$2 billion in assets under management, the highest out of five size brackets that we offered. This corresponds to the top decile of funds by size in the target fund population in Morningstar, suggesting good representation from the largest funds that matter most for asset prices. However, over half of our responses were from smaller funds, which is important since an investor's capacity to analyze ES factors may depend on fund size.

The modal respondent (44%) owns between 30-50 stocks, suggesting a high-conviction portfolio that allows them to consider ES factors if they wish to. 219 run funds marketed as responsible, sustainable, ESG, SRI, or ethical; the remaining 290 manage traditional funds. 223 of the funds were

⁷ We asked respondents about their investment universe rather than their portfolio, due to endogeneity issues with the latter. For example, even if ES and financial performance are not linked in general, some investors may select stocks in which they are linked. Still, it may be that sustainable investors consider their investment universe to differ from traditional investors, for example if they are constrained not to invest in fossil fuel stocks. If so, some of our results are more striking: for example, sustainable investors believe that greenhouse gas emissions are more financially material than traditional investors, even though some may not be able to invest in fossil fuel stocks where materiality is high.

^{8 &}quot;Other" might refer to a commodities or real estate fund, and the respondent was also excluded.

marketed in the US, 311 in the EU, 264 in the UK, and 170 elsewhere, ensuring broad geographic coverage. 9 59 of the funds were for retail clients only, 111 for institutional clients only, and 339 for both. 416 pursued a fundamental investment style, 55 a quantitative one, and 38 selected "other;" most free-text responses referred to a combination of both styles.

2.3 Presentation of Results

In what follows, we report aggregate results across all survey respondents. We also stratified the responses into traditional and sustainable funds and report the results separately for each fund type when there were meaningful differences. Even in those cases, the differences were smaller than we expected. We also conducted stratifications between US vs. non-US funds, and funds above vs. below \$2 billion in size. We found remarkably consistent results; the differences between US vs. non-US funds are largely explained by differences in the prevalence of traditional and sustainable funds. We will highlight the few responses for which there were meaningful differences but do not separately tabulate results.

Many questions are scored on a Likert scale, for example "Why do you think companies underinvest in some ES issues" with 0 representing "not at all important" and 4 representing "very important." This allows the mean response to be compared to the lowest option of 0. We will often report results in the form "x%/y," where x is the percentage of respondents who selected 3 or 4, i.e., important or very important (which we will together refer to as "important" for brevity), and y is the average rating. For questions with an identifiably neutral response, we scaled the result to -2 to +2, so that the mean score can be compared to the neutral score of 0; x is then the percentage of respondents

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⁹ These numbers add up to more than the total number of respondents because some funds are marketed in multiple regions. We focused on where funds were marketed rather than domiciled since domicile tends to be concentrated in a small number of locations driven by tax or regulatory factors (many European funds are domiciled in Ireland and Luxembourg). Where the fund is marketed is most relevant as it affects client wishes, fund mandates, and reputational concerns.

who selected 1 or 2. The response labels for each question are shown in the relevant table. Also to avoid cumbersome prose, we will sometimes say "our results suggest that x" rather than "our results suggest that investors believe that x;" however, it is important to bear in mind that our survey only reports investors' perceptions. Again for brevity, we will sometimes refer to "sustainable funds" rather than "portfolio managers who run funds marketed as sustainable."

3. Beliefs

3.1 The importance of ES performance

3.1.1 ES performance relative to other factors

Our first set of questions concern the financial materiality of ES performance. The first question investigates this in relative terms. Specifically, we ask participants to "Rank the following by their importance for the long-term value of companies in your investment universe in aggregate." The six options offered were: strategy and competitive position, operational performance, corporate culture, governance, ES performance and capital structure. We included capital structure as it is irrelevant in a Modigliani-Miller world. While capital markets are far from perfect in the real world, it is unclear how substantial the deviations are; for example, both the US and EU have imposed limits on the tax deductibility of interest, and evidence for the trade-off theory of capital structure is mixed (Graham and Leary, 2011). We included governance ("G") since this is sometimes included with ES factors in the umbrella term "ESG;" however, the economic arguments for aggregation are unclear (see, e.g., Edmans, 2023a). We included corporate culture since this is also an intangible factor, but one with clearer financial materiality than some ES factors.

Table 1 illustrates the results. Out of the six options offered, ES performance had the lowest average rank, with a mean score of 5.01. 73% of respondents ranked it fifth or sixth. For sustainable funds only, these figures were 4.49 and 56%, with ES performance still ranking last. While some ES funds are marketed on the grounds that ES performance is highly material to firm value, this does not seem to be reflected in strong differences in how they rank ES factors; as we show later, their more distinctive feature may be their constraints. Only 13% of aggregate respondents rank ES factors in the top half of the available options.

Returning to the aggregate responses, the second lowest average rank was capital structure with 4.13, indicating a sizable gap. 11 Corporate culture and governance had average rankings of 4.12 and 3.71, respectively. Only 29% of respondents ranked governance fifth or sixth, highlighting that ESG factors should generally not be combined together. Investors thus see ES performance as less important than other intangible factors (corporate culture), other ESG factors (governance), and factors that do not matter in perfect capital markets (capital structure). The most popular responses were strategy and competitive position (1.67) and operational performance (2.36).

These results suggest that, even if ES performance is financially material, it is nothing special compared to other determinants of long-term value and should not be prioritized over them if financial value is the goal (see also Edmans, 2023a). A traditional investor wrote that "Any good company will do well on ES evaluation too, but not all good ES companies will do well on the other factors;" a sustainable investor highlighted that "A high ESG score/ranking will not rescue a poor business model;" and another noted that "If we don't think a business has a good strategy/competitive position, it won't make it into the fund regardless of how good their ES is." There are substantial efforts to help

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¹⁰ Indeed, the average orderings for all six options were identical across the four subsamples of US traditional, US sustainable, non-US traditional, and non-US sustainable funds, except that traditional US funds ranked capital structure fourth and culture fifth whereas the three other types had the reverse ranking.

¹¹ For sustainable funds, the average rank for capital structure was 4.41. This is not statistically significant from the 4.48 for ES performance, but the differences between ES performance and all other responses is statistically significant at the 1% level.

investors assess ES performance, through ratings, mandatory reporting, and voluntary disclosure standards. However, from a financial returns perspective, better ways to assess other drivers of performance may be even more important.

Since this is a relative ranking, these results do not mean that our respondents view ES performance as financially immaterial in absolute terms. Many free-text fields said that all six factors are important. One traditional investor wrote that "all these items are important in driving long-term value creation ... it is difficult to drive long-term value if you are doing any one of these items poorly;" another that "all of these factors are important and failure on any one of them could preclude any investment;" a third that "these are all non-negotiable criteria we require from an investment candidate;" and a fourth that "although we can roughly rank the factors, the overall answer is that all factors need to be considered for any long term investment."

The low relative ranking for ES also masks how many investors view ES in granular terms, as indicated by numerous free-text responses. Even excluding G, they do not think different ES dimensions should be lumped together as some matter more than others. In addition, the ES factors that matter vary significantly across industries. Notably, many respondents stressed this even though our instructions noted that "The answer to some of the questions might be "it depends" and asked for aggregate responses; some found an aggregate response difficult because the importance of ES is so situation-specific.

This granularity contrasts the common research approach of taking an aggregate ES(G) score and correlating it with firm outcomes in a pooled sample across many industries. Different ES factors may

and would rank high on the list."

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¹² As an EU/UK sustainable fund manager noted: "Hard to generalise and there is a lot of overlap / interplay between these categories. This answer would also be different by sector, because of the different risks facing each industry." A UK traditional fund manager wrote: "In reality all of these features are deeply interlinked, so it's artificial to separate them out. Our answers would also vary to a degree with sectors. For example, in mining, having a social licence to operate is crucial

matter more than others, and different factors may matter in different industries.¹³ This also means that the mixed evidence of a link between aggregate ES scores and financial performance (see Matos (2020) and Starks (2023) for surveys) does not mean that ES is immaterial; instead, any link may be sufficiently granular that it cannot be picked up by aggregate studies.

Another common free text response was that it is difficult to disentangle ES performance from the five other determinants. Rather than being directly material, ES performance may be indirectly material through affecting other factors such as operational performance and corporate culture, or they may be indicators of other factors; for example, ES may signal strong G. A traditional investor stated that "many of these factors are interlinked (for example, a company with a good strategy, corporate culture and governance is likely to have a better approach to ES performance and capital structure)" and another that "These are all important and related. For example, it is unlikely to have a strong strategy and competitive position without also having strong ES and governance." A sustainable investor wrote "I view operational performance and ES performance as linked and mutually reinforcing ... I would therefore prefer to think of ES performance as a facet of operational performance." Despite these challenges, there was a high degree of consistency in how investors ranked these factors, and significant differences between the six items.

This has nuanced implications for the use of control variables in ES studies. On the one hand, that ES may be an indicator highlights the importance of including controls when attempting to identify a causal effect of ES on financial performance or attaching appropriate caveats when controls are missing. On the other hand, that ES may affect firm value through other drivers of performance highlights that "bad controls" may be a concern. This suggests that empirical researchers should report results both with and without controls.

¹³ While ESG rating agencies claim to weight ESG issues by their materiality for a company's industry, these weightings are the agencies' subjective judgement and may not be correct; indeed, they differ across agencies (Berg, Kölbel, and Rigobon, 2022).

One final view commonly expressed in the free text responses is that ES performance matters less in isolation than when combined with good or bad performance on other dimensions. Again, this contrasts the common approach of regressing firm outcomes on ES plus some control variables. In future research, It may be interesting to interact ES with certain control variables rather than only including it separately.

3.1.2 ES performance in absolute terms

Although ES ranked below other value drivers, this does not mean that it is unimportant in absolute terms. The next question disaggregates ES performance into eight individual dimensions and asks respondents to assess their absolute importance. Table 2 asks "How material is ES performance, on the following dimensions, to how you assess the long-term value of companies in your investment universe in aggregate?", with 0 representing "immaterial" and 4 representing "highly material."

Investors do consider ES issues to be material. 84% of respondents (including 78% of traditional investors) rate at least one ES issue as material. The highest average ratings were for employee well-being (59%/2.59) and customer health, welfare, and privacy (54%/2.53). We specified "employee well-being" rather than, for example, "employee engagement" as the former is more clearly a measure of ES performance (impact materiality); the latter has a clearer link to firm value. For similar reasons, we specified "customer health, welfare, and privacy" rather than "customer satisfaction." Despite this, these factors ranked highest, potentially because there are clear reasons for why impact materiality may ultimately manifest in financial materiality: effects on employees and customers are often internalized. Pollution and waste management (57%/2.49) and greenhouse gas emissions (54%/2.50) were also considered material by more than half of respondents, perhaps due to current and likely increasing future regulations.

The final four performance dimensions are less likely to be fully internalized. Treatment of suppliers was rated 44%/2.31 with ecological impacts (including biodiversity and water usage) scoring

45%/2.23, potentially because the importance of biodiversity has only recently been recognized and the pathway to regulation is less clear. Two factors had an average rating below the mid-point of 2: community impact (33%/1.99) and demographic diversity (25%/1.68). The latter is consistent with the mixed evidence that demographic diversity improves financial performance (Fried (2021), Edmans, Flammer, and Glossner (2024)).

This was a question where responses significantly differed between sustainable and traditional investors. Sustainable investors viewed every ES factor as more material, with mean scores differing by 0.24-0.95. The lowest differences (0.24-0.33) arose for the most directly-relevant constituencies of employees, customers, suppliers, and communities. The biggest differences (0.63-0.95) arose for the environment (greenhouse gas emissions, ecological impacts, and pollution), where regulation is arguably needed for internalization, and demographic diversity. Traditional investors ranked employee and customer factors above all environmental factors. Sustainable investors ranked all environmental factors above customers, and greenhouse gas emissions and pollution above employees.

These different responses, and the free text fields, indicate that investors distinguish between different ES dimensions, rather than lumping them all together. Even among ES dimensions that had similar average scores, there were differences in how individual investors rated them. For example, while "greenhouse gas emissions" and "pollution and waste management" had almost identical average scores of 3.50 and 3.49, 44% of investors assigned different ratings to them – despite it being easy to view greenhouse gas emissions as another form of pollution. Similar to Table 1, several free-text fields also highlighted that the relevance of the different dimensions is highly context specific. For example, one investor wrote: "The importance of these factors varies greatly according to the type of business. For example, for a professional services business, greenhouse gas emissions are largely irrelevant ... whereas employee well-being would be very important; for an industrial manufacturer or in the extractive industries, GHG emissions would be much more important."

Overall, the responses to these initial questions suggest that practitioner views are more nuanced and granular than the approaches taken by some academic studies. Future research that takes granularity, context, and interactions into account may be particularly fruitful.

3.2 The link between ES performance and shareholder returns

While the first set of questions studied the link between ES performance and long-term firm value, the next set explores its relationship with long-term shareholder returns, which takes market pricing into account. Table 3 enquires "Do you expect good ES performers to typically outperform or underperform in long-term risk-adjusted total shareholder return? (-2=strongly underperform, 2=strongly outperform)." The mean score is 0.57; 57% of respondents answered "outperform" or "strongly outperform," with 8% predicting underperformance, and 35% being neutral. This view contrasts the mixed academic evidence on the alpha to ES leaders. When asked about this contrast, interviewees highlighted two explanations. The first is that our respondents focus on the ES issues that are material to the company when defining "good ES performers", in contrast to the aggregate approach taken by most academic studies. The second is that academic research typically focuses on ESG ratings, but our respondents assess ES performance through conducting their own research, focusing on the most material dimensions and qualitative factors unlikely to be in the price. Several interviewees explained how ESG ratings depend on the resources a company devotes to answering ESG questionnaires rather than actual performance.

There were marked differences between traditional and sustainable investors, with 45% of the former and 73% of the latter believing that ES leaders will outperform. However, the difference in viewpoints were smaller than one might expect, with a mean score of 0.36 (significantly positive at the 1% level) among traditional investors. 27% of sustainable investors do not believe strong ES performance leads to alpha and indeed 4% anticipate negative alpha.

To the 285 investors who answered +1 or +2, we then asked "Why do you think good ES performance leads to long-term outperformance? (-2=strongly disagree, 2=strongly agree)." Table 4, Panel A, illustrates the results. Surprisingly, "Good ES performance improves long-term value but the market underprices it in the short term" only ranked second (74%/0.91). The highest response (95%/1.43) was: "Good ES performance is correlated with other characteristics that cause long-term outperformance." Interestingly, this was also most popular (94%/1.36) among sustainable funds. This response is consistent with some of the comments accompanying Table 1, that ES may not matter so much per se, but is an indicator of other drivers of performance. Several respondents noted that ES signals that the firm is generally well-managed and forward-thinking. One traditional investor wrote that strong ES performance indicates "a proactive management ... who are on the 'front foot' reinvesting in their business, shedding less attractive categories;" another that "it shows competent management with a willingness and ability to adapt to changing business environment and investment climate;" and a third that "it shows a listening management willing to do the right thing for the stock price." A sustainable fund manager wrote that a company should "change and be ahead of the change of consumer habits towards more positive ES outcomes;" another that "this is due to a correlation, not causation dynamic. Management teams that effectively minimize the negative environmental impact of their company's operations tend to manage their operations more effectively and generate a higher return on invested capital;" a third that it is "not so much due to their direct impact but more from the fact it reveals a sensitivity to their environment and potentially a higher ability of sensemaking;" and a fourth that "we find ES management as a proxy for management quality overall and the willingness for companies to take short term pain in exchange for long term gains."

Others thought that ES can have direct effects, rather than simply being a signal of other factors, but these direct effects are only valuable in conjunction with other factors. One traditional manager wrote: "for shares to outperform, they should have good ES performance *and* strong competitive

positioning, attractive growth prospects, excellent financial management etc. ES on a standalone basis is unlikely to drive outperformance;" another described ES as "necessary rather than sufficient condition for outperformance."

By far the least popular response was that "Good ES performance is immaterial or negative for long-term value, but the market excessively discounts good ES performers" (4%/-1.11). 56% of respondents (average score of 0.55) believe that "Increasing investor demand for good ES performers will drive their prices up over time": that investor tastes, rather than company fundamentals, drives ES alpha (see Pastor, Stambaugh, and Taylor (2021) for a model). However, as one traditional investor noted, "there is a limit to the outperformance from investor demand, otherwise it implies continuous multiple expansion, which is unrealistic."

To the 177 participants who agreed or strongly agreed with "Good ES performance improves long-term value but the market underprices it in the short term," we asked "Why do you think the market fails to fully price in ES performance?" and the results are in Table 4, Panel B. The most popular option was "the market is too short-termist" (88%/1.36), with "The market does not recognize that ES performance is financially material" ranking third (72%/0.79). Responses relating to sufficiency (44%/0.41) and relevance (46%/0.43) of ES information scored lowest. While there are significant efforts to mandate ES reporting, or develop ES disclosure standards, these answers suggest that lack of information is not the main barrier to prices fully incorporating ES performance (see also Edmans, 2011).) Some free-text responses highlighted that a greater quantity of information, or even greater reliability, may not have a large effect. A sustainable investor wrote: "What is easy to measure, may not matter; and what is hard to measure matters the most. The disclosed ES information is data that is easy to measure and therefore disclosed. What actually matters (corporate culture, flat hierarchies, meritocracy, genuinely equal opportunities, fairness) is much harder to actually measure – these are often cultural aspects." A traditional investor responded that "the 'ES performance' people are looking

for / measuring are simply not relevant, e.g. water usage at a shopping mall, compared to what really drives value. So we aren't pricing in the 'performance' because it's just not relevant."

The response that most supported the importance of information was "Disclosed information is not comparable across companies" (79%/1.01). Free-text fields and interviewees suggested that this is not so much because investors believe that information can and should be made comparable, but because ES information is inherently incomparable (for example, due to its dependence on a company's business model) and investors are only able to analyze comparable information. A traditional investor wrote that "investors are not well trained to discern beyond the check boxes."

The 39 investors who believed good ES performance leads to long-term underperformance in Table 3, and the 174 who perceived no link between ES performance and future returns, were separately asked why they believed this. The results are reported in Table 4, Panels C and D. In the former case, the most popular response was "Good ES performance is immaterial for long-term value but the market overprices it" (56%/0.51). Free-text fields included "Too much focus on ES indicates management is worried about the wrong things" and " "Good ES performance" is generally non-economic and needlessly destroys shareholder value." In the latter case, views were broadly evenly split between the 55% of respondents believing that "ES performance is material for long-term value and the market fully prices it in," and the 45% responding that "ES performance is immaterial for long-term value and the market recognizes this."

While Tables 3 and 4 studied good ES performers, Table 5 asks "do you believe that bad ES performers typically outperform or underperform in long-term risk-adjusted total shareholder return?" 64% believe that bad ES performers will underperform or strongly underperform, 29% predict no link, and 7% forecast outperformance. Free-text fields gave analogous reasons to the outperformance of ES leaders: both that bad ES performance directly matters by increasing the risk of regulatory action, media scrutiny or customer backlashes, and indirectly because it is a sign of poor management. A

sustainable investor wrote that "this [underperformance] is likely triggered by significant controversial events (for instance lawsuits, fines, bad press) rather than consistent underperformance through time," which is echoed by some subsequent questions where investors respond that ES affects downside risk.

Recall that traditional and sustainable investors gave markedly different responses for ES leaders, with 45%/0.36 of the former and 73%/0.85 of the latter predicting outperformance. Here, the responses are more similar, with 61%/-0.67 (67%/-0.73) of traditional (sustainable) investors forecasting underperformance of ES laggards. Free-text fields and interviews highlighted two explanations for the greater symmetry. One is at the company level: some traditional investors view ES as a "hygiene" factor that matters more on the downside than the upside for company performance: failure to achieve a sufficiently level of hygiene can be highly detrimental, but exceeding this level may have limited benefit. The second is at the market pricing level: ES leaders can become overpriced, in part due to semi-automatic buying by some funds. In an interview, a sustainable investor explained that a "poster child for ESG" will nearly always be overvalued due to its "ESG sexiness".

3.3 Firm-level investment in ES

Our next set of questions study whether investors believe that companies typically overinvest or underinvest in ES performance and why.

Table 6 investigates: "How much do companies across your investment universe typically invest in improving ES performance on the following dimensions, compared to the level that would maximize long-term shareholder value? (-2=significantly underinvest, +2=significantly overinvest)." We included the same eight dimensions as in Table 2 ("How material is ES performance, on the following dimensions ...") – having asked about their financial materiality, we now explore their optimality. The responses were similar across traditional and sustainable investors and so we only report aggregate results.

The highest responses were for greenhouse gas emissions (44%/0.34). This is consistent with concerns that they are at least partially an externality, and evidence that carbon emitters earn higher stock returns through earnings outperformance rather than risk (Atilgan et al., 2024). As a result, firms that invest in emissions reduction may be doing so for environmental impact rather than shareholder value maximization.

The seven other options had average scores between -0.01 and +0.21; the modal response for all eight options was "0: neither over nor underinvest" and for five of the eight dimensions, this was also the majority response. Only 12% believe that there is significant underinvestment (i.e., answered -2) in even a single ES issue and only 18% believe there is significant overinvestment in even a single issue. This suggests that most fund managers believe that, overall, companies invest in ES optimally for shareholder value. This may explain the declining support for ES shareholder proposals, and increasing concerns that excessive investor engagement can lead to micromanagement: for example, the proportion of global ES resolutions that succeeded fell from 21% in 2021 to 3% in 2023.¹⁴

However, it is far from the case that investors believe that all companies are dealing with all issues perfectly, or are too uninformed to assess whether managers are over- or under-investing. Only 13% of investors believe companies invest optimally in every ES issue. For every issue, at least 40% of investors believe that managers are not investing optimally. As a result, ES engagement should be targeted on specific ES themes, rather than sweeping. These views also suggest that league tables ranking asset managers by how frequently they support shareholder proposals¹⁵, or assessing the quality of engagement by the asset management industry using the number of shareholder resolutions filed or passed, or the average voting support, may be misleading.¹⁶

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¹⁴ See "Voting Matters 2023" by ShareAction. The report studied 257 ES proposals voted on by 69 of the world's largest asset managers.

¹⁵ See, for example, "Ranking asset managers' voting performance" by ShareAction.

¹⁶ See Gantchev and Giannetti (2021) for the problems with "gadfly" shareholder proposals.

32% of investors cited at least one ES dimension on which companies overinvest and at least one on which they underinvest, suggesting, consistent with Table 2, that many investors are able to distinguish between different ES dimensions, rather than viewing ES as a homogenous entity or exhibiting halo effects where viewing a company as overinvesting on one dimension leads to them making similar assessments on other dimensions.

We asked the 68% of investors who responded +1 or +2 to at least one ES dimension: "Why do you think companies overinvest in some ES issues?" Table 7, Panel A shows that the most common reason (79%/3.02) was "The public, the media, or employees pressure them to overinvest," with "Investors pressure them to overinvest" (70%/2.76) second. In free text fields, many investors expressed the concern that these outside parties micromanage companies and pressure them to invest in immaterial issues. An interviewee explained how some investors do so due to their own reporting requirements: some regulations require sustainable funds to demonstrate that they are having impact, and they can do so if companies improve quantifiable measures of ES performance even if irrelevant.¹⁷

We asked the 51% of fund managers who selected -1 or -2 to at least one ES dimension: "Why do you think companies underinvest in some ES issues?" Table 7, Panel B shows that the most popular responses were "investors are too short-termist" (70%/2.82) and "companies are too short-termist" (66%/2.72). It is interesting that respondents are more willing to blame investors than companies, since any response bias might work the other way. These results are consistent with Table 4, Panel B, where "the market is too short-termist" was the most popular explanation for why it does not fully price in ES factors. Taken together, these results suggest that good ES performance is not fully incorporated in the short-term stock price, and so companies may not be immediately rewarded for their ES investment. While ES targets in pay could be one way to overcome this, compensation incentives were viewed as

¹⁷ This investor gave the example of a company that is working on a brain-computer interface to help people with spinal cord injuries to walk. This company creates substantial benefits to society, but another investor had to disinvest because its ESG rating (according to one rating provider) was too low.

a driver of overinvestment in ES (44%/2.23) and underinvestment (46%/2.34) to a similar degree. In both cases, free text comments argued that ES metrics in pay were not based on material factors and could be gamed. Thus, one remedy might be to use long-term CEO pay; indeed, Flammer and Bansal (2017) find that doing so has a positive causal effect on ES performance. One investor commented that "companies don't need to incentivise ES issues specifically if they pay managers based on long-term TSR outcomes."

3.4 Summary

Our questions on investor beliefs yield the following conclusions:

- 1. Sustainable investors believe that ES leaders deliver positive alpha and ES laggards deliver negative alpha. Traditional investors are more likely to agree with the latter than the former, but overall hold surprisingly similar beliefs to sustainable investors. The most common explanation of positive alpha is that ES is correlated with other factors that improve shareholder returns. The second is that the market fails to price in the value of ES, due to being short-termist or failing to recognize the financial materiality of ES, rather than insufficient quantity or reliability of information.
- 2. However, most investors believe that ES performance is less material for a company's long-term value than five other drivers, including governance, corporate culture, and capital structure. This aggregate result masks how investors view certain ES dimensions as highly material for some companies. This highlights the importance of granularity in academic research: to focus on particular ES dimensions in particular industries, and to separate out positive and negative ES performance.
- 3. Investors do not view ES performance as mattering in isolation. Sometimes it manifests in other outcomes that directly improve financial returns; other times it signals performance on other

value-relevant dimensions. It may have a particularly large effect when interacted with other factors.

- 4. Investors believe that ES performance on employee and customer-related issues are most material to long-term value, potentially because they are internalized even in the absence of government actions. Demographic diversity is perceived as least material.
- 5. Investors believe that, on average, companies invest in ES at the optimal level for shareholder value, which may explain limited support for ES shareholder resolutions and cautions against sweeping investor engagement on ES. However, at least 40% believe that firms over- or underinvest in a particular ES issue. The most common reason for overinvestment is pressure from the media, the public, employees or investors; underinvestment is attributed to investor or company short-termism.

4. Objectives and Constraints

4.1 Objectives and trade-offs

Our next question explores whether investors have objectives other than shareholder value. We asked "How much long-term risk-adjusted total shareholder return would you tolerate a company sacrificing to improve its ES performance?" Table 8 illustrates the results. Only 26% of respondents would tolerate any sacrifice (i.e., of 1 basis point or above); even for sustainable investors, this proportion was 30%. Just 5% of sustainable investors and 2% of traditional investors selected the highest sacrifice of 50 basis points or more, but even 50 basis points is a relatively small effect on the cost of capital, which is unlikely to have a major impact on corporate decision making. Gormsen and Huber (2023) find that over 60% of managers leave their investment appraisal discount rate unchanged for five years and only slowly and partially reflect changes in their perceived cost of capital into discount rates. In the context of climate change, Pedersen (2023) finds that a 50 basis point change in

the cost of capital is equivalent to a carbon tax of only \$5 per tonne; a 50 basis point change in the cost of equity will change the weighted average cost of capital by less than 50 basis points. Even if a company's entire shareholder base were willing to accept such a sacrifice, the effect on investment would be limited. As one sustainable investor wrote, "given that in emerging markets most stocks move by more than 50 bps most days, these numbers are generally rounding errors."

Out of the 24 free-text comments accompanying a strictly positive sacrifice, seven said they would only accept a trade-off in the short term, even though our question referred to "long-term risk-adjusted total shareholder return." Six free-text comments stated that, despite their answer, there should be no trade-off for the right investments (which we will elaborate on later), and three said the sacrifice was imposed by mandates. Only five out of the 24 comments unequivocally stated a willingness to sacrifice long-term returns. Thus, the 27% of respondents stating that they would sacrifice returns is a wide upper bound for the proportion of investors willing to tolerate a sacrifice that it is not required by the mandate, i.e. who act as if their objective function is a weighted sum of financial returns and social impact.

33% of respondents explicitly stated "zero – I would not tolerate any sacrifice," with multiple free-text fields highlighting fiduciary duty, even among sustainable investors. Traditional investors wrote "I'm a fiduciary, with clear investment directives;" "we are fiduciaries and cannot deviate from our mandate unless so instructed;" "we have a fiduciary duty to our clients. We could never accept lower risk-adjusted returns out of the goodness of our hearts;" and "I manage a mutual fund. A mutual fund is an investment vehicle designed for the public. Its purpose is to maximize risk-adjusted returns for the public. It would be unethical and illegal if I deviated from that purpose. It is my fiduciary duty." A sustainable investor wrote "the answer for asset managers has to be zero long-term sacrifice. Ultimately we are managing other people's money." This attitude was particularly prevalent among traditional US funds, 54% of whom said they would not tolerate any sacrifice.

These results are interesting because many SI models assume that shareholders place significant weight on social objectives. While trade-offs between financial and social benefits may be possible for asset owners, many asset managers believe that it is inconsistent with fiduciary duty. Note that our question asked whether respondents would passively "tolerate" a sacrifice by companies. In betatesting, we asked a more active question, "How much long-term risk-adjusted total shareholder return would you sacrifice to improve ES performance?," but all of our beta-testers answered zero because such a sacrifice would violate fiduciary duty. Thus, the proportion of investors who would take actions that sacrifice financial returns, such as engaging with firms to make negative-NPV ES investments or subsidizing such investments – the actions often analyzed by SI models – is likely lower than the proportion willing to tolerate sacrifices by companies. This does not mean that such models are invalid, but that they may only apply to a limited set of investors. Similarly, policymakers and the public often expect the asset management industry to solve societal issues such as climate change. However, constraints on fiduciary duty prevent them from doing so (see also Gosling and MacNeil, 2023), and so they should be realistic about the externalities that even sustainable investors can address.

The most common response, given by 40% of investors (35% traditional, 47% sustainable), was that "no sacrifice is necessary since there is no trade-off." This response rate may seem high, since ES is like any other investment and thus exhibits diminishing returns and trade-offs (Edmans, 2023b), and since 336 out of 493 (68%) of investors believe that managers overinvest in at least one ES dimension (Table 6). Several free-text fields qualify this response and suggest that investors do not believe that there is never any trade-off; rather, that there is no trade-off for particular types of ES investments undertaken within a reasonable range. For example, a sustainable fund manager wrote: "There might be a short-term sacrifice but our investment horizon is 5-10yrs and over this period the

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¹⁸ This was one of the few questions where there were differences across geography, with 27% of US traditional funds believing there is no trade-off vs. 43% for non-US traditional funds.

RIGHT investments should be return enhancing. I would not tolerate any sacrifice for investing in immaterial ES improvements or puff projects."¹⁹ Traditional investors argued that "The two should be aligned, if done well – after all, that is management's challenge", and "sensible spending would mean there was no trade-off. Extreme ES spending could however massively impact share prices."

Interviewees highlighted that there is no need for a trade-off since there is a sufficiently large set of available projects that improve both ES performance and financial returns. One sustainable investor acknowledged that trade-offs exist in theory, but any CEO who took actions to sacrifice shareholder returns would not survive as CEO, which is why she answered that there is no trade-off in practice. Another sustainable investor said that "You should not reduce my cash flows because of some corporate pet project. You're a capitalist enterprise so you need to run your company efficiently." He explained that no sacrifice is necessary because there are many projects that CEOs can invest in that improve both ES performance and long-term financial returns. A third pointed out that "there's always a way to do it sensibly, and to do it creating value for shareholders."

4.2 Constraints

Table 9, Panel A considers investor responses to "Have firmwide ES policies, your fund mandate, your clients' wishes, or concern for your reputation or sustainability rating ever caused you to do any of the following more than you otherwise would? Select all that apply." This question aims to study the effect of ES constraints on stock selection, voting, and engagement. 71% of respondents had experienced at least one consequence. This figure remains high, at 61%, for traditional funds and 52% for US traditional funds: strikingly, ES concerns affected their investment behavior despite not being

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¹⁹ Another potential explanation, which would not be in the free-text fields, is motivated reasoning: investors incorporate ES performance into investment decisions in part due to constraints, and then justify this by claiming there is no trade-off. If so, some of our later responses are particularly interesting as investors state that constraints caused them to take financially costly investment decisions that they otherwise would not have.

marketed as sustainable. One interviewee said that all institutional clients have ESG teams and will ask fund managers questions about ESG even if they run traditional funds.

By far the most common consequences of these constraints, each selected by approximately 30% of traditional and 50% of sustainable investors, were "avoid stocks we believed would outperform" and "avoid stocks that would improve portfolio diversification." This is consistent with 60% of investors in Table 8, Panel A, perceiving a trade-off between ES performance and returns. One sustainable investor wrote that the EU Sustainable Finance Disclosure Regulation gives "an incentive for asset managers to create the greenest products to win money (rather than selecting companies based on expected outperformance)." Another stated that "We have avoided stocks we believe could outperform in the short term due to our sustainable investment mandate. For example, with a clean energy mandate our fund did not hold oil and gas companies in 2023, even though there was a clear argument as to why certain of these companies were well positioned for strong short term performance in the light of the macroeconomic and geopolitical environment."

25% of traditional and 32% of sustainable investors selected "engage with companies on ES issues that do not add shareholder value." Even if these issues were neutral (rather than negative) for firm value, engagement involves time and resource costs, as a future question confirms. One sustainable investor wrote that "firmwide commitments such as NZAM or UK Stewardship Code mandate engagement, which then becomes something we 'must' do rather than do because we believe an engagement will add shareholder value."

Interestingly, ES constraints are sometimes detrimental not only to financial returns, but also to ES performance – the very outcome that ES constraints aim to improve. For example, 33% of sustainable investors report that they had to "avoid owning ES laggards whose ES performance we could have improved" and 30% had to "avoid owning ES leaders in a laggard industry." The former hinders investors from engaging; as the manager of an Article 9 (sustainable) fund wrote, "our biggest gripe

with the SFDR Article 9 classification is that, according to our lawyers, it does not allow to invest in 'ESG improvers,' which is really where any ESG alpha should come from"; a traditional investor wrote: "exclusion [is] by far the easiest way to show a cleaner portfolio, even though it changes nothing for the environment or the world at large." The latter prevents them from rewarding companies for ES improvements ex post, thus incentivizing them ex ante (Edmans, Levit, and Schneemeier, 2023). 20% respond that constraints led to a "focus on visible dimensions of ES performance at the expense of more important ES issues." One sustainable investor wrote "Greenhouse gas emissions ... are the best-reported ES data point out there but in many cases nowhere close to the most material for each company."

This result suggests that ES constraints, paradoxically, may hinder ES performance. The natural question is why firms or their clients impose ES constraints given these consequences. One reason is frictions associated with delegated portfolio management. Most SI models feature asset owners with an objective function of α *financial returns + $(1-\alpha)$ *ES objectives (which may be impacts or tastes). In reality, most asset owners select asset managers, and they are unable to contractually induce asset managers to maximize that objective function since most ES objectives are non-contractible. A second-best solution is thus for funds to have mandates or be constrained by firmwide policies, which allows asset owners to select funds that approximate their objectives. Even though asset managers know that they may reduce their financial returns or social impact ex post, they may help attract clients ex ante. Indeed, several interviewees said that mandates are critical for marketing and attracting fund flows. One pointed out that "mandates are commercial. They segment clients and grow AUM which you couldn't if you had an off-the-shelf fund", and another that a mandate is a differentiator in a crowded market.

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²⁰ Almazan et al. (2004) ask a related question in the context of financial performance: why fund managers have mandates that potentially constrain them from maximizing financial returns (such as a mandate to invest only in the U.S.).

When pressed on why mandates are valuable for marketing even though they do not allow clients to achieve their objective function, interviewees cited two related reasons. One is that clients "know what they're getting." Given the difficulty in contracting on outcomes, such as externality reduction, mandates instead restrict the action space, such as investing in fossil fuels – the familiar trade-off between rules and discretion. A second is that clients are agents themselves, and their ultimate principals may not understand nuances such as how divestment prevents engagement. Thus, if a fund has a fossil fuel-free mandate, a pension plan can invest in this fund and communicate it to beneficiaries. One interviewee explained how clients "want you to maximize return subject to not making their life a misery." For future research, it would be fruitful to develop models of delegated sustainable investment management, analogous to the literature on delegated investment management with only financial objectives (see Dasgupta, Fos, and Sautner (2021) for a survey). For example, theories could explore how effective constraints are in ensuring that asset managers maximize asset owners' (or their principals') objective function.

A second reason for constraints, stressed by several interviewees, is not to attract more clients but a particular type of clients: to improve matching between funds and clients. If clients share a fund manager's values, then they will not take up the fund manager's time asking why he has not invested in (say) fossil fuels despite them outperforming, and are likely to show greater patience with short-term underperformance. Thus, even though constraints cannot force a fund manager to maximize α *financial returns + $(1-\alpha)$ *ES objectives, they may attract clients with such an objective function.

A third reason, particularly for firmwide policies, is to reduce reputational risk. An interviewee explained that, if white phosphorus ends up killing children in a warzone, then a fund family investor who owns a company that produces white phosphorus may suffer substantial reputational damage – even if the white phosphorus is a tiny percentage of its revenues, and even if the fund family's ownership had no impact on white phosphorus production. The public will not evaluate impact, only

holdings, and "no amount of return will compensate for this." Thus, his firm has a policy prohibiting any fund from owning a company that produces any amount of white phosphorus.²¹

"None of the above" was the response given by 35% of investors, (39% of traditional and 16% of sustainable investors). In free-text responses, many explained that their only mandate is financial returns and their funds are not marketed as sustainable so reputational concerns were not an issue. An interviewee explained that "it [the mandate] is a constraint but it does not constrain us, because it is what we would do anyway." For sustainable investors who do not perceive constraints, sustainable investing appears to be an investment style, similar to value or growth investing, that the fund manager believes will improve long-term returns.

Since Table 9, Panel A combined multiple ES constraints to explore their aggregate effect, in Panel B we disaggregate them. We ask "What caused you to take these actions? Select all that apply" to the 327 investors who selected at least one consequence in Panel A. Client mandates are a more important ES constraint for sustainable funds (70% of respondents) than traditional funds (34% of respondents). Perhaps more surprising is the importance of firmwide policies and client wishes for traditional funds, cited by 52% in both cases, similar to the response rates of 63% and 45% for sustainable funds. Firms may have policies on, for example, board diversity or carbon emissions which apply regardless of the fund mandate. Equally, clients may have ES wishes that fund managers seek to accommodate even if these are not formally expressed in the mandate. This illustrates the importance of factors beyond the fund label or even mandate in determining whether and how ES factors influence the manager's actions.

In Panel C, we ask the same 327 investors "What were the consequences of these actions for the risk-adjusted returns of your fund?" 41% of respondents (38% of traditional and 45% of sustainable

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²¹ This investor gave an example of an air conditioning company which generates a tiny percentage of revenue from selling white phosphorus to its country's ministry of defense, and is required to do due to a long term contract. The investor had to sell due to the firmwide policies.

funds) answered that there was a small, moderate, or large reduction in returns, with twice as many sustainable as traditional funds reporting moderate or large reductions. Combining these response rates with Panel A shows that 38% of sustainable investors faced constraints that reduced returns versus 23% of traditional investors. 35% of traditional and 38% of sustainable investors responded the impact on returns was "impossible to quantify." Nearly all interviewees who gave the latter response explained that the constraint reduced returns in expectation, but the probability distribution of outcomes included the potential for an increase. For example, being unable to invest in fossil fuels lowers expected returns, but if the oil price drops, it may end up increasing realized returns. Thus, up to 72% of traditional investors and 83% of sustainable investors (77% overall) have had to sacrifice financial returns, either in actuality or in expectation, to satisfy ES constraints. 20% of all respondents reported no impact on returns, and 3% claimed an improvement in returns. Out of these two sets of investors, by far the most commonly-reported action (45%) was "Engage with companies on ES issues that do not add shareholder value," which has little direct negative financial consequence.

4.3 Summary

Our questions on investor objectives and constraints yield the following conclusions:

- 1. Only 24% (30%) of traditional (sustainable) funds are willing to tolerate companies sacrificing shareholder returns for ES performance. This casts doubt on the likelihood of many asset managers addressing externalities, as suggested by some models of sustainable investing and assumed by policymakers and the public.
- 2. 33% of asset managers stated that they would not tolerate the sacrifice of even 1 bp of return to improve ES performance. 40% believe that no sacrifice is necessary, at least for well-chosen projects.

- 3. 71% of investors reported that external or internal ES constraints caused them to take stock selection, voting, or engagement actions that they would not otherwise. For traditional investors, this proportion was 61%. The most frequent actions were avoiding stocks that they believed would outperform or improve portfolio diversification.
- 4. In at least 41% and up to 77% of cases, these actions may have led to a sacrifice of financial returns. Interestingly, constraints sometimes led investors to take actions that prevented them from improving or rewarding ES performance the very consequences that many ES constraints are designed to bring about.

5. Actions

The next set of questions investigates the extent to which ES considerations affect investor actions. Investors make three main decisions, stock selection, voting, and engagement, and we consider each in turn.

5.1 Stock selection

Table 10 asks: "Do you underweight poor ES performers / overweight good ES performers for any of the following reasons?" (0="never," 4="very often"). The responses show that ES performance matters for stock selection: 77% of investors (66% of traditional, 91% of sustainable investors) often under- or overweight stocks because of ES performance for at least one of the stated reasons. However, the motivations for doing so differ. This is a question where responses differed not only by fund label (traditional vs. sustainable) but also by the manager's beliefs (ES believers vs. skeptics). Therefore, in Table 10, in addition to the aggregate results, we show the mean scores and the percentage of respondents selecting 3 or 4 ("often" or "very often") for various sub-populations.

Sustainable investors are significantly more likely than traditional investors to over or underweight stocks based on ES factors for all of the reasons given. The most common reasons were the constraints

of fund mandate (75%/3.04), firm values or polices (60%/2.58), and client values (60%/2.56). This result is consistent with the importance of ES constraints documented in Table 9. Financial motivations of improving returns (57%/2.46) and avoiding downside risk (56%/2.40) are also important for sustainable investors. One sustainable investor wrote that: "We only make portfolio decisions based on financial returns" and another "Some institutional clients, privately, really don't care. It is all about the numbers." Marketing motivations of improving the fund's sustainability rating and reputation are less important motivations than financial returns or the hard constraints from mandates.

For traditional investors, financial motivations were most important (improving returns was rated 36%/1.80 and avoiding downside risk 40%/1.91). Interestingly, constraints, and in particular firm values or policies (34%/1.70) and client values (24%/1.65), were almost as important as financial returns. One traditional investor observed: "Our clients are a very mixed bunch. Some care a lot about ES and some don't care at all. But we basically try to appeal to both camps." This illustrates that ES constraints include not only the fund mandate but firmwide policies and soft constraints that may arise, particularly in institutional mandates, from interpretation of client values. For traditional investors, marketing motivations are not common drivers of stock weighting, scoring below 1.

Avoiding volatile stocks received a low score across all populations. Many models feature mean-variance investors, where downside risk is fully captured in lower expected returns and higher volatility. However, "to avoid downside risk" (40%/1.91 for traditional, 57%/2.40 for sustainable investors) was significantly more popular than "to avoid stocks that are volatile" (15%/1.11 for traditional, 23%/1.39 for sustainable investors) — investors are particularly concerned with underperformance, perhaps because this could cost them their job. This result is also consistent with prior results indicating that ES performance may be a hygiene factor, and the finding of Hoepner et al. (2024) that ES engagement reduces downside risk.

The least popular responses were reasons relating to impact on investee companies: rewarding or penalizing them for ES performance and affecting cost of capital – scored well below 2 even for sustainable investors and below 1 for traditional investors. The lowest-ranked response across all investors combined was "to affect companies' cost of capital" (13%/1.14). This could be because stock selection has a negligible effect on the cost of capital (Berk and van Binsbergen, 2024), or because firm investment decisions are relatively unresponsive to the cost of capital (Gormsen and Huber, 2023). Interviewees highlighted the former concern: they felt that their trading decisions have a very small effect on the market.

The last four columns of Table 10 split the results for the financial motivations into ES believers and skeptics. This split shows that beliefs matter more than the mandate for whether fund managers over- or underweight stocks for financial motivations. An ES believer managing a traditional fund is much more likely to over or underweight stocks to improve returns (53%/2.38) than an ES skeptic managing a sustainable fund (16%/1.44).

Overall, our results show that both traditional and sustainable managers seek to maximize returns subject to constraints. However, the manner in which they pursue those returns, and the role ES plays in this, depends on their beliefs. Some sustainable funds (particularly quantitative funds) apply constraints but do not integrate ES factors into the investment process beyond this, while traditional funds have few constraints but nonetheless view ES integration as a way to pursue financial returns.

5.2 Voting

Table 11, Panel A, explores two sets of questions: "Have you ever voted for a shareholder proposal when the proposal was even slightly negative for firm value?" and "Have you ever voted for a shareholder proposal when the proposal was neutral for firm value?" Only 27% of investors (24% of

traditional investors²² and 31% of sustainable investors) had ever voted for a proposal that was even slightly negative for shareholder value, while 78% of investors had supported a neutral proposal. In free-text fields and interviews, respondents highlighted that fiduciary duty constraints them from supporting negative proposals, and that clients do not pay them to destroy shareholder value.

We then asked investors who supported neutral or negative proposals why they did so, and Panel B illustrates the results. Consistent with earlier findings, ES constraints were the most common response. Out of those who had supported a neutral (negative) proposal, 65% (55%) did so "to be consistent with our firm's values or policies." The corresponding numbers for "to be consistent with our clients' values" were 49% and 52%; "to be consistent with our fund's mandate" was chosen by 52% and 49%. These considerations were even more important than "I expected it to have a positive impact on society" (41% and 33%), the first-principles justification for such voting. An interviewee explained how some fund managers want a "quiet life" and voting in a way that could be seen as inconsistent with the mandate, even if it is consistent with shareholder returns, would lead to lots of client questions. Free-text fields and interviews indicated that many ES proposals have negligible effect on shareholder value and so the benefits to society were a consideration, even for traditional investors. One such investor said: "Although we would not sacrifice value for a vote, it is very subjective as to whether it is value neutral or value enhancing - if we feel it will not harm but is good overall, then that is worthwhile. But subjective."

The least popular option was "I expected it to have a positive impact on other companies we own" (20% for neutral proposals and 16% for negative proposals). This suggests that few investors adopt a "universal owner" perspective where they induce a company to reduce its negative externalities, even if financially costly, to benefit other companies in their portfolio and thereby enhance financial returns overall. The percentage is similar (19% and 7%) when considering only funds owning more than 100

²² This is one of the few results that differed across geographies: this figure was 18% in the US and 29% outside the US.

stocks, the most diversified funds in our sample. Gosling (2024) presents legal and conceptual arguments for why universal owners cannot engage in such behavior, consistent with our findings. For all the options, the response rates between sustainable and traditional investors differed by under ten percentage points.

5.3 Engagement

We first asked respondents "Do you ever engage with companies to improve their ES performance?" Table 12, Panel A shows that 76% of investors did so. This frequency was 64% for traditional investors, even though their mandate is purely financial returns: thus, ES engagement is not the exclusive domain of sustainable funds. However, both the fund manager's beliefs and the nature of the mandate affect the prevalence of engagement to improve ES. 97% of sustainable ES believers engage to improve ES versus 53% of traditional ES skeptics. In the cross cases, 76% of traditional ES believers engage on ES versus 78% of sustainable ES skeptics. In other words, the fund manager's beliefs about whether ES creates alpha are as important as the mandate in determining ES engagement.

To the 365 investors who answered "Yes," we asked "What determines whether you engage with a company on an ES issue?" Panel B illustrates that the two most popular responses are "How much the issue affects long-term shareholder value" (84%/3.34) and "Our stake in the company" (62%/2.58). This is consistent with any model of shareholder engagement, where an individual shareholder's benefit from engaging is the shareholder value uplift multiplied by its stake in the firm. This highlights that the main motivation for ES engagement is financial performance. These responses were also popular among the 188 sustainable investors who answered "Yes" (83%/3.35 and 60%/2.52). "How much the issue affects wider society" ranked third among all investors (48%/2.32) and second among sustainable investors (58%/2.56); even among the latter, the difference with "how much the issue affects long-term shareholder value" is significant and highlights how sustainable investors remain

constrained by fiduciary duty. As one sustainable investor wrote, "as a firm we are very good at staying true to our promise to clients which is that everything we do is focused on long-term returns." Another said: "We only engage on ES issues if we believe that it will have a positive impact on shareholder value in the long term," and a traditional investor said that "Our clients and our firm care about the issue if it affects risk-adjusted returns."

The least popular options were "How much our sustainability rating would be improved by engaging" (18%/1.26) and "How much our reputation would be improved by engaging" (18%/1.42), consistent with earlier responses that reputational concerns and ratings are weaker constraints than firm policies, fund mandates, and client wishes. Indeed, "how much our firm cares about the issue" (48%/2.29) and "How much our clients care about the issue" (44%/2.27) ranked fourth and fifth.²³ A sustainable investor observed that: "Engagement has nothing to do with improving one's own fund's sustainability rating. It is simply good stewardship and exercise of fiduciary duty."

The 118 investors who have never engaged on an ES issue were asked "Why do you not engage with companies to improve their ES performance?" Again, economic reasons were the main justification. The first and third most popular responses were "Our stake in the company is too small to be effective" (56%/2.47) and "We can sell our stake if dissatisfied with ES performance" (53%/2.33), which indicate a low benefit to engagement, and the second was "the time, resource, and financial costs of engagement" (55%/2.43) which suggest a high cost. Interestingly, 17 sustainable investors had never engaged on an ES issue; by far the most common reason was "the time, resource, and financial costs of engagement" (71%/2.82).

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²³ Sometimes firm or client concerns can lead to hard rather than soft constraints that motivate engagement. As the manager of a traditional fund explained: "sometimes there is a need to improve the company's ESG rating so that it doesn't flag negatively. Because when it flags negatively ... then our policies or our clients' policies may say we can't invest in that company. Usually the company is in a position to improve its rating by doing some relatively small things."

The least popular response was "We have insufficient information about ES performance" (21%/1.52), consistent with earlier responses that investors are generally well informed about ES issues, and suggesting that regulatory efforts to increase information disclosure may not increase engagement. In contrast with the literature on managerial entrenchment, "management is unlikely to be responsive" had weak support (29%/1.74). While standard engagement may threaten the CEO's private benefits, such as high salaries, weak governance, or a preference for the quiet life, following the recommendations of ES engagement may erode firm value but benefit executives' reputation, which was a reasonably popular response for why firms overinvest in some ES issues (Table 7, Panel A).

5.4 Summary

Our questions on how ES considerations affect investor actions yield the following conclusions:

- Constraints from fund mandates, firmwide policies or client wishes significantly influence stock selection, voting, and engagement for investors in aggregate. For sustainable investors, these constraints are at least as important as financial considerations. They also have meaningful influence for traditional investors, although financial motivations are more important.
- 2. Financial considerations matter, with 74% (51%) of sustainable (traditional) investors often adjusting company weights based on ES factors for financial reasons. Investors view reducing downside risk as a marginally more important driver of stock selection than improving returns, and significantly more important than reducing volatility. The least important motivations were those that sought to impact firm behavior, such as reducing the cost of capital.
- 3. The extent to which investors adjust company weights based on ES factors in pursuit of financial returns is determined more by their beliefs than mandate. ES believers are much more likely to adjust weights based on ES factors to enhance returns or manage risk than for ES

skeptics, regardless of whether they manage a sustainable or traditional fund. Therefore, while ES constraints are determined by the nature of the fund mandate, the extent to which the fund pursues ES integration is determined by the fund manager's beliefs.

- 4. Only 27% of investors have voted for a shareholder proposal that was even slightly negative for shareholder value, consistent with the importance of fiduciary duty, while 78% have supported a neutral proposal. Constraints are more important drivers than the proposal's likely impact on society. The effect on other companies owned by the investors is least important.
- 5. 76% of investors in aggregate, and 64% of traditional investors, have engaged with companies to improve their ES performance. The most important considerations are the likely effect on shareholder value and the investor's stake in the firm; these financial determinants remain important when focusing on sustainable investors alone. Concerns for sustainability rating and reputation were deemed least important. For both traditional and sustainable funds, ES believers are 20-25 percentage points more likely than ES skeptics to engage to improve ES performance.
- 6. The investors who have never engaged on ES issued cited limited benefits (too small a stake and the ability to sell if dissatisfied with ES performance) and high costs. Financial considerations are thus important determinants of both engagement and non-engagement.

6. Specifics

Our final set of questions focus on carbon emissions and board diversity, two ES issues that receive particular attention. We consider each in turn.

6.1 Carbon emissions

Table 13 asks investors "Do you consider a company's carbon emissions in your investment decisions for any of the following reasons?" In contrast to suggestions that investors care about carbon

risk for financial reasons (e.g. Bolton and Kacperczyk, 2021), the only response out of 11 that received an average rating above the midpoint of 2 is "Carbon emissions are bad for wider society" (47%/2.11). This is consistent with our prior result that carbon emissions are the ES issue that investors are most willing to sacrifice financial returns for, and Krueger, Sautner, and Starks (2020) who find that investors incorporate climate risks primarily for non-financial reasons. However, given the Table 10 finding that few investors believe that they can affect the cost of capital, this response is likely due to a distaste for investing in stocks that harm society, rather than because investment decisions can reduce emissions. As one traditional investor wrote, "Carbon emissions ARE bad for wider society. I just don't believe that investment decisions of public funds, even exclusions, have any impact." A sustainable investor said in an interview that clients have a distaste for emitting firms, and that disinvesting would have no social impact; the only effect would be that "they [other investors] get the return and I don't."

For traditional investors, no response received an average rating above 2. For sustainable investors, "carbon emissions are bad for wider society" was also top (61%/2.62); "our clients track the carbon footprint of our portfolio" (58%/2.52), "our firm's values or net zero policies influence the carbon footprint of our portfolio" (54%/2.40), "higher carbon emissions increase downside risk" (54%/2.36), "our fund's mandate constrains the carbon footprint of our portfolio" (54%/2.32) and "our fund's reputation depends on the carbon footprint of our portfolio" (42%/2.12) also scored above 2. This is one of the few questions with meaningful differences between sustainable and traditional funds. It likely arises because many sustainable funds have a mandate that includes carbon emissions; in addition, carbon emissions are arguably the most common ES issue against which they are assessed.

The least popular response was "Higher carbon emissions increase returns" (4%/0.69), with "Higher carbon emissions lower returns" being markedly more popular (22%/1.45).²⁴ These results contrast the academic literature, which documents a positive or no relationship between emissions and returns. However, the financial motive of "higher carbon emissions lower returns" is significantly below 2 for both traditional (16%/1.23) and sustainable investors (31%/1.75), and less popular than many reasons resulting from constraints. This echoes earlier findings on the importance of ES constraints. Also notably, returns are significantly less popular than downside risk for both sets of investors. This echoes earlier findings that portfolio managers may not be mean-variance optimizers, but are particularly concerned with underperformance.

6.2 Board diversity

Table 14 enquires "Do you consider a company's board diversity in your investment decisions for any of the following reasons?" Even though board diversity is a quite different issue to carbon emissions – it is a social (S) rather than environmental (E) topic, and the effects are predominantly on the firm in question rather than wider society – the responses are similar to Table 13, although diversity is considered less important than carbon emissions overall. While demographic diversity has received most attention from boards, investors, and regulators, we did not restrict our question to this aspect of diversity to allow investors to express their views on the dimensions that are important.

For investors in aggregate, the only response that received an average rating above the mid-point of 2 was "board diversity is good for wider society" (41%/2.02), with the joint second response being "board diversity reduces downside risk" (34%/1.78). For sustainable investors, "board diversity is good for wider society" (51%/2.31) also ranked first, with "our firm's values or policies require us to

²⁴ We deliberately specify "returns," not "risk-adjusted returns" as for prior questions, as Bolton and Kacperczyk (2021) argue that higher returns to emitting companies are compensation for mispriced risk.

consider board diversity" (51%/2.25) second and "board diversity reduces downside risk" (46%/2.10) fourth. In general, constraints received less support than for carbon emissions, consistent with the greater attention paid to the latter, and fund mandates to exclude fossil fuels or meet decarbonization pathways being more common than board diversity mandates. However, constraints still exist for some funds: as the manager of an Article 9 (sustainable) fund wrote: "Gender diversity at board level is one of the 16 principal adverse indicators according to the SFDR." As with carbon emissions, traditional investors gave lower responses across the board than sustainable investors.

For investors in aggregate, the other joint second response was "board diversity increases returns" (31%/1.78) with "board diversity lowers returns" (3%/0.67) ranking a clear last. The return impact of diversity was viewed as more important than carbon emissions (the corresponding response for "higher carbon emissions lower returns" was 22%/1.45). These findings might seem surprising given the academic research is that board diversity generally has no effect on returns, and a negative effect if it is mandated: see Fried (2021) for a survey. However, free-text fields consistently highlighted how investors view diversity in experience, skills, and cognitive style to be significantly more important than demographic diversity, which is why they expected it to be correlated with returns. This echoes the findings of Table 3, where a majority of investors believe that ES leads to alpha despite the mixed academic evidence: they measure ES performance more accurately than the ESG ratings used by typical academic studies.²⁵

6.3 Summary

Our questions on carbon emissions and board diversity yield the following conclusions:

1. Investors' views on the link between carbon emissions/board diversity and shareholder returns contrast academic findings. They are more likely to believe that higher emissions lead to lower

²⁵ Edmans, Flammer, and Glossner (2024) and Fos, Jiang, and Nie (2024) study broader forms of diversity.

than higher returns, and that board diversity leads to higher than lower returns, in contrast to academic research.

- Despite the perceptions of a link to shareholder returns, the most common reason for considering carbon emissions/board diversity in investment decisions is their impact on wider society. Reducing downside risk is viewed as more important than improving shareholder returns.
- 3. Fund mandates, firmwide policies and client values are also more important than improving shareholder returns, and of similar importance to reducing downside risk. These constraints are more relevant for carbon emissions than board diversity.

7. Conclusion

This paper surveyed active equity portfolio managers of both traditional and sustainable funds on their beliefs, objectives, constraints, and actions related to sustainable investing. Our results suggest that many standard assumptions of sustainable investing research contrast with actual practices, and propose alternatives to bring research closer to reality.

We have summarized our responses to the individual questions at the end of each section, so we instead highlight the general takeaways here. The first is the broad importance of constraints, which frequently dominate both financial and social considerations for incorporating ES factors. Standard SI models assume that actions are taken by asset owners (principals) who maximize an objective function that includes social returns. However, in reality most stock selection, voting, and engagement decisions are taken by asset managers (agents). Principals are unable to write a contract forcing agents to maximize their objective function, so constraints may be a second-best solution. Given fiduciary concerns, fund managers do not seem to be constantly optimizing a weighted sum of financial and societal objectives. Other than actions with limited effects on financial returns, such as voting for ES

proposals that are neutral for shareholder value, they are unable to make large voluntary sacrifices of financial returns.

There are two main ways fund managers can pursue ES outcomes while respecting fiduciary duty. One is through complying with clear constraints within the mandate that prioritize SI over returns. The other is through pursuing ES outcomes as a way to increase returns. When clients are choosing funds, they are mainly selecting the constraints of the fund mandate and the fund family, plus the fund manager's ability to maximize financial returns subject to those constraints, rather than the manager's weights on different societal objectives. However, the manager's beliefs are also important, as a portfolio manager that believes ES is a source of alpha is more likely to integrate ES into stock selection and engagement. This suggests that a future theoretical direction is to develop models of SI under delegated portfolio management, and a future empirical direction is to study how such constraints affect stock selection, voting, and engagement. Practicing SI through constraints also has implications for the asset management industry's ability to change companies' ES performance. While constraints may be able to prevent errors of commission (e.g., investing in the fossil fuel sector), they are less above to prevent errors of omission and ensure that investors have positive impact, aside from quantitative issues such as improving board diversity (Gormley et al., 2023).

The second is the wide disparity of beliefs, and actions motivated by beliefs, among investors. For example, 13% rate ES performance as one of the top three drivers of firm value despite most ranking it in the bottom two; 10% view greenhouse gas emissions as immaterial while 26% view them as highly material; there are a range of views on whether good and bad ES performers will generate positive or negative alpha; and 10% rarely incorporate ES into stock selection while 44% do so very often. Importantly, these differences do not polarize naturally across traditional vs. sustainable lines. These beliefs affect behavior, with investors much more likely to make investment decisions and engage with companies based on ES factors if they expect good ES performers to deliver positive alpha. While hard

ES constraints are determined by whether the mandate is sustainable or not, ES integration is driven more by portfolio manager beliefs.

Prior research typically attributes differences in investor behavior to different preferences; for example, Bolton et al. (2020) use proxy voting records to "estimate institutional investor preferences." However, since variation in objectives may be constrained by fiduciary duty, differences in behavior may arise at least in part from differences in beliefs. While heterogeneous belief models have been used successfully in other areas of asset pricing, we are unaware of any such models for sustainable investing.

The third is that differences between traditional and sustainable investors are smaller than commonly thought. Both recognize the importance of financial returns and of delivering on their fiduciary duty. Only 23% of traditional investors and 30% of sustainable investors will tolerate companies sacrificing even 1 basis point per year to improve their ES performance. The proportions who have voted for a shareholder proposal that was even slightly negative for firm value are remarkably similar, at 24% and 31%. Both sets of investors viewed long-term shareholder value as by far the main reason for engaging on ES issues.

Many theories model two classes of investors, one whose sole objective is financial returns and another who place significant weight on social returns. Our results suggest that the few differences that exist result from different beliefs (e.g. on whether ES leaders outperform) or different constraints (e.g. from fund mandates) rather than different preferences or objectives. This suggests that differential constraints or beliefs may be a more realistic approach than different objective functions, particularly when investors are asset managers rather than asset owners.

Finally, our results question the likelihood that the asset management industry will have a significant effect on companies' aggregate ES performance under their current mandates. Both traditional and sustainable fund managers are generally reluctant to sacrifice returns for ES

performance, and do not believe that companies are underinvesting in ES performance from a shareholder value perspective. To have greater impact on asset manager behavior, firmwide policies, fund mandates, and client wishes would need to be more restrictive.

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Table 1

Rank the following by their importance for the long-term value of companies in your investment universe in aggregate (1=most important, 6=least important)

All investors (n=509)

Community impact

Demographic diversity (e.g. gender, race)

	Mean	1	2	3	4	5	6
Strategy and competitive position	1.67 ?	58.74%	24.95%	10.81%	2.75%	1.96%	0.79%
Operational performance	2.36 ?	24.56%	38.31%	20.63%	11.00%	4.13%	1.38%
Governance	3.71 ?	5.50%	13.95%	19.45%	32.22%	22.79%	6.09%
Corporate culture	4.12 ?	6.88%	10.81%	16.70%	17.88%	24.17%	23.58%
Capital structure	4.13 ?	2.75%	8.64%	24.75%	21.61%	21.41%	20.83%
ES performance	5.01 ?	1.57%	3.34%	7.66%	14.54%	25.54%	47.35%

The superscript reports whether the mean is significantly different from 3.5 (the median ranking). a, b, and c represent statistical significance at the 1%, 5%, and 10% level, respectively.

Table 2

How material is ES performance, on the following dimensions, to how you assess the long-term value of companies in your investment universe in aggregate? (0=immaterial, 4=highly material)

All investors (n=501)						
	Mean	0	1	2	3	4
Employee wellbeing	2.59?	5.59%	7.58%	27.35%	41.52%	17.96%
Consumer health, welfare, and privacy	2.53 ?	5.39%	10.18%	30.14%	34.33%	19.96%
Greenhouse gas emissions	2.50 ?	10.18%	10.38%	24.95%	28.54%	25.95%
Pollution and waste management	2.49?	6.79%	11.98%	24.15%	39.52%	17.56%
Treatment of suppliers	2.31?	4.99%	13.97%	37.13%	32.73%	11.18%
Ecological impacts (including biodiversity and water usage	2.23?	9.18%	16.97%	29.14%	31.14%	13.57%

10.38%

18.36%

19.56%

24.95%

37.33%

31.34%

26.35%

20.96%

6.39%

4.39%

1.99?

1.68?

The superscript reports whether the mean is significantly different from zero. a, b, and c represent statistical significance at the 1%, 5%, and 10% level, respectively.

Table 3

Do you expect good ES performers to typically outperform or underperform in long-term risk-adjusted total shareholder return? (-2=strongly underperform, 0=neither under nor outperform, 2=strongly outperform)

The first row of responses for each option (in bold) is from all investors (n=499), the second row (not italicized) is from traditional investors (n=286), the third row (italicized) is from sustainable investors (n=213).

	Mean	-2	-1	0	1	2
Do you expect good ES performers to typically	0.57 ^{?,?}	2.00%	5.81%	34.87%	48.10%	9.22%
outperform or underperform in long-term risk-	$0.36^{?,?}$	2.45%	8.39%	43.71%	41.96%	3.50%
adjusted total shareholder return?	0.85 ?,?	1.41%	2.35%	23.00%	56.34%	16.90%

The first superscript reports whether the mean is significantly different from zero, the second whether they are significantly different between traditional and sustainable investors. a, b, and c represent statistical significance at the 1%, 5%, and 10% level, respectively.

Table 4

Panel A: Why do you think good ES performance leads to long-term outperformance? (-2=strongly disagree, 0=neither agree nor disagree, 2=strongly agree)

Panel B: Why do you think the market fails to fully price in ES performance? (-2=strongly disagree, 0=neither agree nor disagree, 2=strongly agree)

Panel C: Why do you think good ES performance leads to long-term underperformance? (-2=strongly disagree, 0=neither agree nor disagree, 2=strongly agree)

Panel D: Why do you think good ES performance does not lead to long-term under- or outperformance?

All investors (n=285/177/39/174)

Panel A						
	Mean	-2	-1	0	1	2
Good ES performance is correlated with other characteristics that cause long-term outperformance	1.43 ?	0.35%	0.00%	4.21%	47.02%	48.42%
Good ES performance improves long-term value but the market underprices it in the short term	0.71 ?	1.40%	7.02%	29.12%	44.56%	17.89%
Increasing investor demand for good ES performance will drive their prices up over time	0.50?	0.70%	10.18%	36.14%	44.56%	8.42%
Good ES performance is immaterial or negative for long-term value, but the market excessively discounts good ES performers	-1.04 [?]	32.63%	43.86%	18.95%	3.51%	1.05%
Panel B						
	Mean	-2	-1	0	1	2
The market is too short-termist	1.36 ?	1.13%	2.26%	8.47%	36.16%	51.98%
Disclosed ES information is not comparable across companies	1.01 ?	0.56%	6.21%	13.56%	51.41%	28.25%
The market does not recognize that ES	0.79 ?	1.13%	9.60%	16.95%	54.24%	18.08%

performance is financially material						
Disclosed ES information is not reliable	0.60 ?	0.56%	11.86%	27.12%	48.02%	12.43%
enough	0.00	0.5070	11.00/0	27.12/0	46.0270	12.4370
Companies do not disclose enough ES	0.43 ?	1.69%	14.69%	33.90%	38.42%	11.30%
information	0.73	1.0770	14.07/0	33.7070	30.4270	11.5070
It is too difficult to incorporate ES	0.31 ?	5.08%	23.73%	18.64%	40.11%	12.43%
information into valuations	0.51	3.0670	23.7370	10.07/0	70.1170	12.43/0
Disclosed ES information is not relevant	0.29 ?	2.82%	19.21%	34.46%	32.77%	10.73%
enough	0.23	2.02/0	19.2170	34.4070	32.7770	10.7370
Panel C						
	Mean	-2	-1	0	1	2
Good ES performance is immaterial for	0.51 ?	7.69%	15.38%	20.51%	30.77%	25.64%
long-term value but the market overprices it	0.51	7.0970	13.3670	20.3170	30.7770	23.0470
Good ES performance is correlated with						
other characteristics that cause long-term	0.38 ?	5.13%	10.26%	33.33%	43.59%	7.69%
underperformance						
Good ES performance worsens long-term	0.00 ?	17.95%	17.95%	23.08%	28.21%	12.82%
value and the market fails to price this in	0.00	17.9370	17.9370	23.08%	28.2170	12.8270
Good ES performance improves long-term	0.00 ?	10.260/	25 (40/	20.770/	20.510/	12 920/
value but the market overprices it	0.00	10.26%	25.64%	30.77%	20.51%	12.82%
Panel D						
ES performance is material for long-term value	and the m	arket fully p	rices	55 170/		
14 tu		, ,		55.17%		

The superscript reports whether the mean is significantly different from zero. a, b, and c represent statistical significance at the 1%, 5%, and 10% level, respectively.

44.83%

ES performance is immaterial for long-term value and the market

recognizes this

Table 5

Do you believe that bad ES performers typically outperform or underperform in long-term risk-adjusted total shareholder return? (-2=strongly underperform, 0=neither under nor outperform, 2=strongly outperform)

The first row of responses for each option (in bold) is from all investors (n=497), the second row (not italicized) is from traditional investors (n=286), the third row (italicized) is from sustainable investors (n=211).

	Mean	-2	-1	0	1	2
Do you believe that bad ES performers typically	-0.70 ^{?,?}	13.68%	50.10%	28.97%	6.64%	0.60%
outperform or underperform in long-term risk-	-0.67 ^{?,?}	12.94%	48.25%	32.17%	6.64%	0.00%
adjusted total shareholder return?	-0.73 ^{?,?}	14.69%	52.61%	24.64%	6.64%	1.42%

The first superscript reports whether the mean is significantly different from zero, the second whether they are significantly different between traditional and sustainable investors. a, b, and c represent statistical significance at the 1%, 5%, and 10% level, respectively.

Table 6

How much do companies across your investment universe typically invest in ES performance on the following dimensions, compared to the level that would maximise long-term shareholder value? (-2=significantly underinvest, 0=neither over-nor underinvest, 2=significantly overinvest)

All investors (n=493)

	Mean	-2	-1	0	1	2
Greenhouse gas emissions	0.34?	2.64%	15.62%	37.53%	33.87%	10.34%
Pollution and waste management	0.19?	2.64%	16.63%	44.62%	31.64%	4.46%
Employee wellbeing	0.17?	3.45%	12.78%	50.51%	29.82%	3.45%
Demographic diversity (e.g. gender, race)	0.16?	1.83%	16.63%	49.49%	28.19%	3.85%
Consumer health, welfare, and privacy	0.14?	2.84%	12.98%	54.36%	26.77%	3.04%
Community impact	0.05?	2.23%	15.82%	58.01%	22.72%	1.22%
Treatment of suppliers	0.01?	2.84%	16.63%	58.22%	21.30%	1.01%
Ecological impacts (including biodiversity and water usage)	-0.04 ?	4.87%	23.53%	45.23%	23.73%	2.64%

Panel A: Why do you think companies overinvest in some ES issues? (0=not at all important, 4=very important)

Panel B: Why do you think companies underinvest in some ES issues? (0=not at all important, 4=very important)

All investors (n=335/250)

Table 7

Panel A							
	Mean	0	1	2	3	4	N
The public, the media, or employees pressure them to overinvest	3.02 ?	0.60%	5.37%	14.63%	50.15%	29.25%	335
Investors pressure them to overinvest	2.76?	1.19%	7.76%	20.90%	53.73%	16.42%	335
Companies do not sufficiently distinguish between material and immaterial factors	2.50?	3.28%	10.15%	36.12%	33.73%	16.72%	335
To improve executives' personal reputation	2.45 ?	3.58%	12.84%	30.15%	42.09%	11.34%	335
Compensation provides incentives to overinvest	2.23 ?	5.37%	18.51%	31.94%	36.42%	7.76%	335
Companies overestimate the financial benefits (e.g. increased returns, lower risk) of ES investment	1.96 [?]	6.87%	26.57%	35.22%	26.27%	5.07%	335
Executives themselves care about the environment and society	1.79 °	10.15%	28.06%	36.72%	22.99%	2.09%	335
Panel B							
	Mean	0	1	2	3	4	N
Investors are too short-termist	2.82 ?	4.00%	9.20%	16.40%	41.20%	29.20%	250
Companies are too short-termist	2.72 ?	3.60%	9.20%	21.60%	42.80%	22.80%	250
Companies underestimate the financial benefits (e.g. increased returns, lower risk) of ES investment	2.44 ?	6.80%	13.60%	22.00%	44.40%	13.20%	250
Companies lack expertise in how to improve ES	2.35 ?	5.20%	14.40%	31.20%	38.40%	10.80%	250
Compensation incentives place nsufficient weight on ES issues	2.34 ?	6.00%	15.60%	32.40%	30.80%	15.20%	250
The public, the media, and employees pay insufficient attention to ES issues	1.53 [?]	16.80%	35.20%	30.00%	14.00%	4.00%	250

Table 8

How much long-term risk-adjusted total shareholder return would you tolerate a company sacrificing to improve its ES performance?

The first row of responses for each option (in bold) is from all investors (n=490), the second row (not italicized) is from traditional investors (n=281), the third row (italicized) is from sustainable investors (n=209).

	Zero – I would not tolerate any sacrifice	1-10 bp per year	11-50 bp per year	>50 bp per year	No sacrifice is necessary since there is no trade-off
How much long-term risk-adjusted total	33.06%	13.88%	9.18%	3.47%	40.41%
shareholder return would you tolerate a company sacrificing to improve its ES	40.93%	12.46%	8.50%	2.49%	35.23%
performance?	22.49%	15.79%	9.57%	4.78%	47.37%

Table 9

Panel A: Have firmwide ES policies, your fund mandate, your clients' wishes, or concern for your reputation or sustainability rating ever caused you to do any of the following more than you otherwise would? (select all that apply)

Panel B: What caused you to take these actions? (select all that apply)

Panel C: What were the consequences for the risk-adjusted returns of your fund?

The first column of responses for each option (in bold) is from all investors (n=485/348/327), the second column (not italicized) is from traditional investors (n=280/173/165), the third column (italicized) is from sustainable investors (n=205/175/162).

Panel A	All	Traditional	Sustainable
Avoid stocks we believed would outperform	38.14%	28.93%	50.73%
Avoid stocks that would improve portfolio diversification	37.94%	29.64%	49.27%
Engage with companies on ES issues that do not add shareholder value	28.04%	25.00%	32.20%
Avoid owning ES laggards whose ES performance we could have improved	22.06%	13.93%	33.17%
Avoid owning ES leaders in a laggard industry	21.44%	15.36%	29.76%
Focus on visible dimensions of ES performance at the expense of more important ES issues	20.21%	19.64%	20.98%
Vote for ES resolutions that do not add shareholder value			
Hold stocks we believed would underperform	6.60%	4.29%	9.76%
None of the above	29.07%	38.93%	15.61%
Panel B			
Firmwide ES policies	57.76%	52.02%	63.43%
Our fund mandate	52.01%	34.10%	69.71%
Our clients' wishes	47.99%	51.45%	44.57%
Concern for our fund's sustainability rating or reputation	36.49%	30.06%	42.86%
Panel C			
No impact on returns	19.57%	24.24%	14.81%
A small reduction in returns	25.99%	27.27%	24.69%
A moderate reduction in returns	12.54%	8.48%	16.67%
A large reduction in returns	2.75%	1.82%	3.70%
An improvement in returns	3.06%	3.64%	2.47%
Impossible to quantify	36.09%	34.55%	37.65%

Table 10

Do you underweight poor ES performance / overweight good ES performers for any of the following reasons? (0=Never, 4=Very often)

	A 11	T 1	C4	ES Be	ES Believers		ES Skeptics	
	All (n=486)	Trad (n=279)	Sust (n=207)	Trad (n=129)	Sust (n=152)	Trad (n=150)	Sust (n=55)	
Constraints					,	•	, , ,	
To be consistent with our fund's mandate	2.21 (48%)	1.59 (28%)	3.04 (75%)					
To be consistent with our firm's values or policies	2.07 (45%)	1.70 (34%)	2.58 (60%)					
To be consistent with our clients' values	2.04 (40%)	1.65 (24%)	2.56 (60%)					
Financial motivations								
To avoid downside risk	2.12 (47%)	1.91 (40%)	2.40 (57%)	2.28 (52%)	2.54 (63%)	1.60 (30%)	2.02 (40%)	
To improve returns	2.08 (44%)	1.80 (36%)	2.46 (56%)	2.38 (53%)	2.84 (70%)	1.31 (21%)	1.44 (16%)	
To avoid stocks that are volatile	1.23 (19%)	1.11 (15%)	1.39 (23%)	1.31 (23%)	1.55 (27%)	0.93 (8%)	0.93 (13%)	
Marketing motivations								
To improve our fund's sustainability rating	1.33 (22%)	0.96 (12%)	1.83 (36%)					
To improve our fund's reputation	1.25 (19%)	0.93 (11%)	1.69 (30%)					
ES impact motivations								
To reward companies for improving ES performance / penalize companies for not doing so	1.32 (21%)	0.98 (13%)	1.77 (30%)					
To affect companies' cost of capital	1.14 (13%)	0.91 (9%)	1.43 (19%)					

Figures are the mean response for each option with, in brackets, the proportion of respondents selecting 3 or 4. The superscript reports whether the mean is significantly different from zero. a, b, and c represent statistical significance at the 1%, 5%, and 10% level, respectively. ES Believers are those answering +1 or +2 to the question: *Do you expect good ES performers to typically outperform or underperform in long-term risk-adjusted total shareholder return?* ES Skeptics are those answering -2, -1, or 0 to the same question.

Table 11

Panel A: Have you ever voted for a shareholder proposal when the proposal was even slightly negative for firm value?

Panel B: Have you ever voted for a shareholder proposal when the proposal was neutral for firm value?

Panel C: Why did you vote for such proposals? (select all that apply)

For Panels A and B, the first column of responses for each option (in bold) is from all investors (n=485), the second column (not italicized) is from traditional investors (n=279), the third column (italicized) is from sustainable investors (n=206)

For Panel C, the first column of responses is for all investors who selected Yes in Panel A (n=129) and the second column is for all investors who selected Yes in Panel B (n=376)

Panel A – proposal even slightly negative for firm valu	e				
	All	Traditional	Sustainable		
Yes	26.60%	23.66%	30.58%		
No	73.40%	76.34%	69.42%		
Panel B – proposal neutral for firm value					
	%				
Yes	77.53%	73.12%	83.50%		
No	22.47%	26.88%	16.50%		
Panel C – why did you vote for such proposals?					
	Proposal is negative for firm value	Proposal is no	eutral for firm value		
		(n	=376)		
To be consistent with our firm's values or policies	55.04%	(54.63%		
To be consistent with our clients' values	51.94%		19.47%		
To be consistent with our fund's mandate	48.84%	5	52.39%		
I expected it to have a positive impact on society	32.56%	2	11.49%		
Proxy advisor recommendations	30.23%	3	38.83%		
To improve our fund's reputation or sustainability rating	19.38%	1	15.16%		
I expected it to have a positive impact on other companies we own	15.50%	20.21%			

Table 12

Panel A: Do you ever engage with companies to improve their ES performance?

Panel B: What determines whether you engage with a company on an ES issue? (0=not at all important, 4=very important)

For Panel A, the first column of responses for each option (in bold) is from all investors (n=483), the second column (not italicized) is from traditional investors (n=278), the third column (italicized) is from sustainable investors (n=205)

For Panel B, the responses are for all investors who responded Yes in Panel A (n=364)

Panel A		*				
	Al	1	Traditiona	ıl	Su	stainable
Yes	75.57	7%	63.67%		9	01.71%
No	24.43	3%	36.33%			8.29%
Panel B	Mean	0	1	2	3	4
How much the issue affects long-term shareholder value	3.34?	2.47%	3.85%	9.89%	25.00%	58.79%
Our stake in the company	2.58?	8.79%	9.62%	20.05%	37.64%	23.90%
How much the issue affects wider society	2.32 ?	7.97%	12.91%	31.59%	34.62%	12.91%
How much our firm cares about the issue	2.29?	11.54%	10.44%	30.22%	32.69%	15.11%
How much our clients care about the issue	2.27 ?	7.97%	12.91%	35.16%	31.87%	12.09%
The time, resource, and financial costs of engagement	2.08?	12.91%	14.84%	33.79%	28.30%	10.16%
How much the issue affects other companies we own	2.07?	15.66%	12.91%	32.69%	26.10%	12.64%
The need to prioritize given non-ES issues we are engaging on	1.77 ?	19.51%	14.56%	40.38%	20.60%	4.95%
How much our reputation would be improved by engaging	1.42 ?	28.57%	22.25%	31.04%	15.11%	3.02%
How much our sustainability rating would be improved by engaging	1.26 ?	38.46%	17.31%	26.65%	14.56%	3.02%

Table 13

Do you consider a company's carbon emissions in your investment decisions for any of the following reasons? (0=not at all important, 4=very important)

All investors (n=479)

	Mean	0	1	2	3	4
Carbon emissions are bad for wider society	2.11?	21.71%	9.81%	21.92%	28.39%	18.16%
Higher carbon emissions increase downside risk	1.98?	21.50%	12.11%	25.26%	29.23%	11.90%
Our clients track the carbon footprint of our portfolio	1.82 ?	27.97%	12.11%	23.59%	22.34%	13.99%
Our firm's values or net zero policies influence the carbon footprint of our portfolio	1.71 ?	31.52%	13.36%	21.29%	20.25%	13.57%
Our fund's mandate constrains the carbon footprint of our portfolio	1.51?	40.71%	11.48%	17.95%	15.45%	14.41%
Higher carbon emissions lower returns	1.45?	32.15%	17.33%	28.39%	17.75%	4.38%
Higher carbon emissions increase return volatility	1.44?	32.15%	17.75%	28.18%	17.54%	4.38%
Our fund's reputation depends on the carbon footprint of our portfolio	1.42 ?	35.07%	17.75%	24.22%	16.28%	6.68%
Carbon emissions create a systemic risk to other companies in our portfolio	1.39 ?	31.11%	21.29%	29.02%	14.20%	4.38%
Our fund's sustainability rating depends on the carbon footprint of our portfolio	1.37 ?	37.37%	16.28%	23.80%	17.12%	5.43%
Higher carbon emissions increase returns	0.69 a	56.37%	22.76%	17.12%	2.92%	0.84%

Table 14

Do you consider a company's board diversity in your investment decisions for any of the following reasons? (0=not at all important, 4=very important)

All investors (n=479)

in mvestors (n 175)						
	Mean	0	1	2	3	4
Board diversity is good for wider society	2.02 ?	19.62%	11.27%	27.77%	30.48%	10.86%
Board diversity reduces downside risk	1.78?	24.84%	15.24%	25.68%	25.89%	8.35%
Board diversity increases returns	1.78?	22.96%	14.20%	32.15%	23.17%	7.52%
Our firm's values or policies require us to consider board diversity	1.74?	29.23%	13.78%	22.34%	23.38%	11.27%
Board diversity reduces return volatility	1.36?	34.03%	17.95%	29.23%	15.66%	3.13%
Our fund's mandate requires us to consider board diversity	1.31 ?	40.29%	16.91%	19.00%	19.00%	4.80%
Our clients track the board diversity of our portfolio	1.19?	37.16%	23.38%	25.47%	11.69%	2.30%
Lack of diversity creates a systemic risk to other companies in our portfolio	1.06 ?	45.51%	18.58%	24.01%	7.93%	3.97%
Our fund's sustainability rating depends on the board diversity of our portfolio	1.02 ?	45.51%	19.62%	24.01%	9.19%	1.67%
Our fund's reputation depends on the board diversity of our portfolio	1.00 ?	45.51%	20.67%	24.01%	8.35%	1.46%
Board diversity lowers returns	0.67 ?	58.25%	21.09%	17.33%	2.51%	0.84%

Appendix A: Additional Survey Contents

Below we include the text provided on the first page of the survey.

Thank you for participating in this survey. This is a joint research project by London Business School and the London School of Economics on how active equity investors consider companies' environmental and social ("ES") performance in their investment process.

The survey has 19 questions and should take 15 minutes to complete. Participation will result in a £100 donation to your choice of the American Red Cross, British Red Cross, or International Red Cross (up to a maximum of £25,000). You will be sent a preliminary version of the results in advance of publication if you provide an email address at the end. We will report only aggregate results, so your individual responses are confidential. You have the right to withdraw from the survey at any time.

The researchers are Prof. Alex Edmans (aedmans@london.edu), Dr. Tom Gosling (tgosling@london.edu) and Prof. Dirk Jenter (d.jenter@lse.ac.uk).

The only personal data collected in this survey will be any email address you optionally give in order for us to share the results with you. By participating in this survey you agree to us processing your data in line with GDPR, Data Protection Act 2018 and the London Business School <u>data protection policy and privacy statements</u>. For more information on how we will process the data you provide, please see this <u>participation information sheet</u>.

OA1 – Online Appendix

Respondent demographics

Q1. What type is your fund?

	%	N
Active equity	88.61%	451
Active multi-asset including equities	11.39%	58
Index equity	0.00%	0
Fixed income	0.00%	0
Other	0.00%	0
Total	100%	509

Q2. What are your fund's assets under management?

	%	N
Less than \$100m	12.77%	65
Between \$100m and \$250m	12.77%	65
Between \$250m and \$500m	10.61%	54
Between \$500m and \$2b	23.97%	122
Above \$2b	39.88%	203
Total	100%	509

Q3. How many stocks does your fund typically hold?

	%	N
<30	14.54%	74
30-50	44.01%	224
50-100	26.92%	137
100-500	11.20%	57
>500	3.34%	17
Total	100%	509

Q4. Is your fund marketed as responsible/sustainable/ESG/SRI/ethical?

	%	N
Yes	43.03%	219
No	56.97%	290
Total	100%	509

Q5. Where is your fund marketed?

	%	N
US	43.81%	223
EU	61.10%	311
UK	51.87%	264
Other (please specify)	33.40%	170
Total		968

Q6. Are the clients of your fund retail or institutional?

	%	N
Retail	11.59%	59
Institutional	21.81%	111
Both	66.60%	339
Total	100%	509

Q7 – How would you describe your investment style?

	%	N
Fundamental	81.73%	416
Quantitative	10.81%	55
Other (please specify)	7.47%	38
Total	100%	509