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# Sustainable Investing in Practice: Objectives, Constraints, and Limits to Impact

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# Sustainable Investing in Practice: Objectives, Constraints, and Limits to Impact

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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 performance influences stock selection, engagement, and voting for over three quarters of investors, including nearly two thirds of traditional investors. The primary motivation is financial, even among funds marketed as sustainable. Few are willing to sacrifice financial returns for ES performance, largely due to fiduciary duty concerns. A second driver is constraints, such as fund mandates, firmwide policies, and client wishes, which led 72% to make stock selection, voting, or engagement decisions they otherwise would not have. Achieving ES impact is seen as much less important, even among sustainable funds.

**JEL classifications:** D62, G11, G34
**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.[1] 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 2024, this had grown to 4,827 investors with $128 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 the reality of SI is through archival research, investigating investors' portfolios (e.g., Gibson et al., 2022; Pastor, Stambaugh, and Taylor, 2024) 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. For example, investors might prefer stocks with good ES performance because they believe that ES is financially material but undervalued, have non-financial objectives, or are prohibited from investing in poor ES performers.

Identifying asset managers' beliefs, objectives, and constraints is particularly important to understand how well the asset management industry represents asset owners' preferences. Many asset owners have ES as well as financial goals. If their asset managers have similar ES goals, or have a purely financial objective but believe that firms underinvest in ES, then asset owners' ES goals may be achieved. However, if asset managers are unwilling to sacrifice financial returns for ES performance, and if they view most companies as investing in ES optimally, their likely impact on ES 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 on their *beliefs*, such as how material they view ES performance for firm value, whether they think ES is

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

fully priced by the market, and whether they regard firms as over- or underinvesting in ES issues. Next, we elicit 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? We also enquire about their *constraints*: whether fund mandates, firmwide policies, client wishes, or concerns about their fund's sustainability rating or reputation restrict how they pursue their objectives. 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, objectives, or constraints?

We distributed the survey between November 2023 and 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 SI than currently used in the academic literature.

*Beliefs*

Our first question asked respondents to rank the importance of actual ES 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 ranks significantly below governance ("G"), even though ESG factors are often bundled together; below corporate culture, another intangible; and below capital structure, even though the latter is irrelevant in perfect capital markets.

The low ranking of ES performance does not mean that investors view it as irrelevant. Many free text entries emphasized that all value drivers are interlinked, that ES can affect the firm's competitive position or operational performance, and that deficiencies in any of the value drivers are a concern. Others indicated 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 next asked respondents to rate the financial materiality of ES performance on eight dimensions. 85% (including 78% of traditional investors) rated at least one ES issue as material. Both investor types view ES performance on employee and consumer-related issues as most important, potentially because they are internalized even in the absence of regulation. Fewer traditional than sustainable 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 directly valuable but the market fails to price it in. 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.

We then asked investors whether, from a shareholder value perspective, firms over- or underinvest in the eight ES issues. For all eight, the modal response was that they invest at the optimal level, potentially explaining why investors are selective in their support of shareholder proposals and their engagements. 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% that they underinvest in at least one (most commonly ecological impacts). The most supported causes of overinvestment are pressure from the media, the public, employees or investors; underinvestment is attributed to investor or company short termism.

*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 return for ES performance; both types explained that fiduciary duty prevents them from doing so. This contrasts models where investors assign significant weight to ES impact. While plausible for asset owners, it does not describe delegated asset managers constrained by fiduciary duty. Instead of having an objective function that trades off social against financial value, fund managers take ES performance into account largely to improve financial returns or, as the next questions will show, to satisfy constraints.

72% of investors (62% traditional, 85% sustainable) report that ES constraints such as firmwide policies, fund mandates, client wishes, or concern for their fund's sustainability rating or reputation 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; for 30-55% of all investors, these constraints reduced financial returns. ES constraints sometimes forced investors to take actions that reduced their ES impact, such as not investing in ES laggards whose performance they could have improved. This is problematic if clients seek "ES impact" (i.e., to improve firms' ES performance), but less so if they only care about "ES values" (i.e., avoiding firms that are inconsistent with their values).

These responses show 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 also face a range of formal and informal ES constraints. Since these constraints are imposed either by the fund family or its clients, and since they may hinder the pursuit of both financial returns and ES impact, 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. Writing a contract that requires asset managers to maximize their asset owners' weighted objective over ES and returns may be infeasible. Instead, asset managers offer a menu of funds with different constraints that reflect clients' ES values, or help achieve ES impact. When selecting a fund, clients choose 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, and its effectiveness in achieving client goals is an open question.[2]

*Actions*

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

*Stock selection*: 77% of investors (66% 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 firmwide policies, and alignment with client values. These three constraints rank higher than "to improve 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 incorporate ES performance into stock selection: 74% of sustainable and 51% of traditional investors

[2] Riedl and Smeets (2017), Giglio et al. (2024), and Heeb et al. (2023) provide evidence that many retail investors care about ES performance

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. Incorporation of ES performance for financial reasons is highly correlated with fund managers' beliefs on whether ES is a source of alpha. Thus, whether ES is used in pursuit of returns is mainly determined by portfolio managers' beliefs, rather than their mandate. 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 (41%) of even sustainable investors. Notably, ES impact is less important than selecting stocks that reflect clients' values.

*Voting:* Consistent with the importance of fiduciary duty, only 27% of investors (24% traditional, 31% sustainable) have voted for a shareholder proposal that was even slightly negative for shareholder value, even though 78% have supported value-neutral proposals. Such voting, especially for negative-value proposals, is driven more by ES 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% traditional, 92% sustainable) have engaged with companies to improve their ES performance. Such engagement is motivated primarily by the expected increase in the value of the investor's stake, followed by the issue's importance to clients, the firm, and wider society. 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 most asset managers are reluctant to undertake ES engagement that is not in their clients' financial interest.

*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. Neither is considered of high importance, and the most common reason for considering either is its impact on society. Consistent with prior responses, reducing downside risk and complying with fund mandates, firm policies, and client wishes are more important reasons than improving returns. More investors associate emissions with lower returns and diversity with higher returns than the reverse, 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 most academic research focuses on demographic diversity.

*Additional conclusions*

We can draw three broader conclusions from the results. First, the asset management industry is unlikely to lead the charge in improving the aggregate ES performance of firms. Most portfolio managers do not place significant weight on ES objectives beyond what is required to improve financial returns, nor do they believe that firms are systematically underinvesting in ES. 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 (2025) for overviews). This need not be because asset managers are shirking, but because they are bound by fiduciary duty and believe that most companies are investing in ES optimally.

Second, how fund managers incorporate ES into their actions is driven more by constraints and beliefs than by fund labels. Constraints influenced stock selection, engagement, and voting decisions for large majorities of both types of fund. While mandate constraints are more restrictive for sustainable funds, and arguably their distinguishing feature, traditional funds face ES constraints from firmwide policies and client values.

A fund manager's belief in ES outperformance significantly increases the use of ES in stock selection and engagement, for both fund types. Moreover, there is a large heterogeneity in beliefs, and it does not polarize neatly across traditional vs. sustainable lines. For example, 45% of traditional

investors expect good ES performers to deliver positive alpha, 44% no alpha, and 11% negative alpha. This contrasts prior research that attributes differences in investor behavior to different preferences, and suggests incorporating heterogeneous beliefs into models of sustainable investing. For asset owners, it is important to understand that whether portfolio managers act as "traditional" or "sustainable" depends more on their beliefs and ES constraints than how their fund is labelled. Future research might study the extent to which asset managers can credibly signal their beliefs.

Third, differences between traditional and sustainable investors are smaller than commonly believed. Both types recognize fiduciary duty and the priority of financial returns, 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 affect their portfolios. Many of their beliefs are also similar. Both types rank ES performance below other value drivers, yet over three quarters of both view at least some ES issues as financially material. Both often tilt their portfolios based on ES performance to improve risk-adjusted returns, and both engage with companies to improve ES performance. Empirical studies on the effectiveness of SI often compare funds labelled as "sustainable" or "responsible" to funds without such labels. However, comparing sustainable and traditional *funds* does not capture the difference between sustainable and traditional *investing* – many traditional funds incorporate ES into stock selection or engage on ES performance; many sustainable funds do not.

*Relation to the literature*

This paper is most closely related to other surveys of investor behavior. Amel-Zadeh and Serafeim (2018) study how investors use ES information, but not their beliefs, objectives, or constraints. They also do not differentiate between ES performance (a company's impact on 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 (mainly senior executives, analysts, and ES specialists) 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. Their respondents' main motives for incorporating climate risk into investing are reputation and moral or ethical obligations, rather than financial returns. This is consistent with our results for carbon emissions; in contrast, we find ES in general is incorporated predominantly for financial reasons.

Giglio et al. (2025) 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 most ESG-oriented respondents 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 (2025) study how finance professionals incorporate ES (and G) factors into firm valuation, and Bauer et al. (2024) survey investors on their beliefs about climate risk pricing and 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 them. 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.

Second, it is difficult to deduce investors' beliefs from their actions, especially when there is uncertainty about their objectives. For example, investors might buy ES leaders because they expect them to outperform, or to lower their cost of capital. Third, it is similarly challenging to identify investors' constraints. While archival research can observe actions that are not taken, the reasons are often unclear. An investor might avoid an industry because constraints preclude it, or because the investor expects the industry to underperform.

Fourth, a survey allows us to investigate the relative importance of various drivers of SI behavior. 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. Finally, archival studies may be limited by the "academic paradigm," i.e., restricted to what existing research suggests is relevant. A survey that is beta-tested with practitioners, 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 and provide free-text fields after each question to detect 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 sounds logical or reject it because it is too intricate.

Third, respondents may misreport their answers. In addition to guaranteeing anonymity, we tried to not ask questions that would likely lead to misreporting, such as whether personal values influence attention to ES (which may conflict with fiduciary duty). Fourth, responses may be limited by the options that we offer, and we may have unintentionally skewed them towards finding that ES matters. Thus, we were symmetric in the responses offered, rather than only including those we thought practitioners would select. For example, we included the possibility that ES constraints lead to an improvement in financial returns, rather than just a reduction.

A final potential limitation is generalizability. One 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 and will discuss the noteworthy ones. A second concern is that, even though we reached out to all funds, respondents from sustainable funds might be overrepresented. We address this by reporting results separately for traditional and sustainable funds where there are meaningful differences.

### *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 long[3], and that we were not missing key dimensions. All 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 9,818 email attempts (we often tried a second format after the first failed). 3,933 triggered error messages, leaving a possible 5,885 successful emails. Of these, 1,726 were sent to domains that, according to an email marketing provider, return no error message even if the address is incorrect; thus, the number of successful emails could be as low as 4,159. We also distributed the survey via CFA UK, 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*

*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)*

[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 invitation 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.

*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 screening question that further ruled them out. The final sentence reiterated that the survey was only for portfolio managers.

The invitation emphasized that we were interested in funds not marketed as sustainable to reduce selection bias; the subject line referred to a survey of equity portfolio managers rather than SI to reduce the risk that traditional investors deleted the email upon receipt. A related concern is that, among traditional funds, those who view ES as important might have been more likely to respond. We thus specified in bold that we were interested in funds that do not consider ES factors. Indeed, many free text comments claimed that ES is an immaterial distraction. Thus, even if investors who feel strongly about ES are more likely to participate, this would apply to both investors with strong positive and 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 we offered the option to receive a draft of the working paper before its public release.[5] We administered the survey using the Qualtrics online platform, giving respondents a generic

[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.

link to guarantee their anonymity. Except for the demographic questions, we randomized the order of responses within each question.

In total, we contacted between 4,159 and 5,855 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 8-12%, compared to 4.3% for McCahery, Sautner, and Starks (2016) and 6.5% for Gompers et al. (2020). We 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.*

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

[6] The results presented are based on all responses, but do not change materially if we only include respondents who answered every question.

materiality").[7] This is because we expect investors to take 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. For the same reason, the survey focused on ES rather than ESG, since there is a reasonable consensus that governance affects firm value.[8]

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"[9]; if any were chosen, the survey ended. Almost 40% of respondents manage a fund with over $2 billion in assets under management, the highest out of five size brackets that we offered. This corresponds to approximately the top size decile in the universe of active equity funds marketed in the US, UK and EEA as listed on Morningstar, suggesting good representation from the largest funds that matter most for asset prices, voting, and engagement. Over 25% of responses were from funds below $250 million, which is also important since an investor's capacity to analyze ES factors may depend on fund size.

The modal respondent (44%) owns 30-50 stocks, suggesting a high-conviction portfolio that allows them to consider ES performance if they wish to. 219 run funds marketed as responsible, sustainable, ESG, SRI, or ethical (which we refer to as "sustainable funds"); the remaining 290 manage traditional funds. 223 of the funds were marketed in the US, 311 in the EU, 264 in the UK, and 170 elsewhere, ensuring broad geographic coverage.[10] 59 were for retail clients only, 111 for institutional only, and

[7] While the terms "impact materiality" and "financial materiality" are known to sustainable investors, we did not use them as they may be unfamiliar to traditional investors. In addition, "impact" may suggest that this survey is about impact investing and cause traditional investors to quit the survey.

[8] We asked respondents to consider their investment universe rather than their portfolio since the latter is endogenous. For example, even if ES and financial performance are not linked in general, some investors may select stocks for which they are linked. Still, it may be that sustainable investors' investment universe differs 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: more sustainable than traditional investors believe that greenhouse gas emissions are financially material, even though some cannot invest in brown stocks where materiality is highest.

[9] "Other" might refer to a commodities or real estate fund, and the respondent was also excluded.

[10] 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 are marketed rather than domiciled since domicile tends to be concentrated in a small number

339 for both. 416 pursued a fundamental investment style, 55 a quantitative one, and 38 selected "other;" most free-text responses described a combination of both styles.

*2.3 Presentation of Results*

We always report aggregate results for all survey respondents. Where there are important differences, we also report results separately for traditional and sustainable investors or describe them in the text. Sustainable investors are over-represented in our sample and so, if their views differ, the aggregate results will not be representative.

We also stratified US vs. non-US funds, due to a common perception that European investors care more about sustainability than US investors.[11] In our survey, responses are almost identical for US and non-US sustainable funds – sustainable funds can be considered a single category regardless of geography. Among traditional funds, US and non-US funds have a similar pattern of responses, although non-US funds tend to place more weight on ES factors than US funds. In many cases, the responses of non-US traditional funds are at a mid-point between US traditional funds and sustainable funds (US and non-US). However, since these differences are of degree rather than kind, we report any significant differences in the text, without separately tabulating the results for US and non-US traditional funds. We also compared the results of funds above and below $2bn and found few significant differences, which we describe in the text.

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 often report

of locations driven by tax or regulatory factors (many European funds are domiciled in Ireland or Luxembourg). Where the fund is marketed is most relevant as it affects client wishes, fund mandates, and reputational concerns.

[11] For example, Dyck et al. (2019) find that firms' ES performance is positively associated with holdings by institutional investors from countries with high ES social norms (such as most European countries) but not low ES social norms (such as the US).

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 together refer to as "important" for brevity[12]), and y is the average rating. For questions with an identifiably neutral response, we scaled the result from -2 to +2, so that the mean score can be compared to the neutral score of 0; x is then the percentage who selected 1 or 2.[13] The response labels for each question are shown in the relevant table. Also to avoid cumbersome prose, we 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 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 two questions explored whether investors view ES performance as financially material. The first question investigates this in relative terms. Specifically, we asked 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 reality, it is unclear how substantial the deviations are.[14] We included governance ("G") since it is sometimes

[12] Similarly, we use "often" to refer to often or very often, "material" for material or highly material, and "agree" for agree or strongly agree.
[13] In these cases, we explain in the text the meaning of -2 and +2 that we gave to the respondents (e.g., "-2=strongly disagree, +2=strongly agree"), but for brevity omit the meaning of 0 as it is always the neutral response.
[14] 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).

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 it is also an intangible factor, but one with clearer financial materiality than some ES factors.

Table 1 illustrates the results. ES performance had the lowest average response, with a mean rank of 5.01. 73% of respondents ranked it fifth or sixth, and only 13% ranked it in the top half. Even among sustainable funds, ES performance ranked last, with a mean rank of 4.49 and 56% putting it fifth or sixth. While some ES funds are marketed on the grounds that ES performance is highly material to firm value, sustainable and traditional managers tend to rank it similarly.[15]

Returning to the aggregate responses, the second lowest average rank was 4.13 for capital structure, significantly higher than the rank for ES performance.[16] Corporate culture and governance received average ranks of 4.12 and 3.71, respectively. Only 29% of respondents ranked governance fifth or sixth, highlighting that investors differentiate between ES and G. Investors thus see ES performance as less important than other intangible factors (corporate culture), other ESG factors (governance)[17], and factors that do not matter in perfect capital markets (capital structure). The most highly rated responses were strategy and competitive position (1.67) and operational performance (2.36).

These results suggest that, if financial value is the goal, investors will not prioritize ES above other determinants. 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

[15] 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 other types had the reverse ranking.
[16] For sustainable funds, the average rank for capital structure was 4.41. This is not significantly different from the 4.49 for ES performance, but the differences between ES performance and all other responses are significant at the 1% level.
[17] Bancel, Glavas, and Karolyi (2025) similarly find that finance professionals view governance as having a stronger effect on firm value than ES.

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."

Since this is a relative ranking, these results do not mean that our respondents view ES as immaterial in absolute terms. Many free-text fields emphasized that all six factors are important. One traditional investor wrote that "although we can roughly rank the factors, … all factors need to be considered for any long-term investment;" another that "it is difficult to drive long term value if you are doing any one of these items poorly." This suggests that good ES performance may only improve firm value when combined with good performance on other dimensions, in contrast to the common approach of regressing firm outcomes on ES plus controls. In future research, it may be interesting to interact ES with other value drivers, rather than only using the latter as controls.

The low relative ranking for ES overall also masks that many investors view ES in granular terms. Numerous free-text responses explained that different ES dimensions should not be lumped together as some matter more than others; moreover, those that matter vary across firms and industries. This granularity contrasts the frequent practice of taking an aggregate ES(G) score and correlating it with firm outcomes in a pooled sample. If different ES factors matter more than others, and if their importance varies across firms, industries, and periods, aggregate studies may be unable to detect these links.[18] This also means that the weak evidence of a link between aggregate ES scores and financial performance (see Matos (2020) and Starks (2023) for surveys) does not necessarily mean that ES is immaterial. Future research that takes context into account may be particularly fruitful.

Another common free text response was that it is difficult to disentangle ES performance from the five other determinants of value. Rather than being directly material, ES may be indirectly material by affecting other factors, such as operational performance or corporate culture, or ES may be an indicator

[18] 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).

of other factors, such as governance. A traditional investor stated that "many of these factors are interlinked (for instance, a company with a good strategy, corporate culture and governance is likely to have a better approach to ES.)" A sustainable investor wrote "I view operational performance and ES performance as linked and mutually reinforcing … ES performance [is] a facet of operational performance."

This has nuanced implications for the use of control variables in ES studies. On the one hand, that ES may be an indicator of other value drivers highlights the importance of controlling for these drivers when attempting to identify a causal effect of ES on financial performance, or attaching appropriate caveats when it is difficult to do so, such as controlling for management quality. On the other hand, that ES may affect firm value through other drivers highlights that "bad controls" may be a concern. This suggests that empirical researchers should report results both with and without controls, and that differences between these two estimates might be informative.

### *3.1.2 ES performance in absolute terms*

Although ES performance ranked below other value drivers in the first question, this does not mean it is unimportant in absolute terms. The second question disaggregates ES into eight dimensions and asked about their absolute importance: "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)."

Table 2 shows that many investors do consider ES to be financially material. 85% (including 78% of traditional investors) rated at least one ES dimension as material. The highest average ratings were for employee well-being (59%/2.59) and consumer health, welfare, and privacy [19] (54%/2.53),

[19] We specified "employee well-being" rather than, for example, "employee engagement" as the former is more clearly a measure of ES performance; the latter has a clearer link to firm value. For similar reasons, we specified "customer health, welfare, and privacy" rather than "customer satisfaction."

potentially because effects on employees and consumers are often internalized, so impact materiality is likely to manifest in financial materiality. More than half also considered pollution and waste management (57%/2.49) and greenhouse gas emissions (54%/2.50) to be material, perhaps due to current and likely increasing future regulations. Demographic diversity (25%/1.68) was ranked as least material, consistent with the mixed evidence that demographic diversity improves financial performance (Fried (2021)). Overall, these responses suggest that practitioner views are more nuanced and granular than the approaches taken by many academic studies.

This is a question where responses differed significantly between sustainable and traditional investors. Sustainable investors viewed every ES factor as more material, with mean scores higher by 0.24-0.95. The biggest differences (0.63-0.95) arose for the environment (greenhouse gas emissions, ecological impacts, and pollution), where regulation is typically needed for internalization, and for demographic diversity. Among traditional investors, non-US investors rated ES as more material than US investors, with mean responses that were on average 0.30 higher, albeit still closer to their US counterparts than to sustainable investors.

### *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)." 57% of respondents answered "outperform" or "strongly outperform," with 8% predicting underperformance and 35% being neutral, resulting in a mean score of 0.57.

This contrasts the weak academic evidence on the alpha of ES leaders. Interviewees highlighted two explanations. The first is that they focus on the ES issues that are material to each company when defining "good ES performers," in contrast to the aggregate approach taken by most academic studies.

The second is that academic research typically uses ESG ratings, while our interviewees assess ES through their own analysis, often focusing on qualitative factors unlikely to be priced in. Several explained that ESG ratings depend on the resources a company devotes to answering ESG questionnaires rather than actual performance.

There were differences between traditional and sustainable investors, with 45% of the former and 73% of the latter believing that ES leaders will outperform. However, this difference is smaller than one might expect, with a mean score of 0.36 (significantly positive at the 1% level) even among traditional investors. In addition, 27% of sustainable investors do not believe that strong ES performance leads to alpha, and 4% even associate negative alpha. Thus, there is disagreement about the return implications of ES performance within both traditional and sustainable investors.[20]

To the investors who answered +1 or +2 to the previous question, we 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 (62%/0.71). By far the most popular response (95%/1.43) was: "Good ES performance is correlated with other characteristics that cause long-term outperformance." This response was most popular (94%/1.36) even among sustainable funds. While unexpected, it is consistent with some of the comments accompanying Table 1, that ES matters not so much per se but as an indicator of other drivers of performance.

Several respondents argued 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

[20] US traditional investors were more inclined than non-US traditional investors to believe that ES leaders will underperform (15% vs. 6%). In contrast, US sustainable investors were more inclined than their non-US counterparts to believe that ES leaders will outperform (83% vs. 68%).

environment and investment climate." A sustainable fund manager wrote that "ES management is a proxy for management quality overall and the willingness for companies to take short term pain in exchange for long term gains."

The third most popular answer (53%/0.50) was "Increasing investor demand for good ES performers will drive their prices up over time": that changing 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."

The 39 investors who believed good ES performance leads to long-term underperformance in Table 3 were asked why they believed this. The results are in Table 4, Panel B. 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."

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% of respondents believe that bad ES performers will underperform, 29% predict no link, and 7% forecast outperformance. Free-text fields stated that bad ES performance matters directly by increasing the risk of regulatory action, media scrutiny or consumer backlashes, and indirectly because it signals poor management. A sustainable investor wrote that underperformance "is likely triggered by significant controversial events (for instance lawsuits, fines, bad press) rather than consistent underperformance through time." The idea that ES performance affects downside risk will also receive support in later questions.

Recall that more sustainable than traditional investors predicted ES leaders to outperform (73%/0.85 compared to 45%/0.36). For ES laggards, the responses were more aligned, with 67%/-0.73 (61%/-0.67) of sustainable (traditional) investors forecasting underperformance. 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: failure to achieve a sufficient level of hygiene can be highly detrimental to performance, but exceeding this level has 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. A sustainable interviewee 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 set their ES performance at the optimal level and, if not, why. Table 6 asks: "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. The responses were similar across traditional and sustainable investors, so we only report aggregate results.

The modal response for all eight dimensions is "0: neither over nor underinvest," and for five of the eight, it is also the majority response. The average responses vary narrowly between -0.04 and +0.34. Only 12% (18%) of respondents believe that there is significant underinvestment (overinvestment) in even a single ES issue. Thus, most fund managers believe that, overall, companies invest in ES optimally, which may explain the declining support for ES shareholder proposals.[21]

[21] For example, "Voting Matters 2023" by ShareAction found that the proportion of ES resolutions receiving majority support fell from 21% in 2021 to 3% in 2023. They studied resolutions in the US, Canada, Japan, Australia, and Europe, although the majority were in the US.

However, it is far from the case that investors believe that all companies are dealing with all issues perfectly. Only 13% of respondents believe companies invest optimally in every ES issue. For each issue, at least 40% of investors believe that firms invest either too much or too little. This is consistent with investors selectively targeting their ES engagements to specific firms and issues. The responses also indicate that investors distinguish between different ES dimensions, rather than viewing ES performance as homogenous: 32% of investors cited both at least one ES dimension on which companies overinvest and at least one on which they underinvest. The highest response for overinvestment was for greenhouse gas emissions (44%); for underinvestment it was ecological impacts (28%).

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?" The most common reason in Table 7, Panel A was "The public, the media, or employees pressure them to overinvest" (79%/3.02), 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 induce them to invest in immaterial issues. An interviewee explained that some investors do so to improve their own ES metrics, which are bolstered if companies improve even irrelevant measures of ES performance.

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?" The most popular responses, shown in Table 7, Panel B, were "investors are too short-termist" (70%/2.82) and "companies are too short-termist" (66%/2.72). It is interesting that respondents blame investors slightly more 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 performance. Taken together, these results suggest that companies are not immediately rewarded for their ES investments though higher stock prices, contradicting market efficiency.

While ES targets in executive pay could be one way to overcome short-termism, compensation incentives were viewed as a driver of both overinvestment (44%/2.23) and underinvestment (46%/2.34) in ES 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, leading to overinvestment in immaterial but quantitative dimensions and underinvestment in material but qualitative ones. One investor commented that "companies don't need to incentivize ES issues specifically if they pay managers based on long-term TSR outcomes," consistent with Flammer and Bansal's (2017) evidence that long-term CEO pay has a positive effect on ES performance.

### *3.4 Summary*

Our questions on investor beliefs yield the following conclusions:

1. Most sustainable investors expect ES leaders to deliver positive alpha and ES laggards negative alpha. Traditional investors are more likely to agree with the latter than the former, but overall hold surprisingly similar beliefs. 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.
2. 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 that investors view certain ES dimensions as material for certain companies, with most traditional and sustainable investors viewing at least some ES dimensions as material. 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 view ES performance as interlinked with other drivers of performance. Sometimes it affects other factors that improve financial returns; other times it signals performance on other value-relevant dimensions.
4. Investors believe that ES performance on employee and consumer-related issues are most material to long-term value, potentially because they are internalized even in the absence of government action. Demographic diversity is perceived as least material.
5. Investors believe that, in general, companies invest optimally in ES, but at least 40% believe that firms over- or under-invest in each ES issue. The most common explanation 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*

The 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 27% of respondents would tolerate any sacrifice (i.e., of 1 basis point or above); even for sustainable investors, this proportion is only 30%. Just 5% of sustainable investors and 2% of traditional investors selected the highest sacrifice of 50 basis points or more. Even 50 basis points is a relatively small reduction in the cost of capital, with a likely limited impact on corporate decision making. In the context of climate change, Pedersen (2025) finds that a 50 basis point change in the cost of capital is equivalent to a carbon tax of only $5 per tonne. 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 comments stated that, despite their answer, there should be no trade-off for the right investments, 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 proportion of respondents whose objective function is a weighted sum of financial returns and ES impact is almost certainly smaller than the 27% who stated that they would sacrifice returns.

33% of respondents explicitly stated "zero – I would not tolerate any sacrifice," with multiple free-text fields highlighting fiduciary duty as the reason, even among sustainable investors. Typical comments from traditional investors were "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. … 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 would not tolerate any sacrifice.

These results are interesting because many models of SI assume that shareholders place significant weight on ES objectives (impact or values). While trading off financial for other objectives may be possible for asset owners, many asset managers believe it is inconsistent with fiduciary duty. Note that our question asked whether respondents would passively "tolerate" a sacrifice by companies. In beta-testing, we asked a more active question, "How much long-term risk-adjusted total shareholder return would you sacrifice to improve ES performance?," but all beta-testers answered zero because of fiduciary duty. Thus, the proportion of investors who would take actions that sacrifice financial returns, such as subsidizing negative-NPV ES investments or encouraging firms to make such investments –

the actions analyzed by many SI models – is likely even lower than the proportion willing to tolerate sacrifices by companies. Thus, standard models of SI may not apply when fund management is delegated. Similarly, some policymakers and commentators expect the asset management industry to address societal issues such as climate change. Our results, however, suggest that fiduciary duty hinders them from doing so (see also Gosling and MacNeil, 2023).

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."[22] This is surprising, since any investment exhibits diminishing returns and trade-offs (Edmans, 2023b), and most investors do not believe that companies are systematically underinvesting in ES (Table 6). Several free-text fields qualified this response: investors do not believe there to be no trade-off in general, but only for particular ES investments and for reasonable magnitudes. For example, a sustainable fund manager wrote: "The RIGHT investments should be return enhancing. I would not tolerate any sacrifice for investing in immaterial ES improvements or puff projects." 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 claimed that many firms have projects available that improve both ES performance and financial returns. One sustainable investor pointed out that "there's always a way to do it sensibly, and to do it creating value for shareholders." These responses suggest that most of the "no trade-off" respondents would not tolerate a firm sacrificing returns for ES.

### *4.2 Constraints*

The next set of questions explore the ES-related constraints that fund managers face and their consequences. Table 9, Panel A summarizes investor responses to "Have firmwide ES policies, your

[22] 27% of US traditional funds believe there is no trade-off vs. 43% for their non-US counterparts.

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.

72% of respondents have changed their behavior because of ES constraints. This figure remains high, at 62%, for traditional funds (52% even for US traditional funds): strikingly, ES concerns change their investment behavior despite not being marketed as sustainable. One interviewee said that all institutional clients have ES teams that engage with funds, including traditional ones, about ES; others mentioned client-specific mandates that impose ES constraints on 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." One sustainable investor wrote that the EU Sustainable Finance Disclosure Regulation gives "an incentive for asset managers to try to create the greenest products to win money (rather than selecting companies based on expected outperformance)." Another stated that "due to our sustainable investment mandate … our fund did not hold oil and gas companies in 2023, even though … certain of these companies were well positioned for strong short term performance."

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 are neutral (rather than negative) for firm value, engagement involves time and resource costs, as a later question confirms. One sustainable investor wrote that "firmwide commitments such as NZAM[23] 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."

[23] NZAM stands for the Net Zero Asset Managers initiative, an international group of asset managers that has committed to supporting the goal of net zero greenhouse gas emissions by 2050.

Interestingly, ES constraints are sometimes detrimental to not only financial but also ES performance – the very outcome that many 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."[24] 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." The latter prevents them from rewarding companies in brown industries for ES improvements, thus reducing their ex-ante incentives. Around 20% of both investor types responded 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."

The natural question is why firms or their clients impose ES constraints on fund managers.[25] One likely reason is frictions in delegated portfolio management. Many SI models feature asset owners with an objective function of α*financial returns + (1-α)*ES impact. In reality, most asset owners hire asset managers, whom they cannot induce to maximize such an objective function, since most ES outcomes are non-contractible. However, specific actions may be contractible, and constraining such actions may help achieve the desired ES impacts (for example, excluding some industries may increase their cost of capital). It is an open question as to how effective constraints are in achieving clients' objectives: for example, exclusion may have a limited impact on the cost of capital and may hinder engagement.

[24] ES constraints can also prevent investors from investing in ES leaders. One 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 provider) was too low.
[25] 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.).

A second potential reason for constraints is that asset owners' objective function may prioritize ES values over ES impacts: they may suffer disutility from investing in stocks with particular characteristics. If these characteristics are contractible, constraints can prevent asset managers from holding such stocks. Several interviewees mentioned that constraints were designed to attract clients with particular values. Moreover, constraints may also reflect the values of the public. An interviewee explained that, if white phosphorus ends up killing children in a warzone, then a fund family that owns a producer of white phosphorus may suffer substantial reputational damage – even if the white phosphorus is a tiny percentage of 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.[26]

"None of the above" – i.e., ES constraints had no effect on their behavior – was the response given by 28% of investors (38% traditional, 15% sustainable). In free-text responses, many explained that their only mandate is financial returns and that their funds are not marketed as sustainable. For sustainable investors who do not perceive constraints, sustainable investing is an investment style, similar to value or growth investing, that the fund manager believes will improve long-term returns. An interviewee explained that the mandate "is a constraint but it does not constrain us, because it is what we would do anyway."

Since Table 9, Panel A combined multiple ES constraints to explore their aggregate effect, Panel B disaggregated them. We asked "What caused you to take these actions? Select all that apply" to the 347 investors who selected at least one consequence in Panel A. We report the responses as a proportion of all investors in each category, including those whose behavior was unaffected by

[26] Due to this policy, this investor had to sell an air conditioning company that generates a tiny percentage of revenue from selling white phosphorus to its country's ministry of defense, and is required to do so due to a long-term contract.

constraints. Fund mandates are a more important ES constraint for sustainable investors (cited by 60%) than traditional investors (21%). More surprising is the importance of firmwide policies and client wishes for traditional funds, each cited by 32%, although less than the 54% and 38% for sustainable funds.[27] Firms may, for example, have policies on board diversity or carbon emissions that apply to all their funds, and clients may express ES wishes that go beyond the mandate. Thus, several mechanisms besides the fund mandate impose ES constraints on fund managers.

In Panel C, we asked the same investors "What were the consequences of these actions for the risk-adjusted returns of your fund?" The responses are again reported as proportions of all investors in each group, including those unaffected by constraints.[28] 30% (23% traditional, 38% sustainable) suffered a small, moderate, or large reduction in returns, with nearly three times as many sustainable as traditional funds experiencing moderate or large reductions. For 21% of traditional and 32% of sustainable investors, the impact on returns was "impossible to quantify." Nearly all interviewees who gave this response explained that the constraint reduced returns in expectation, but the probability distribution 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 ends up increasing realized returns. This means that 23-45% of traditional and 38-70% of sustainable investors (30-55% overall) had to sacrifice financial returns, either in actuality or in expectation, to satisfy ES constraints.

Finally, 14% of investors reported no impact of ES constraints on returns even though constraints changed their behavior, and 2% claimed an improvement in returns. For 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 financial consequence.

[27] These constraints are more significant for traditional funds outside the US: 44% and 34% have faced constraints from firmwide policies and client wishes, compared to 21% and 30% for US traditional funds.
[28] We asked this to the 347 investors who selected at least one consequence in Panel A. However, a glitch in Qualtrics meant that only 326 investors were shown this question. We assume that the responses for the 21 absent respondents would have been identical to the 326 responses captured.

### *4.3 Summary*

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

1. Investors' main objective is financial performance: only 24% (30%) of traditional (sustainable) funds are willing to tolerate companies sacrificing any shareholder returns for ES performance. This casts doubt on asset managers pressuring firms to reduce ES externalities, as suggested by some models of sustainable investing and demanded by policymakers and commentators.
2. 33% of asset managers explicitly stated that they would not tolerate the sacrifice of even 1 bp of return to improve ES performance, with fiduciary duty given as the main reason. 40% claim that no sacrifice is necessary, at least for well-chosen projects.
3. ES constraints are common: 72% of investors reported that external or internal ES constraints caused them to take stock selection, voting, or engagement actions that they would not otherwise. Even for traditional investors, this proportion was 62%, with constraints mostly due to firmwide policies and client wishes. The most frequent consequences were avoiding stocks that they believed would outperform or improve portfolio diversification.
4. For 30-55% of all investors, these actions led to a sacrifice of financial returns. Paradoxically, constraints sometimes prevented investors from taking actions to improve or reward ES performance – the very goals that many ES constraints are designed to bring about.
5. These results imply a need for 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). Such models could, for example, explore how effective the combination of ES constraints and endogenous matching of clients to funds is at achieving asset owners' objectives.

## 5. Actions

The next set of questions investigate the extent to which ES performance affects investor actions. Investors make three main decisions: stock selection, voting, and engagement. 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)." We sort the reasons offered into four categories: constraints, financial motivations, marketing motivations, and ES impact motivations.

77% of investors (66% traditional, 91% sustainable) often under- or overweight stocks because of ES performance for at least one of the stated reasons. Sustainable investors have significantly higher responses to all of the options than traditional investors. Their most important motivations were the constraints from fund mandates (75%/3.04), firm values or policies (60%/2.58), and client values (60%/2.56), all of which ranked above financial reasons. This underlines the pivotal role ES constraints play for sustainable investors, consistent with Table 9.

Financial motivations came second for sustainable investors, who rated improving returns 56%/2.46 and avoiding downside risk 57%/2.40. For traditional investors, by contrast, financial motivations were most important, especially improving returns (36%/1.80) and avoiding downside risk (40%/1.91). 61% of investors (51% traditional, 74% sustainable) responded 3 or 4 to at least one financial motivation. Thus, incorporating ES performance into stock selection for financial reasons[29] is both widely practiced amongst traditional funds, and not practiced by a sizable minority of sustainable funds. The practice is strongly linked to beliefs: 75% of investors who expressed their

[29] Some practitioners refer to the incorporation of ES performance into the investment process for the purpose of improving risk-adjusted financial returns as "ES integration." See for example https://www.unpri.org/investment-tools/definitions-for-responsible-investment-approaches/11874.article. However, as ES integration into the investment process could alternatively be pursued for values or impact motivations, we do not use that shorthand here.

belief in positive ES alpha in Table 3 also use ES performance in stock selection for financial reasons, versus only 41% of investors without that belief. In fact, beliefs are more strongly associated with this practice than mandates: sustainable fund managers are only 23 percentage points more likely than traditional managers to use ES performance this way.

For traditional investors, the second most important reason to consider ES performance in stock selection is ES constraints, in particular firm values or policies (34%/1.70) and client values (24%/1.65). Thus, the portfolios of many traditional funds are shaped by the policies of the fund family and by soft constraints from client wishes that go beyond the mandate.

These findings imply a significant burden on asset owners. Asset owners who want to understand how ES performance affects fund portfolios need to look beyond labels and mandates to both fund families' ES policies and fund managers' beliefs about ES alpha. Similarly, academic research on sustainable investing should study traditional as well as sustainable funds.

Both investor types gave low scores to "to avoid stocks that are volatile" (15%/1.11 traditional, 23%/1.39 sustainable), while "to avoid downside risk" (40%/1.91, 57%/2.40) was significantly more popular. Many models feature mean-variance investors, where downside risk is fully captured by lower expected returns and higher volatility. Investors, however, are particularly concerned with underperformance, perhaps because it could lead to outflows or cost them their job. Alternatively, as suggested by prior results, investors may view ES performance as a hygiene factor, consistent with Hoepner et al.'s (2024) result that ES engagement reduces downside risk.

Marketing considerations – improving the fund's sustainability rating and improving its reputation – motivate ES incorporation for a significant number of sustainable funds (36%/1.83 and 30%/1.69, respectively). For traditional investors, these motivations are much less relevant, with average scores below one.

Impact motivations were least popular among both investor types. "To reward companies for improving ES performance / penalize companies for not doing so" and "to affect companies' cost of capital" scored well below 2 even for sustainable investors and below 1 for traditional investors; the latter was the overall lowest-ranked response (13%/1.14). This could be because stock selection has a negligible effect on the cost of capital (Berk and van Binsbergen, 2025), or because firms' investment decisions are relatively unresponsive to the cost of capital (Gormsen and Huber, 2025). Interviewees highlighted the former concern: that their trading has a very small effect on market prices.

Figure 1 uses Venn diagrams to summarize the returns, impact, and values motivations for incorporating ES into stock selection. We classify a fund manager as being motivated by returns if they answer 3 or 4 to any of "to avoid downside risk," "to improve returns," or "to avoid stocks that are volatile;" values for "to be consistent with client values;" and impact for "to reward companies for improving ES performance" or "to affect company cost of capital."[30] "None" refers to investors that did not answer 3 or 4 to any motivation. Among traditional investors, 51% are motivated by returns, 24% by values, and 20% by impact; among sustainable investors, these proportions are 74%, 60%, and 41%. Thus, for both types, stock selection is affected more by ES values than expected ES impacts. For 59% of sustainable investors, ES impact is not a frequent determinant of stock selection. On the other hand, 38% of traditional investors often over- or underweight stocks because of ES values or impact, underlining the large heterogeneity within investor types.

### *5.2 Voting*

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

[30] Since fund mandates and firm policies can be motivated by returns, impact, or values considerations, we exclude them from this analysis.

(24% traditional[31], 31% sustainable) had ever voted for a slightly negative proposal, while 78% of investors had supported a neutral proposal. In free-text fields and interviews, respondents highlighted that fiduciary duty constrains them from supporting negative proposals, and that clients do not pay them to destroy shareholder value.

We asked investors who supported neutral or negative proposals why they did so, and Panel C illustrates the results. Consistent with earlier findings, ES constraints were the most common response.[32] 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. Just as clients may have a taste for investing in ES leaders, even if doing so does not create ES impact, they may also have a taste for voting for ES proposals, even if they have limited impact, and even if the vote is unlikely to be pivotal.

An interviewee explained that many fund managers want a "quiet life," and voting in a way that could be seen as inconsistent with the mandate, even if consistent with shareholder returns, would lead to lots of client questions. Free-text fields and interviews indicated that many ES proposals have a negligible effect on shareholder value, so in many cases it is easiest to support them. One 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 [shareholder value] but is good overall [for society], then that is worthwhile."

[31] This is one of the few figures that differed markedly across geographies: it was 18% in the US vs. 29% outside.
[32] Consistent with our results, Michaely, Ordonez-Calafi, and Rubio (2024) find that sustainable funds in non-ES fund families support ES proposals when their votes are unlikely to matter, but vote against when they are likely to be pivotal.

The least popular response 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. The percentages were similar (19% and 7%) for diversified funds owning more than 100 stocks. This is consistent with Gosling (2025)'s legal and conceptual arguments for why universal owners cannot engage in such behavior. For all responses, support differed by under ten percentage points between sustainable and traditional investors.

*5.3 Engagement*

Table 12, Panel A asked respondents "Do you ever engage with companies to improve their ES performance?" 76% of investors responded in the affirmative. This number was 64% even for traditional investors and 57% for US traditional investors. Thus, ES engagement is not the exclusive domain of sustainable funds. Traditional investors are significantly more likely (76% vs. 51%) to engage on ES if they also incorporate ES performance into stock selection for financial reasons. By contrast, most sustainable funds engage on ES independently of their stock selection behavior (93% vs. 88%).

To the investors who answered "Yes" in Panel A, we asked "What determines whether you engage with a company on an ES issue?" Panel B shows that the two most popular responses were "How much the issue affects long-term shareholder value" (84%/3.34) and "Our stake in the company" (62%/2.58), which were also most popular among sustainable investors (83%/3.35 and 60%/2.52). Thus, the main motivation for ES engagement is financial; the responses are consistent with any model of engagement in which a shareholder's benefit from engaging is the shareholder value uplift multiplied by its stake in the firm. Empirically, Heath, Macciocchi, and Ringgenberg (2024) find that engagement is predominantly motivated by financial concerns.

"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 the constraint of fiduciary duty. As one sustainable investor wrote, "our promise to clients … 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."

"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. (We did not ask about constraints from fund mandates since they rarely stipulate engagement.) The least popular responses 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 evidence that reputational concerns and ratings are weaker constraints than firm policies, fund mandates, and client wishes.

The 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 low benefits 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).

### *5.4 Summary*

Our questions on how ES performance affects investor actions yield the following conclusions:

1. ES constraints from fund mandates, firmwide policies, or client wishes significantly influence fund managers' stock selection, voting, and engagement. For sustainable investors, these

constraints are at least as important as financial considerations. They also affect many traditional investors, although financial motivations are more important for them.

2. Financial considerations matter, with 74% (51%) of sustainable (traditional) investors often adjusting portfolio weights based on ES performance for financial reasons. Reducing downside risk is slightly more important than improving returns, and significantly more important than reducing volatility. The least important motivations are those that seek to impact firm behavior, such as reducing the cost of capital.
3. Incorporating ES into stock selection for financial reasons is practiced (and not practiced) by significant proportions of both traditional and sustainable investors. The extent to which investors do so is more strongly related to their beliefs in ES alpha than whether their mandate is traditional or sustainable, which makes these beliefs important for asset owners.
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. ES constraints are a more important reason than the proposal's likely impact on society. Effects on other companies owned by the investor are least important.
5. 76% of investors overall, and 64% of traditional investors, have engaged with companies to improve their ES performance. For both traditional and sustainable investors, the most important considerations are the effect on shareholder value and the investor's stake in the firm. Concerns for sustainability rating and reputation are least important. Traditional funds are one-third more likely to engage if they also incorporate ES into stock selection for financial reasons, while sustainable funds are highly likely to engage regardless.
6. 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 asked investors "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)." 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 suggests that investors care about carbon risk mostly for non-financial reasons, consistent with Krueger, Sautner, and Starks (2020), rather than for financial reasons (e.g., Bolton and Kacperczyk, 2021). Moreover, 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 an attempt to 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 interviewee said that clients have a distaste for emitting firms, and that disinvesting would have no social impact.

For traditional investors, no response received an average rating above 2, with "carbon emissions are bad for wider society" most popular (36%/1.74), followed by "higher carbon emissions increase downside risk" (31%/1.69). For sustainable investors, "carbon emissions are bad for wider society" was again top (61%/2.62), while client wishes (58%/2.52), firm values or net zero policies (54%/2.40), downside risk (54%/2.36), fund mandates (54%/2.32), and fund reputation (42%/2.12) all scored above 2. The differences between sustainable and traditional funds likely arise 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 overall least popular response was "Higher carbon emissions increase returns" (4%/0.69), with "Higher carbon emissions lower returns" rated significantly higher (22%/1.45).[33] This contrasts the academic literature, which documents a positive or no relationship between emissions and returns (Bolton and Kacperczyk, 2021; Aswani, Raghunandan, and Rajgopal, 2024; Atilgan et al., 2024; Zhang, 2025). Nevertheless, "higher carbon emissions lower returns" remained significantly below 2 for both traditional (16%/1.23) and sustainable investors (31%/1.75), suggesting that return expectations are less important for funds' attitude to carbon emissions than many ES constraints. Also notably, returns were significantly less popular than downside risk for both sets of investors, echoing earlier findings that portfolio managers 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? (0=not at all important, 4=very important)." 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 itself rather than wider society – the responses are similar, although diversity is considered less important than carbon emissions overall. While demographic diversity has received most attention, we did not restrict our question to this aspect to allow investors to express their views on the aspects they deem important.

For investors in aggregate, the only response with an average rating above the midpoint of 2 was "board diversity is good for wider society" (41%/2.02), followed by "board diversity reduces downside risk" (34%/1.78). As with carbon emissions, given investors' limited belief that they can affect the cost of capital, the societal motivation may reflect clients' ES values rather than a desire for ES impact. For sustainable investors, "board diversity is good for wider society" (51%/2.31) also ranked first, with

[33] We deliberately specified "returns," not "risk-adjusted returns" as in prior questions, as Bolton and Kacperczyk (2021) argue that higher returns to emitting companies are compensation for risk.

"our firm's values or policies require us to consider board diversity" (51%/2.25) second, and "board diversity reduces downside risk" (46%/2.10) fourth. In general, ES constraints are less important than for carbon emissions, consistent with the greater attention paid to the latter, and with fund mandates that exclude fossil fuels or meet decarbonization pathways being more common than board diversity mandates. As with carbon emissions, sustainable investors rated all reasons as more important than traditional investors.

The third highest overall 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 that of carbon emissions (the response to "higher carbon emissions lower returns" was 22%/1.45). This is surprising given the academic evidence that demographic board diversity has no effect on returns, and a negative effect if mandated (see Fried (2021) for a survey). However, free-text fields consistently highlighted that investors assess diversity in experience, skills, and cognitive style, which they believe to be more material than demographics. 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 differently, and potentially more accurately, than the ESG ratings used by most academic studies.

### *6.3 Summary*

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

1. Many investors' views on the link between carbon emissions/board diversity and shareholder returns contrast academic findings: investors associate higher emissions with lower returns, and greater diversity with higher returns, with few investors holding the opposite views. Even more investors believe that high emissions increase downside risk and board diversity reduces it.
2. Despite perceptions of a link to shareholder returns, the most common reason for considering carbon emissions and board diversity in investment decisions is their impact on wider society.

3. Fund mandates, firmwide policies, and client values are also more important than improving expected returns, and of similar importance to reducing downside risk. These ES 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 whether, why, and how they incorporate firms' ES performance into investment decisions. We asked about beliefs, objectives, constraints, and actions, and found that many standard assumptions of sustainable investing research contrast with actual practices. Our results suggest alternatives to bring research closer to reality.

The first important takeaway is that the dominant objective of fund managers, including of sustainable funds, is financial performance. Only a minority are willing to sacrifice any returns for ES performance, largely due to fiduciary duty concerns, and very few would tolerate a substantial sacrifice. This contrasts standard SI models, which assume that actions are taken by asset owners (principals) who maximize an objective function that includes ES performance. In reality, most stock selection, voting, and engagement decisions are taken by asset managers (agents), whose objective function is purely financial.

Moreover, both traditional and sustainable fund managers rank ES last out of six drivers of shareholder value, and do not believe that companies are systematically underinvesting in ES. These beliefs, combined with the dominant financial objective, imply that the asset management industry is unlikely to lead the charge to improve firms' ES performance.

The second takeaway is the importance of ES constraints, which for many fund managers are the most important reason for considering ES performance. Constraints from mandates particularly drive behavior for sustainable funds, and are arguably the distinctive feature of sustainable funds given the

similarity of objectives. However, ES constraints also matter for traditional funds, especially from firmwide policies and client wishes.

Imposing ES constraints might be a second-best solution to a principal-agent problem. Principals who care about ES impact may be unable to write a contract forcing fund managers to maximize their objective function, so they approximate their preferred portfolios by choosing between return-maximizing funds with different ES constraints. Alternatively, constraints may optimally arise because principals care about ES values and have a distaste for holding particular stocks within their portfolio.

A fruitful theoretical direction would be to develop models of SI under delegated portfolio management that incorporate ES constraints, and a fruitful empirical direction would be to study how such constraints affect stock selection, voting, and engagement. It is unclear how effective constraints are at achieving asset owners' goals, as constraints do not change the fund's objective, only capture measurable ES performance, and are blunt instruments not tailored to different contexts. They may also fail to induce asset managers to improve companies' ES performance: while constraints can prevent errors of commission (e.g., investing in tobacco), they are unlikely to prevent errors of omission, such as not engaging effectively on ES issues.

The third takeaway is the large heterogeneity of beliefs, and actions motivated by beliefs, among investors. For example, 13% rank ES performance as one of the top three drivers of firm value while 47% rank it last; 26% view greenhouse gas emissions as highly material while 10% see them as immaterial; 44% consider ES very often in stock selection while 10% do so rarely; and 57% expect good ES performers to generate positive alpha while 8% expect negative alpha. These differences do not polarize neatly across traditional vs. sustainable lines, and they affect behavior: fund managers who associate good ES performers with positive alpha are much more likely to select stocks and engage based on ES.

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, with differences in objectives limited by fiduciary duty, variation in behavior may arise 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.

Because beliefs affect behavior, asset owners with ES preferences may find it optimal to select asset managers who believe that incorporating ES performance into stock selection and engagement improves returns. Such belief-driven ES incorporation may address a wider range of ES issues in a more nuanced way than simply imposing ES constraints on funds. With either approach, asset owners need to consider a complex combination of issues when choosing funds: ES constraints from mandates and the fund family; the fund manager's beliefs and how to identify them; and the fund manager's ability to maximize returns given those constraints and beliefs. Future research might explore whether asset managers can credibly signal their beliefs through their actions, or whether non-believing peers will mimic them – and, if so, how effectively asset owners can identify beliefs.

The fourth takeaway is that differences between typical traditional and sustainable investors are smaller than commonly thought. Both recognize the priority of financial returns and of delivering on their fiduciary duty, and both view long-term shareholder value as the main reason for engaging on ES issues. Majorities of both will not tolerate companies sacrificing returns to improve ES performance, and majorities of both have never voted for a shareholder proposal that was even slightly negative for firm value. The differences that exist tend to result from differences in beliefs or constraints.

Regulation, such as the SEC's Names rule, the EU's Sustainable Finance Disclosures Regulation, and the UK's Sustainable Disclosure Requirements, aim to ensure that funds with a sustainable label act according to the regulator's definition of sustainability. However, our results suggest that objectives, constraints, and beliefs matter more than fund labels. They suggest that a more effective

disclosure regime might focus on objectives (whether the fund has a purely financial goal or may sacrifice return for ES performance), constraints, and maybe even beliefs (what the fund manager believes about ES alpha and how this is reflected in stock selection, voting, and engagement). Ultimately, transparency around these underlying drivers may better help clients choose funds that will achieve their objectives.

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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)

| | Mean | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| Strategy and competitive position | 1.67 [a] | 59% | 25% | 11% | 3% | 2% | 1% |
| Operational performance | 2.36 [a] | 25% | 38% | 21% | 11% | 4% | 1% |
| Governance | 3.71 [a] | 6% | 14% | 19% | 32% | 23% | 6% |
| Corporate culture | 4.12 [a] | 7% | 11% | 17% | 18% | 24% | 24% |
| Capital structure | 4.13 [a] | 3% | 9% | 25% | 22% | 21% | 21% |
| ES performance | 5.01 [a] | 2% | 3% | 8% | 15% | 26% | 47% |

The superscript reports whether the mean is significantly different from 3.5 (the average 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 well-being | 2.59 [a] | 6% | 8% | 27% | 42% | 18% |
| Consumer health, welfare, and privacy | 2.53 [a] | 5% | 10% | 30% | 34% | 20% |
| Greenhouse gas emissions | 2.50 [a] | 10% | 10% | 25% | 29% | 26% |
| Pollution and waste management | 2.49 [a] | 7% | 12% | 24% | 40% | 18% |
| Treatment of suppliers | 2.31 [a] | 5% | 14% | 37% | 33% | 11% |
| Ecological impacts (including biodiversity and water usage) | 2.23 [a] | 9% | 17% | 29% | 31% | 14% |
| Community impact | 1.99 [a] | 10% | 20% | 37% | 26% | 6% |
| Demographic diversity (e.g. gender, race) | 1.68 [a] | 18% | 25% | 31% | 21% | 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.

## 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 (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 outperform or underperform in long-term risk-adjusted total shareholder return? | **0.57** [a] | **2%** | **6%** | **35%** | **48%** | **9%** |
| | 0.36 [a,a] | 2% | 8% | 44% | 42% | 4% |
| | *0.85* [a,a] | *1%* | *2%* | *23%* | *56%* | *17%* |

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 good ES performance leads to long-term underperformance? (-2=strongly disagree, 0=neither agree nor disagree, +2=strongly agree)

All investors (n=285/39)

| **Panel A** | | | | | | |
|---|---|---|---|---|---|---|
| | Mean | -2 | -1 | 0 | +1 | +2 |
| Good ES performance is correlated with other characteristics that cause long-term outperformance | 1.43 [a] | 0% | 0% | 4% | 47% | 48% |
| Good ES performance improves long-term value but the market underprices it in the short term | 0.71 [a] | 1% | 7% | 29% | 45% | 18% |
| Increasing investor demand for good ES performers will drive their prices up over time | 0.50 [a] | 1% | 10% | 36% | 45% | 8% |
| Good ES performance is immaterial or negative for long-term value, but the market excessively discounts good ES performers | -1.04 [a] | 33% | 44% | 19% | 4% | 1% |
| **Panel B** | | | | | | |
| | Mean | -2 | -1 | 0 | +1 | +2 |
| Good ES performance is immaterial for long-term value but the market overprices it | 0.51 [b] | 8% | 15% | 21% | 31% | 26% |
| Good ES performance is correlated with other characteristics that cause long-term underperformance | 0.38 [b] | 5% | 10% | 33% | 44% | 8% |
| Good ES performance worsens long-term value and the market fails to price this in | 0.00 | 18% | 18% | 23% | 28% | 13% |
| Good ES performance improves long-term value but the market overprices it | 0.00 | 10% | 26% | 31% | 21% | 13% |

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 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 (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 outperform or underperform in long-term risk-adjusted total shareholder return? | **-0.70** [a] | **14%** | **50%** | **29%** | **7%** | **1%** |
| | -0.67 [a,–] | 13% | 48% | 32% | 7% | 0% |
| | *-0.73* [a,–] | *15%* | *53%* | *25%* | *7%* | *1%* |

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 [a] | 3% | 16% | 38% | 34% | 10% |
| Pollution and waste management | 0.19 [a] | 3% | 17% | 45% | 32% | 4% |
| Employee wellbeing | 0.17 [a] | 3% | 13% | 51% | 30% | 3% |
| Demographic diversity (e.g. gender, race) | 0.16 [a] | 2% | 17% | 49% | 28% | 4% |
| Consumer health, welfare, and privacy | 0.14 [a] | 3% | 13% | 54% | 27% | 3% |
| Community impact | 0.05 | 2% | 16% | 58% | 23% | 1% |
| Treatment of suppliers | 0.01 | 3% | 17% | 58% | 21% | 1% |
| Ecological impacts (including biodiversity and water usage) | -0.04 | 5% | 24% | 45% | 24% | 3% |

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 7**

**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)

| **Panel A** | | | | | | |
|---|---|---|---|---|---|---|
| | Mean | 0 | 1 | 2 | 3 | 4 |
| The public, the media, or employees pressure them to overinvest | 3.02 [a] | 1% | 5% | 15% | 50% | 29% |
| Investors pressure them to overinvest | 2.76 [a] | 1% | 8% | 21% | 54% | 16% |
| Companies do not sufficiently distinguish between material and immaterial factors | 2.50 [a] | 3% | 10% | 36% | 34% | 17% |
| To improve executives' personal reputation | 2.45 [a] | 4% | 13% | 30% | 42% | 11% |
| Compensation provides incentives to overinvest | 2.23 [a] | 5% | 19% | 32% | 36% | 8% |
| Companies overestimate the financial benefits (e.g. increased returns, lower risk) of ES investment | 1.96 [a] | 7% | 27% | 35% | 26% | 5% |
| Executives themselves care about the environment and society | 1.79 [a] | 10% | 28% | 37% | 23% | 2% |
| **Panel B** | | | | | | |
| | Mean | 0 | 1 | 2 | 3 | 4 |
| Investors are too short-termist | 2.82 [a] | 4% | 9% | 16% | 41% | 29% |
| Companies are too short-termist | 2.72 [a] | 4% | 9% | 22% | 43% | 23% |
| Companies underestimate the financial benefits (e.g. increased returns, lower risk) of ES investment | 2.44 [a] | 7% | 14% | 22% | 44% | 13% |
| Companies lack expertise in how to improve ES | 2.35 [a] | 5% | 14% | 31% | 38% | 11% |
| Compensation incentives place insufficient weight on ES issues | 2.34 [a] | 6% | 16% | 32% | 31% | 15% |
| The public, the media, and employees pay insufficient attention to ES issues | 1.53 [a] | 17% | 35% | 30% | 14% | 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.

## 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 (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 shareholder return would you tolerate a company sacrificing to improve its ES performance? | **33%** | **14%** | **9%** | **3%** | **40%** |
| | 41% [a] | 12% | 9% | 2% | 35% [a] |
| | *22% [a]* | *16%* | *10%* | *5%* | *47% [a]* |

The superscript reports whether the percentages are significantly different between traditional and sustainable investors. a, b, and c represent statistical significance at the 1%, 5%, and 10% level, respectively.

**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 (in bold) is from all investors (n=485, the second column (not italicized) is from traditional investors (n=280, the third column (italicized) is from sustainable investors (n=205). Panels B and C report the proportion of *all* investors in each category, including those that answered "none of the above" in Panel A, giving each response. In Panel C, those responding "None of the above" in Panel A have been included within "No impact on returns."

| **Panel A** | All | Traditional | Sustainable |
|---|---|---|---|
| Avoid stocks we believed would outperform | **38%** | 29% [a] | *51%* [a] |
| Avoid stocks that would improve portfolio diversification | **38%** | 30% [a] | *49%* [a] |
| Engage with companies on ES issues that do not add shareholder value | **28%** | 25% [c] | *32%* [c] |
| Avoid owning ES laggards whose ES performance we could have improved | **22%** | 14% [a] | *33%* [a] |
| Avoid owning ES leaders in a laggard industry | **21%** | 15% [a] | *30%* [a] |
| Focus on visible dimensions of ES performance at the expense of more important ES issues | **20%** | 20% | *21%* |
| Vote for ES resolutions that do not add shareholder value | **19%** | 15% [b] | *23%* [b] |
| Hold stocks we believed would underperform | **7%** | 4% [b] | *10%* [b] |
| None of the above | **28%** | 38% [a] | *15%* [a] |
| **Panel B** | | | |
| Firmwide ES policies | **41%** | *32%* [a] | *54%* [a] |
| Our fund mandate | **37%** | *21%* [a] | *60%* [a] |
| Our clients' wishes | **34%** | *32%* | *38%* |
| Concern for our fund's sustainability rating or reputation | **26%** | *19%* [a] | *37%* [a] |
| **Panel C** | | | |
| No impact on returns | **42%** | *53%* [a] | *28%* [a] |
| A small reduction in returns | **19%** | *17%* | *21%* |
| A moderate reduction in returns | **9%** | *5%* [b] | *14%* [b] |
| A large reduction in returns | **2%** | *1%* | *3%* |
| An improvement in returns | **2%** | *2%* | *2%* |
| Impossible to quantify | **26%** | *21%* [b] | *32%* [b] |

The superscript reports whether the percentages are significantly different between traditional and sustainable investors. a, b, and c represent statistical significance at the 1%, 5%, and 10% level, respectively.

## Table 10

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

The first column of responses (in bold) is from all investors, the second column (not italicized) is from traditional investors, the third column (italicized) is from sustainable investors.

| | All (n=486) | Traditional (n=279) | Sustainable (n=207) |
|---|---|---|---|
| *Constraints* | | | |
| To be consistent with our fund's mandate | **2.21 [a] (48%)** | 1.59 [a,a] (28%) | *3.04 [a,a] (75%)* |
| To be consistent with our firm's values or policies | **2.07 [a] (45%)** | 1.70 [a,a] (34%) | *2.58 [a,a] (60%)* |
| To be consistent with our clients' values | **2.04 [a] (40%)** | 1.65 [a,a] (24%) | *2.56 [a,a] (60%)* |
| *Financial motivations* | | | |
| To avoid downside risk | **2.12 [a] (47%)** | 1.91 [a,a] (40%) | *2.40 [a,a] (57%)* |
| To improve returns | **2.08 [a] (44%)** | 1.80 [a,a] (36%) | *2.46 [a,a] (56%)* |
| To avoid stocks that are volatile | **1.23 [a] (19%)** | 1.11 [a,b] (15%) | *1.39 [a,b] (23%)* |
| *Marketing motivations* | | | |
| To improve our fund's sustainability rating | **1.33 [a] (22%)** | 0.96 [a,a] (12%) | *1.83 [a,a] (36%)* |
| To improve our fund's reputation | **1.25 [a] (19%)** | 0.93 [a,a] (11%) | *1.69 [a,a] (30%)* |
| *ES impact motivations* | | | |
| To reward companies for improving ES performance / penalize companies for not doing so | **1.32 [a] (21%)** | 0.98 [a,a] (13%) | *1.77 [a,a] (30%)* |
| To affect companies' cost of capital | **1.14 [a] (13%)** | 0.91 [a,a] (9%) | *1.43 [a,a] (19%)* |

Figures are the mean response for each option with, in brackets, the proportion of respondents selecting 3 or 4. 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 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)

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

| **Panel A – proposal even slightly negative for firm value** | All | Traditional | Sustainable |
|---|---|---|---|
| Yes | **27%** | 24% [c] | *31%* [c] |
| **Panel B – proposal neutral for firm value** | All | Traditional | *Sustainable* |
| Yes | **78%** | 73% [a] | *84%* [a] |
| **Panel C – why did you vote for such proposals?** | Proposal was negative | Proposal was neutral | |
| To be consistent with our firm's values or policies | 55% | 65% | |
| To be consistent with our clients' values | 52% | 49% | |
| To be consistent with our fund's mandate | 49% | 52% | |
| I expected it to have a positive impact on society | 33% | 41% | |
| Proxy advisor recommendations | 30% | 39% | |
| To improve our fund's reputation or sustainability rating | 19% | 15% | |
| I expected it to have a positive impact on other companies we own | 16% | 20% | |

The superscript in Panels A and B reports whether the percentages are significantly different between traditional and sustainable investors. a, b, and c represent statistical significance at the 1%, 5%, and 10% level, respectively.

**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)**

**Panel C: Why do you not engage with companies to improve their ES performance? (0=not at all important, 4=very important)**

In Panel A, the first column of responses (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). In Panel B the responses are from investors who responded "Yes" in Panel A (n=364). In Panel C the responses are from investors who responded "No" in Panel A (n=117).

| **Panel A** | All | Traditional | Sustainable |
|---|---|---|---|
| Yes | **76%** | 64%[a] | *92%*[a] |

| **Panel B** | Mean | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| How much the issue affects long-term shareholder value | 3.34[a] | 2% | 4% | 10% | 25% | 59% |
| Our stake in the company | 2.58[a] | 9% | 10% | 20% | 38% | 24% |
| How much the issue affects wider society | 2.32[a] | 8% | 13% | 32% | 35% | 13% |
| How much our firm cares about the issue | 2.29[a] | 12% | 10% | 30% | 33% | 15% |
| How much our clients care about the issue | 2.27[a] | 8% | 13% | 35% | 32% | 12% |
| The time, resource, and financial costs of engagement | 2.08[a] | 13% | 15% | 34% | 28% | 10% |
| How much the issue affects other companies we own | 2.07[a] | 16% | 13% | 33% | 26% | 13% |
| The need to prioritize given non-ES issues we are engaging on | 1.77[a] | 20% | 15% | 40% | 21% | 5% |
| How much our reputation would be improved by engaging | 1.42[a] | 29% | 22% | 31% | 15% | 3% |
| How much our sustainability rating would be improved by engaging | 1.26[a] | 38% | 17% | 27% | 15% | 3% |

| **Panel C** | Mean | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| Our stake in the company is too small to be effective | 2.47[a] | 18% | 6% | 20% | 24% | 32% |
| The time, resource, and financial costs of engagement | 2.43[a] | 18% | 5% | 22% | 26% | 29% |
| We can sell our stake if dissatisfied with ES performance | 2.33[a] | 22% | 3% | 22% | 26% | 27% |
| The need to prioritize given the non-ES issues we are engaging on | 2.14[a] | 21% | 7% | 30% | 21% | 21% |
| ES performance is immaterial for long-term shareholder value | 1.98[a] | 18% | 15% | 35% | 14% | 18% |
| Management is unlikely to be responsive | 1.74[a] | 27% | 12% | 32% | 20% | 9% |
| Companies are already managing their ES issues well | 1.61[a] | 25% | 13% | 44% | 15% | 4% |
| We have insufficient information about ES performance | 1.52[a] | 31% | 12% | 37% | 15% | 5% |

The superscript in Panel A reports whether the percentages are significantly different between traditional and sustainable investors. The superscript in Panels B and C 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 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 [a] | 22% | 10% | 22% | 28% | 18% |
| Higher carbon emissions increase downside risk | 1.98 [a] | 22% | 12% | 25% | 29% | 12% |
| Our clients track the carbon footprint of our portfolio | 1.82 [a] | 28% | 12% | 24% | 22% | 14% |
| Our firm's values or net zero policies influence the carbon footprint of our portfolio | 1.71 [a] | 32% | 13% | 21% | 20% | 14% |
| Our fund's mandate constrains the carbon footprint of our portfolio | 1.51 [a] | 41% | 11% | 18% | 15% | 14% |
| Higher carbon emissions lower returns | 1.45 [a] | 32% | 17% | 28% | 18% | 4% |
| Higher carbon emissions increase return volatility | 1.44 [a] | 32% | 18% | 28% | 18% | 4% |
| Our fund's reputation depends on the carbon footprint of our portfolio | 1.42 [a] | 35% | 18% | 24% | 16% | 7% |
| Carbon emissions create a systemic risk to other companies in our portfolio | 1.39 [a] | 31% | 21% | 29% | 14% | 4% |
| Our fund's sustainability rating depends on the carbon footprint of our portfolio | 1.37 [a] | 37% | 16% | 24% | 17% | 5% |
| Higher carbon emissions increase returns | 0.69 [a] | 56% | 23% | 17% | 3% | 1% |

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 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)**

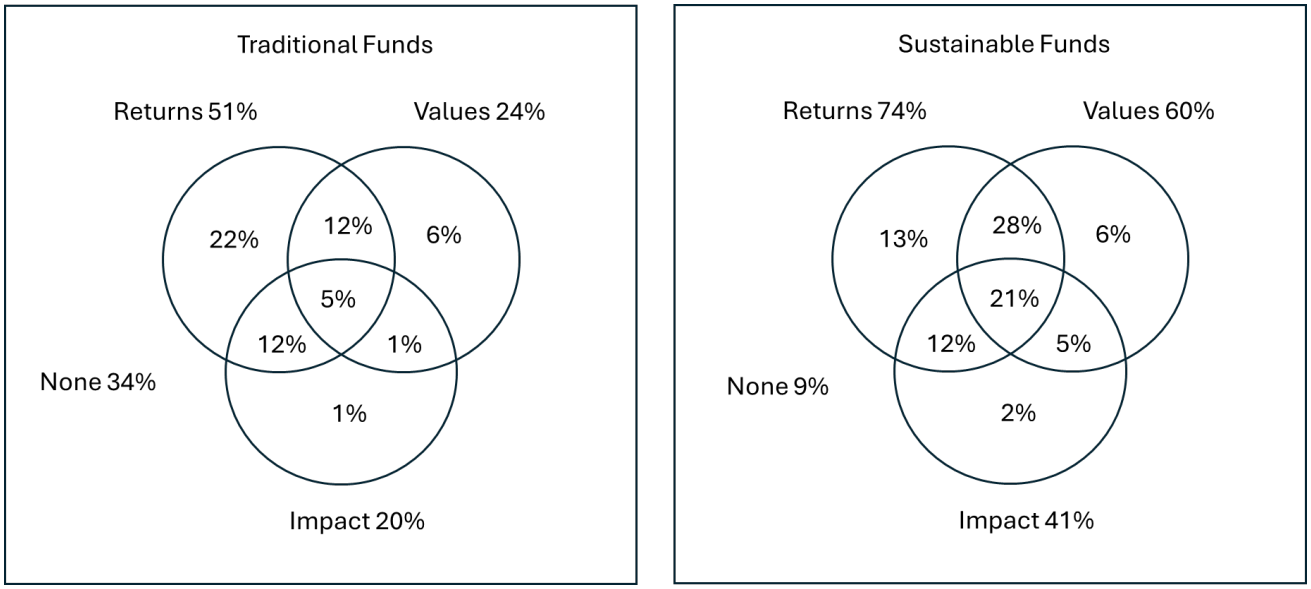
All investors (n=479)

| | Mean | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| Board diversity is good for wider society | 2.02 [a] | 20% | 11% | 28% | 30% | 11% |
| Board diversity reduces downside risk | 1.78 [a] | 25% | 15% | 26% | 26% | 8% |
| Board diversity increases returns | 1.78 [a] | 23% | 14% | 32% | 23% | 8% |
| Our firm's values or policies require us to consider board diversity | 1.74 [a] | 29% | 14% | 22% | 23% | 11% |
| Board diversity reduces return volatility | 1.36 [a] | 34% | 18% | 29% | 16% | 3% |
| Our fund's mandate requires us to consider board diversity | 1.31 [a] | 40% | 17% | 19% | 19% | 5% |
| Our clients track the board diversity of our portfolio | 1.19 [a] | 37% | 23% | 25% | 12% | 2% |
| Lack of diversity creates a systemic risk to other companies in our portfolio | 1.06 [a] | 46% | 19% | 24% | 8% | 4% |
| Our fund's sustainability rating depends on the board diversity of our portfolio | 1.02 [a] | 46% | 20% | 24% | 9% | 2% |
| Our fund's reputation depends on the board diversity of our portfolio | 1.00 [a] | 46% | 21% | 24% | 8% | 1% |
| Board diversity lowers returns | 0.67 [a] | 58% | 21% | 17% | 3% | 1% |

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.

**Figure 1**

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




These diagrams illustrate the responses to the question in Table 10. "Returns" is counted if the fund manager answers 3 or 4 to any of "to avoid downside risk," "to improve returns," or "to avoid stocks that are volatile;" values if "to be consistent with client values;" and impact if "to reward companies for improving ES performance" or "to affect company cost of capital." "To be consistent with our fund's mandate" and "to be consistent with our firm's values or policies" are excluded as these could represent values or impact motivations. "None" is counted if the investor did not answer 3 or 4 to any of the motivations listed in Table 10.

## Appendix A: Additional Survey Contents

Below is the text shown 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 data protection policy and privacy statements. For more information on how we will process the data you provide, please see this participation information sheet.

**OA1 – Online Appendix**

**Respondent demographics**

## Q1. What type is your fund?

| | % | N |
|---|---|---|
| Active equity | 89% | 451 |
| Active multi-asset including equities | 11% | 58 |
| Index equity | 0% | 0 |
| Fixed income | 0% | 0 |
| Other | 0% | 0 |
| Total | 100% | 509 |

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

| | % | N |
|---|---|---|
| Less than $100m | 13% | 65 |
| Between $100m and $250m | 13% | 65 |
| Between $250m and $500m | 11% | 54 |
| Between $500m and $2b | 24% | 122 |
| Above $2b | 40% | 203 |
| Total | 100% | 509 |

## Q3. How many stocks does your fund typically hold?

| | % | N |
|---|---|---|
| <30 | 15% | 74 |
| 30-50 | 44% | 224 |
| 50-100 | 27% | 137 |
| 100-500 | 11% | 57 |
| >500 | 3% | 17 |
| Total | 100% | 509 |

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

| | % | N |
|---|---|---|
| Yes | 43% | 219 |
| No | 57% | 290 |
| Total | 100% | 509 |

## Q5. Where is your fund marketed?

| | % | N |
|---|---|---|
| US | 44% | 223 |
| EU | 61% | 311 |
| UK | 52% | 264 |
| Other (please specify) | 33% | 170 |
| Total | | 968 |

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

| | % | N |
|---|---|---|
| Retail | 12% | 59 |
| Institutional | 22% | 111 |
| Both | 67% | 339 |
| Total | 100% | 509 |

**Q7 – How would you describe your investment style?**

| | % | N |
|---|---|---|
| Fundamental | 82% | 416 |
| Quantitative | 11% | 55 |
| Other (please specify) | 7% | 38 |
| Total | 100% | 509 |