Corporate Misconduct and the Capital Allocation of Prosocial Investors

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Abstract

We show that institutional investors allocate capital based on the prosocial preferences of their clients and their forward-looking information about corporate misconduct. Funds catering to prosocial clients reduce positions in stocks with higher legal risk to avoid outflows caused by exposure to corporate misconduct. We introduce a firm-level measure of prosocial overweight based on portfolio deviations from conventional peer funds. Higher prosocial overweight predicts lower risks of future regulatory fines and lawsuits but at the cost of lower risk-adjusted returns. For high-uncertainty stocks, greater prosocial overweight predicts even lower returns without further reducing legal risk, highlighting a more significant trade-off.

Keywords: Prosocial investing, misconduct, legal risk, mutual funds, portfolio choice, misconduct and lawsuits, corporate responsibility, uncertainty.

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1 INTRODUCTION

Corporate misconduct, whether intentional or unintentional, can impose substantial costs that extend beyond the offending firm, impacting stakeholders and society as a whole. The legal system offers mechanisms to address misconduct: regulators impose fines to penalize infractions, and stakeholders often pursue litigation to recover damages. Although legal risk, such as regulatory violations and litigation, is costly for firms (Armour et al., 2017; Bhagat et al., 1998; Dyck et al., 2024; Karpoff et al., 2008a; Murphy et al., 2009), research shows that firms are more likely to compromise on safety, fairness, and compliance when under financial performance pressure (Caskey and Ozel, 2017; Cohn and Wardlaw, 2016; Kini et al., 2017; Raghunandan, 2021; Rose, 2016; Shleifer, 2004).

Whereas investors motivated by financial returns may tolerate a certain level of corporate misconduct and associated legal risk based on a trade-off between private costs and benefits (Becker, 1968), other investors with prosocial preferences (Bénabou and Tirole, 2006; Benabou and Tirole, 2010; Broccardo et al., 2022; Hart and Zingales, 2017) explicitly consider a corporation's contribution to social welfare when making investment decisions. In recent years, the integration of prosocial considerations, such as environmental, social, and governance (ESG) criteria, into investment strategies has gained significant attention from both institutional and retail investors. In 2020, the Global Sustainable Investment Alliance (GSIA) reported that prosocial investments accounted for $17 trillion, or 33.2% of the total assets under management in the U.S.

In this paper, we study whether institutional investors allocate capital based on the prosocial preferences of their clients and their own information about potential corporate misconduct. Specifically, we examine whether prosocial funds incorporate forward-looking information on regulatory violations and civil lawsuits into their portfolios. Our findings reveal their distinct sensitivity to corporate misconduct and the predictive power of their trades for future legal risk. Funds catering to prosocial investors experience significant outflows when exposed to firms with past regulatory violations or civil lawsuits. In addition, these funds preferentially allocate capital to firms less likely to face corporate misconduct in the future. These results suggest that prosocial investors favor firms with higher compliance standards, and asset managers cater to these preferences by aligning capital allocation with prosocial values.

We then test whether institutional investors allocate capital in accordance with their client's prosocial preferences and their own private information about firms' exposure to future legal risk.[1] We introduce a novel, firm-level measure of prosocial overweight, based on the portfolio deviation of prosocial investors compared to conventional investors, thus controlling for traditional asset-allocation strategies. By aggregating these preferences at the stock level, we capture the consensus view among prosocial investors, reflecting their collective judgment about a firm's prosocial values.[2] We find that our measure of prosocial overweight provides forward-looking insights into future indicators of misconduct, demonstrating its ability to capture proprietary information beyond publicly available data and reflecting prosocial investors' willingness to act on such information.

For indicators of misconduct, we examine regulatory fines and civil lawsuits. Our data includes fines imposed on corporations by U.S. federal and local agencies, which reflect corporate violations investigated and penalized by regulators. Additionally, we use a novel dataset of civil lawsuits filed against corporations in state and federal courts. These lawsuits reveal controversies involving firms where stakeholders seek compensation for alleged damages. Our analysis encompasses a wide range of violations and controversies, including environmental, social, and governance issues. By doing so, we capture all instances where firms breached laws or other norms governing their interactions with civil society. Thus, a firm's exposure to violations and lawsuits serves as an objective, timely, and underexplored measure of the quality of its prosocial conduct.

To identify investors with prosocial preferences, we focus on the subset of prosocial funds among all actively managed open-ended U.S. equity mutual funds from January 2011 through March 2022. Prosocial funds are defined as those managed under an explicit socially responsible investment mandate, such as ethical, sustainability-focused, or broader environmental, social, and governance (ESG) mandates[3] By focusing on active funds, we ensure that these investors do not simply follow third-party ESG ratings,

[1]This is a joint-hypothesis test, simultaneously testing investors' private information and their clients' preferences.

[2]Other studies aggregated portfolio holdings at the stock level to show mutual funds' holdings predict future performance. These studies include Jiang and Sun (2014), Jiang et al. (2014), Antón et al. (2021), Pomorski (2009), Wermers et al. (2012), Chen et al. (2000), and Chen et al. (2002).

[3]Unlike conventional (that is, non-prosocial) funds, prosocial funds have an explicit mandate to incorporate prosocial criteria in their asset allocation. We therefore expect them to be more concerned about corporate misconduct than the average conventional fund investor.

which have been shown to introduce uncertainty about firms' prosocial qualities (Berg et al., 2022b,a; Avramov et al., 2022). Rather, these investors combine data from various rating providers with proprietary information to form their own private assessments of firms' social conduct and legal compliance (Hirai and Brady, 2021).[4]

To test whether investors in prosocial funds actually display prosocial preferences, we start by conducting empirical tests at the fund level. We find that funds with greater exposure to past markers of misconduct experience more significant outflows, an effect that is an order of magnitude stronger for prosocial funds. This indicates that clients of prosocial funds are highly sensitive to markers of misconduct within their portfolios, suggesting stronger prosocial preferences among prosocial investors compared to conventional ones. Consistent with these preferences, we also find that prosocial funds are less exposed to past fines and lawsuits through their portfolio companies compared to conventional funds. Finally, using detailed portfolio-level data, we show that prosocial funds adjust their holdings by reducing exposure to firms likely to face legal events in the future, even after controlling for benchmarks, stock-time, and fund-time fixed effects. Overall, these findings are consistent with our hypothesis that prosocial funds are catered to investors with prosocial preferences.

Next, based on a theoretical framework of asset allocation under prosocial preferences and private information, we construct a stock-level measure of prosocial allocation to test the implications of this framework. In constructing the measure consistently with the framework, we control for the fraction of prosocial investors' assets that are invested according to conventional criteria (Pástor et al., 2023).[5] Drawing from the literature on synthetic controls (Abadie et al., 2010; Abadie and Gardeazabal, 2003) and portfolio evaluation (Cohen et al., 2005; Cremers and Petajisto, 2009; Hunter et al., 2014; Jiang and Sun, 2014), we propose a data-driven methodology to construct, for each prosocial fund, a synthetic portfolio of conventional active funds. We define conventional funds as those funds

[4]For example, BlackRock states in a letter to investors, "We have developed proprietary measurement tools to deepen our understanding of material ESG risks." This letter is available at https://www.blackrock.com/au/individual/blackrock-client-letter.

[5]For example, the Parnassus Core Equity Fund, one of the largest active US equity funds, states in its fact sheet: "The Fund strives to outperform the S&P500 Index on a risk-adjusted basis with a high active share." Moreover, in its ESG guidelines, the fact sheet states: "The Fund evaluates financially material ESG factors as part of the investment decision-making process, considering a range of impacts they may have on future revenues, expenses, assets, liabilities, and overall risk."

that operate under no prosocial investment mandate. For each prosocial fund and quarter, we compare the funds' holdings with the combined holdings of a synthetic portfolio of conventional active funds with the same style as the prosocial fund. This synthetic portfolio is selected to be the conventional active portfolio that best replicates the holdings of the prosocial fund. The stock-level deviations between the prosocial fund's holdings and the synthetic portfolio are aggregated to obtain our quarterly firm-level measure of *prosocial overweight*.

We validate our measure of prosocial overweight by confirming its correlation with existing public information on firms' prosocial conduct, including ESG ratings and past legal records. Our analysis shows that prosocial overweight is positively correlated with ESG ratings and negatively correlated with past legal events, such as regulatory fines and lawsuits. This indicates that prosocial investors tend to favor companies with stronger public records on stakeholder welfare.

In our main analysis, we show that changes in prosocial overweight predict future legal risk, even after considering public information such as firm fundamentals, institutional ownership, stock characteristics, third-party ESG ratings, prosocial-related news, past legal events, and the proportion of total industry prosocial investors invested in the company. An increase in prosocial overweight is associated with a lower risk of future regulatory fines and lawsuits. Specifically, a one standard deviation quarterly increase in the change of prosocial overweight, equal to 1.58 basis points, predicts a reduction of 23.9 basis points and 23.4 basis points in the risk of regulatory fines and litigation, respectively, in the following year. These results remain robust when incorporating time-by-industry fixed effects and using alternative measures of prosocial overweight. These findings confirm that prosocial overweight provides unique predictive insights into future legal risks, highlighting institutional investors' ability to generate incremental information about firms' compliance with legal and social norms.

Next, to examine whether prosocial investors prioritize reducing exposure to corporate legal risk over financial performance, we test the predictive power of changes in prosocial overweight on future stock returns. Our results show that firms with a larger quarterly increase in prosocial overweight tend to deliver lower risk-adjusted returns in the subsequent quarter. Using Fama and Macbeth (1973) regressions, we estimate that a one standard deviation increase in prosocial overweight, equal to 1.58 bps, is associated

with an annualized five-factor alpha of -37.6 bps after controlling for stock characteristics. This result remains robust when incorporating the green-minus-brown (GMB) factor of Pástor et al. (2022). These findings suggest that prosocial investors reduce financial performance to lower exposure to future indicators of corporate misconduct.

Finally, we test whether prosocial overweight reflects private information held by institutional investors with prosocial clients by analyzing differences in uncertainty across stocks. Stocks with higher uncertainty are generally harder to evaluate, so we expect prosocial investors to face a greater trade-off between financial returns and reducing exposure to corporate misconduct in such stocks. We measure financial uncertainty using idiosyncratic volatility and ESG uncertainty using the dispersion in ESG ratings. Consistent with our hypothesis, we find that for stocks with higher uncertainty, changes in prosocial overweight predict lower returns but not lower legal risk, indicating a more significant trade-off for these stocks. This finding has important implications for institutional and retail investors, as it suggests that prosocial investing in uncertain stocks entails a greater cost in financial performance.

Related Literature. Our findings contribute to several research areas. First, a growing body of literature studies the commitment of prosocial funds, particularly socially responsible and ESG funds, to their responsible investing objectives and the performance implications of this commitment (Cremers et al., 2023; Gibson Brandon et al., 2022; Kim and Yoon, 2022; Li et al., 2023; Pástor et al., 2023; Raghunandan and Rajgopal, 2022; von Beschwitz et al., 2023). While these studies primarily focus on fund-level analyses of financial performance and social responsibility, our work takes a stock-level approach. Furthermore, Cremers et al. (2023), Kim and Yoon (2022), Li et al. (2023), Gibson Brandon et al. (2022), Pástor et al. (2023), and von Beschwitz et al. (2023) assess the social responsibility of institutional holdings using ESG ratings or scandals reported in the news, whereas we focus on corporate legal risk. Importantly, rather than relying on ratings to evaluate market perceptions of firms' compliance with societal norms, we analyze the revealed preferences of prosocial investors.[6]

Among the aforementioned papers, we share with Pástor et al. (2023) the recognition

[6]Avramov et al. (2022), Berg et al. (2022b), Berg et al. (2022a), and Christensen et al. (2022) show ESG raters may disagree significantly on their assessment of a given firm.

that prosocial investors allocate a portion of their assets based on traditional active investment criteria. However, our approach differs significantly. While Pástor et al. (2023) use the environmental component of MSCI ESG ratings to evaluate the sustainability of individual assets and measure the green tilt in the portfolios of all investors, we focus specifically on investors who self-identify as prosocial. We compare their holdings to a synthetic portfolio of conventional active funds to control for traditional active allocation strategies. Deviations from the synthetic portfolio are then used to assess the portfolio overweight attributable to the funds' prosocial mandate. Our analysis shows that these estimated capital allocations reflect both past and forward-looking information on corporate misconduct.

Our research also relates to studies that examine the relationship between corporate social responsibility and stock performance. These studies evaluate corporate responsibility using past corporate emissions (Ardia et al., 2023; Aswani et al., 2023; Bolton and Kacperczyk, 2021, 2023; Choi et al., 2020; Hsu and Tsou, 2023; Matsumura et al., 2014; Zhang, 2024), current ESG ratings (Bansal et al., 2022; Chava, 2014; Ghoul et al., 2011; Pástor et al., 2022), or current social norms (Hong and Kacperczyk, 2009). In contrast, we adopt a revealed-preference approach, utilizing the portfolio overweight of prosocial investors –measured by their deviations from a synthetic portfolio of active funds–to develop a novel measure of perceived corporate compliance with societal norms. Our findings show that changes in prosocial overweight provide forward-looking insights into future corporate misconduct and stock performance.

Another strand of this literature examines the relationship between prosocial fund ownership and corporate social responsibility, focusing on governance, engagement, or cost of capital. Empirical studies in this area include Azar et al. (2021); Chen et al. (2020); Dikolli et al. (2022); Dyck et al. (2019); Heath et al. (2023); Hoepner et al. (2022); Lowry et al. (2023), while theoretical contributions include Berk and Van Binsbergen (2022); Bisceglia et al. (2023); Broccardo et al. (2022); Edmans et al. (2023); Friedman and Heinle (2016); Green and Roth (2022); Heinkel et al. (2001); Kashyap et al. (2021); Landier and Lovo (2023); Oehmke and Opp (2024). These papers investigate whether institutional ESG ownership causally impacts environmental and social performance. In contrast, our focus is on the predictive power of prosocial funds' portfolio choices for future corporate misconduct and litigation, independent of the funds' direct influence on corporate out-

comes. According to Berk and Van Binsbergen (2022), the amount of socially responsible capital in the market is too small to meaningfully affect firms' cost of capital. Nevertheless, managers may still accurately predict future corporate behavior based on their understanding of firms' underlying practices and risks.

More broadly, our findings contribute to the literature on corporate fraud and misconduct. A strand of this literature explores how external stakeholders, such as employees and analysts (Dyck et al., 2010), and other entities, such as regional media (Heese and Pérez-Cavazos, 2020), can serve as effective monitors of corporate misconduct and promote corporate accountability. In another strand of the literature, Dyck et al. (2024) estimates the prevalence of undetected corporate fraud, while a large body of work examines its economic impact on stakeholders (Choi and Gipper, 2024; Erickson et al., 2004; Karpoff et al., 2008a,b; Kedia and Philippon, 2009; McNichols and Stubben, 2008). Finally, an emerging literature focuses on the relationship between firms' financial incentives and misconduct (Cohn and Wardlaw, 2016; Heese and Pérez-Cavazos, 2020; Raghunandan, 2024) . Our study builds on this body of work by examining the interplay between the portfolio holdings of prosocial institutional investors and corporate misconduct. Using data on firms' legal records, we find that prosocial fund allocations reflect not only publicly available information but also provide forward-looking insights into corporate legal risks.

Finally, we build on and extend existing methodologies to measure prosocial overweight while accounting for conventional active portfolio allocation. Similar to Jiang and Sun (2014) and Jiang et al. (2014), we derive a stock-level measure of institutional investor sentiment by aggregating portfolio deviations from a benchmark and analyzing the performance of stocks overweighted and underweighted by prosocial funds. However, while Jiang and Sun (2014) and Jiang et al. (2014) use passive benchmarks to identify funds' active bets, we compare prosocial funds to a portfolio of conventional active funds to account for active strategies. Our approach is also related to Hunter et al. (2014) and Cohen et al. (2005), who evaluate the relative performance of active funds by comparing them to similar funds. Unlike these studies, which focus on fund-level performance, we analyze stock-level prosocial and financial performance. To construct an optimal portfolio of active funds for comparison with prosocial fund holdings, we generalize the methodology of Cremers and Petajisto (2009), drawing on insights from the synthetic control lit-

erature (Abadie et al., 2010; Abadie and Gardeazabal, 2003). While Cremers and Petajisto (2009) identify a single passive portfolio that best replicates an active fund's holdings, we determine the linear combination of active portfolios that best replicates the holdings of a prosocial fund.

2 Data and Summary Statistics

In this section, we describe the data we use and the set of prosocial funds we consider. We also discuss trends in prosocial investing in recent years and present firm-level summary statistics.

2.1 Data

We obtain data on open-ended U.S. mutual funds from the first quarter of 2011 through the first quarter of 2022. The data on mutual fund characteristics and portfolio holdings are from the Center for Research in Securities Prices (CRSP) Survivor Bias-Free U.S. Mutual Fund database. We focus on actively managed diversified equity funds; that is, funds with CRSP objective codes EDYG (Growth), EDYB (Blend), EDYI (Value), EDCM (Mid-Cap), EDCS (Small-Cap), and EDCI (Micro-Cap). We exclude funds with the CRSP objective code EDCL (S&P 500 Index Objective Funds) to exclude passive funds. We also exclude funds if their names include the words "index," "S&P," or "ETF." Finally, to exclude possible hedge funds, we do not consider funds with the CRSP objective codes EDYH (Long/Short Equity Funds) or EDYS (Dedicated Short Bias Funds). We aggregate all fund data at the portfolio level, rather than share-class level, to avoid multiple counting. We calculate total net assets (TNA) as the sum of assets across all share classes, and we compute the value-weighted average of a fund's return across share classes. For the qualitative attributes of the funds, such as name or investment objective, we choose that of the oldest among all share classes.

To study the holdings of mutual funds, we consider common stocks traded on the NYSE, Amex, and Nasdaq. We exclude closed-end funds, Americus trust component, ETF, and REITs. To mitigate the concern that outliers drive our results, we exclude stocks with prices below $5 and exclude funds with less than 10 securities. We obtain data on stocks' monthly returns, prices, and market values from CRSP. The resulting sample

covers 9,653 stocks and 3,268 funds. We then match stocks in our sample to their quarterly returns from CRSP and quarterly firm fundamentals from Compustat. We also obtain data on factor returns from Kenneth French's website.[7]

We obtain data on firm misconduct from Good Job First's Violation Tracker dataset. Violation Tracker contains comprehensive data on penalties exceeding $5,000 assessed by federal and local agencies on corporations. Examples include the Environmental Protection Agency, the Occupational Safety and Health Administration, and the Justice Department. Violation Tracker classifies misconduct episodes into nine groups based on the nature of the violation: competition, consumer protection, employment, environment, financial, government contracting, healthcare, safety, and miscellaneous. We attribute the fine to the parent company when a subsidiary is fined. From 2011 to 2022, we have data on 357,897 penalties, summing up to $742 billion, assessed by 394 agencies. Among these violations, 39,748 are attributed to 1,856 public companies that paid a total of $516 billion in penalties.

Data on lawsuits are from Lequity, a start-up ESG rating firm. Unlike other ESG rating firms, Lequity assigns ESG ratings based on the number and materiality of civil lawsuits filed against companies. From Lequity, we obtained data on lawsuits filed against public companies in State and Federal courts. Compared to the Federal Judicial Center's (FJC) data used in other studies in finance and economics (Dougal et al., 2022; Franke et al., 2023; Cassella and Rizzo, 2023; Ash et al., 2022; Lanjouw and Schankerman, 2001), Lequity's data possess two important advantages. First, they include lawsuits filed in state[8] and federal courts, whereas FJC data contain only federal lawsuits. Second, Lequity obtains data from court dockets and identifies all defendants in a lawsuit, whereas only the first defendant can be identified in FJC data.[9] Lequity classifies lawsuits into 49 categories depending on the nature of the dispute. These categories include patents, contracts, worker safety, environmental matters, discrimination, land use disputes, etc. From 2011 to 2022, we have data on 205,287 civil lawsuits filed against 3,025 public companies.

[7] https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html.

[8] Lequity's state court geographic coverage includes more than 90 million US residents; that is, 27% of the US population.

[9] For example, if plaintiff X filed a complaint against company A, company B, and company C, FJC would report the defendants as "Company A et al." Using Lequity data, we can correctly identify the three defendants.

We classify regulatory violations and civil lawsuits as environmental (E), social (S), governance-related (G), or other. We then restrict our attention to E, S, and G violations and lawsuits Starting from the more granular classification of violations and lawsuits provided by Violation Tracker and Lequity, we group them into the three E, S, and G categories based on their nature. We provide details of our classification in Table A.1.

We also obtain ESG ratings from KLD, MSCI, Refinitiv, Sustainalytics, and TVL. For KLD data, we follow the methodology of Avramov et al. (2022), Berg et al. (2023), and Lins et al. (2017) and sum all the strengths and subtract the concerns. As for the other ratings, we use the MSCI ESG Intangible Value Assessment (UVA) from MSCI, the ESG Combined Score from Refinitiv, the Sustainalytics Rank from Sustainalytics, and the Insight Score from TruValue Labs (TVL). Similar to Avramov et al. (2022), we transform scores into percentile ranks to ensure all scores are on the same scale and distributed according to the same distribution. Specifically, for each score in each quarter, we rank firms on a scale from 0 to 100, where a higher rank corresponds to a better ESG score. After this transformation, all quarterly ESG scores are uniformly distributed over the [0,100] interval.

Finally, we obtain data on ESG-related news from TVL. Like Serafeim and Yoon (2023), we use the TVL Materiality Pulse, which tracks firm-level ESG-related information at the daily frequency from over 100,000 news sources. Using a natural language processing algorithm, TVL assigns sentiment-based scores to news based on their nature and severity. Therefore, quarterly changes in the TVL Materiality Pulse represents the sentiment of news articles that were written during the quarter.

2.2 Trends in Socially Responsible Investing

Within our sample of US equity active funds, we classify funds as prosocial if they are classified as sustainable by Morningstar or if their name contains any of the following strings: sustain, social, esg, pax, green, responsi, clean, impact, water, environm, catholic, parnassus, aquina, women, alternative energy, equality, wind energy, fossil, low carbon, amana, ecolog, eco, epiphany, solar, climate, better world, gender, just, sri, community, and diversity.

We identify a total of 241 active prosocial funds between the first quarter of 2011 and the first quarter of 2022. Both the number and AUM of prosocial funds grew steadily over

this decade, as shown in Figures 2(a) and 2(b). The number of funds available to investors increased from 122 to 171, while their AUM grew from $104 billion to $352 billion. Figure 2(c) shows the time series of prosocial fund's market share in terms of AUM relative to the total assets managed by US equity active funds. Prosocial funds' market share was 8% at the end of 2021.

[Insert Figure 2 here]

Despite the growth in the number and AUM of prosocial funds, the number of portfolio companies held by prosocial funds barely changed over our sample period. Figure 2(d) shows that, between 2011 and 2021, the number of companies held by at least one prosocial fund fluctuated between 3,076 and 3,412. This observation indicates that, although the size of the responsible investment industry increased, their investment opportunities remained relatively stable.

2.3 Firm-Level Summary Statistics

[Insert Table 1 here]

In our stock-level empirical tests, we use several firm-level, time-varying characteristics, namely total assets, market cap, book-to-market ratio, return on assets (ROA), leverage (defined as long-term debt over total assets), quarterly capital expenditures (CAPEX), institutional ownership, the stock's returns over the previous 12 months, the stock's beta, total return volatility, and the prosocial breadth of the stock (defined as the ratio of the number of prosocial funds holding stock i to the total number of prosocial funds active at date t.) Table 1 shows summary statistics. A comprehensive list of the firm-level variables used in this paper and their descriptions is available in the Appendix in Table A.1.

3 Fund Flows and Portfolio Allocation

We start by documenting that prosocial investors are sensitive to the legal-risk exposure of the companies they invest in. Specifically, we find an inverse relation between legal events, defined as violations and lawsuits, among a fund's portfolio companies and

subsequent flows. As shown below, the relation between negative legal events and subsequent flows is one order of magnitude larger for prosocial funds than conventional (non-prosocial) active funds. We also show that prosocial funds trade differently compared to conventional funds in anticipation of future legal events, reducing holdings of companies that will experience fines or lawsuits in the following quarter.

3.1 The Relation Between Fund Flows and Exposure to Legal Risk

For each fund f and quarter t, let TNA_{ft} denote the fund's total net assets at the end of quarter t and let R_{ft} be the fund's net return in quarter t. We thus define fund flows as $\textit{Fund Flows}_{ft} \coloneqq (TNA_{ft} - TNA_{ft-1}(1 + R_{ft}))/TNA_{ft-1}$, which measures the net inflow of money into the fund during quarter t as a fraction of the fund's total net assets at the end of quarter $t - 1$.

We aggregate firm-level legal events at the fund level. Let variable $\textit{Legal Event}_{i,t-4\to t-1}$ be an indicator taking the value of one if firm i was exposed to at least one legal event in the year (four quarters) up to and including quarter $t - 1$. We consider both regulatory penalties and civil lawsuits filed against the company as legal events. We then aggregate legal events at the fund's level by using a weighted average of individual firm's legal events with weights equal to the portfolio weights of the fund. Specifically, let w_i^{ft} be the share of fund f's AUM invested in stock i at the end of quarter t. We thus define a fund's exposure to past legal events as

$$\textit{Legal Exposure}_{f,t-4\to t-1} \coloneqq \sum_{i=1}^{I} w_i^{ft} \textit{Legal Event}_{i,t-4\to t-1}$$

where I is the total number of stocks in the sample.

We first verify that prosocial funds have lower exposure to legal risk through their portfolio companies than comparable conventional funds by running the following regression:

$$\textit{Legal Exposure}_{f,t-3\to t} = \eta \textit{Prosocial Fund}_f + \textit{Style-Time FE}_{ft} + \epsilon_{ft}. \tag{1}$$

If $\eta < 0$, then prosocial funds have lower exposure to legal risk in their portfolio than con-

ventional funds, consistent with prosocial funds' flows being more sensitive to negative legal events.

[Insert Figure 1 here]

We plot the estimate and 95% confidence interval for the coefficient η in Figure 1. We separately consider regulatory violations and civil litigation. We also consider subsamples of environmental, social, or governance-related legal events. Consistently across all specifications, we find negative and statistically significant estimates for the coefficient η, thus confirming that prosocial funds have lower exposure to legal risk compared to conventional funds.

Next, we document that prosocial funds face a particularly strong relation between money flows and their exposure to legal risk, thus motivating them to select portfolio companies with low risk of future fines and lawsuits. We run the following regression for the entire sample of US equity active funds:

$$\begin{aligned} \textit{Fund Flows}_{ft} =& \psi_0 \textit{Prosocial Fund}_f \\ &+ \psi_1 \textit{Legal Exposure}_{f,t-4\to t-1} + \psi_2 \textit{Prosocial Fund}_f \times \textit{Legal Exposure}_{f,t-4\to t-1} \\ &+ \psi_3 \textit{Fund Return}_{f,t-1} + \psi_4 \textit{Prosocial Fund}_f \times \textit{Fund Return}_{f,t-1} \\ &+ \beta' Z_{ft} + FE_{ft} + \epsilon_{ft}, \end{aligned}$$

where *Prosocial Fund*$_f$ is an indicator variable taking the value of 1 if fund f is an prosocial fund, *Fund Return*$_{f,t-1}$ is the fund's net return in quarter $t-1$, and where Z_{ft} is a vector of controls that include fund size, expense ratio, and turnover. In some specifications, we also include the average ESG ratings of each fund's holdings and the fund's past flows. The fixed effects, FE_{ft}, are either time or style-time fixed effects.

If $\psi_1 < 0$, active funds experience larger outflows when exposed to more legal events through their portfolio companies. Although ψ_1 measures the relation between legal events and flows among conventional active funds, we might still find a negative coefficient because such events often have pecuniary consequences.

If $\psi_2 < 0$, prosocial funds experience additional outflows compared to other active funds when exposed to negative legal events. Therefore, a negative ψ_2 coefficient suggests

that prosocial investors are more sensitive to negative legal events than performance-seeking investors, consistent with the notion that prosocial investors pay closer attention to events that signal the potential for corporate misconduct.

[Insert Table 5 here]

Table 5 shows the results. Among active funds, a one-standard deviation increase in exposure to legal events in a fund's portfolio is associated with a 0.593% decline in net flows when controlling for style-time fixed effects. This result, indicating a negative ψ_1 coefficient, is consistent with legal events bearing some pecuniary consequences.

More importantly, for our research questions, we observe that the relation between net flows and exposure to negative legal events is an order of magnitude larger for prosocial funds than regular active funds. When controlling for style-time fixed effects, flows to prosocial funds decline by an additional 3.350% for a one-standard deviation increase in exposure to legal events.

In columns 3 and 4 of Table 5, we control for the ESG ratings on funds' portfolio companies and past fund flows. The results are robust to the inclusion of these controls. After controlling for ESG ratings, the incremental relation between fund flows and legal exposure in prosocial funds remains virtually unchanged. When controlling for past flows, the estimated coefficient is smaller but remains statistically significant.

We also observe that, in every specification, the coefficient ψ_4 is small relative to ψ_3 and not statistically significant, indicating that the flow-performance relationship in prosocial funds does not differ from that of conventional active funds. Therefore, compared to conventional investors, prosocial investors exhibit greater sensitivity to legal risk but similar sensitivity to performance. Consequently, when evaluating the optimal trade-off between legal exposure and performance, prosocial funds have an incentive, at the margin, to reduce legal risk, even if it results in a decrease in performance.

Because fund investors are more likely to observe the top-10 holdings of funds reported frequently on funds' websites and Morningstar, in the Internet Appendix, we provide alternative tests in which we use legal events among the top-10 holdings of the fund instead of all fund holdings. Table I.2 in the Internet Appendix shows results are robust to this alternative specification. The estimated magnitude of the relation between legal

events and flows is larger when using top-10 holdings than the entire portfolio. This finding is consistent with Agarwal et al. (2022), who document that funds' top-10 holdings are salient for investors' capital allocation decisions.

Overall, these results suggest that prosocial funds should be particularly concerned with the risk of corporate misconduct among their portfolio companies. After controlling style-time fixed effects across various regression specifications, flows to prosocial funds are 4.8 to 7.6 times more sensitive to adverse legal events than flows to conventional active funds. Whereas both prosocial and conventional investors may have an incentive to avoid legal risk because of its associated pecuniary component, prosocial investors appear more sensitive to legal risk, consistent with regulatory violations and civil lawsuits reflecting episodes in which portfolio companies allegedly caused damages to stakeholders.

3.2 Funds' Portfolio Allocation and Legal Risk

We then provide direct evidence prosocial funds and conventional funds trade differently in response to firms' legal risk. Specifically, we want to show that the correlation between changes in holdings and future legal risk is positive for prosocial funds but not for conventional active funds while controlling for a host of stock-level and fund-level variables and fixed effects.

To do so, for each fund f in quarter t we consider the change in the holdings of stock i relative to the previous quarter. To control changes in holdings driven by style-specific strategies and changes in market capitalization, we consider funds' changes in holdings relative to their passive benchmark $b(f)$. To select each fund's benchmark, we compute the active share (Cremers and Petajisto, 2009) of fund f relative to each Vanguard index fund available at time t. We select the Vanguard fund yielding the lowest active share as the benchmark of fund f. Similar to Berk and van Binsbergen (2015), we use Vanguard index funds to ensure that the passive benchmark is tradable and marketed at the time. We choose Vanguard because of their market leadership in index investing.

We then run the following regression:

$$\Delta(w_i^{ft} - w_i^{b(f)t}) = \omega_1 \textit{Legal Event}_{i,t+1\to t+4} + \omega_2 \textit{Prosocial Fund}_f \times \textit{Legal Event}_{i,t+1\to t+4} + \beta' X_{it} + FE_{ift} + \epsilon_{ift}.$$

The vector X_{it} contains the same firm-level characteristics for firm i at year-quarter t used in regression (6), and include total assets, book-to-market, ROA, leverage, CAPEX, institutional ownership, annual return, CAPM beta, return volatility, and prosocial breadth. These firm-level variables are defined in Table A.1 in the appendix. As fixed effects, FE_{it}, we include either fund, time, and stock fixed effects, or stock and fund-time fixed effects, or fund-time and stock-time fixed effects. We double-cluster standard errors at the fund and firm level.

We use $\textit{Legal Event}_{i,t+1\to t+4}$ as an independent variable and we interact with indicators for prosocial funds, rather than using it as a dependent variable. By doing so, we can show that, even after controlling for stock-time and fund-time fixed effects, changes in the portfolio allocation of prosocial funds correlate with the company's future legal risk.

[Insert Table 6 here]

Table 6 reports the results. Compared to conventional funds, prosocial funds appear to adjust their benchmark-adjusted portfolio allocation in the opposite direction of future legal events. The results are robust to controlling for stock-time fixed effects. Hence, these findings suggest that, even after controlling for all time-varying characteristics that may make a stock more or less appealing to active funds, prosocial funds trade differently from conventional funds, reducing exposure to stocks that will experience negative legal events in the future.

3.3 Prosocial Funds vs Sector Funds

As noted by Starks (2023), both pecuniary and non-pecuniary considerations influence prosocial investing. In particular, prosocial funds may prioritize avoiding legal risk more than conventional funds as part of their risk-management approach.

We focus on diversified active prosocial funds, but these funds may still be less diversified than conventional ones due to excluding or underweighting certain sectors. If prosocial investors are underdiversified, they may seek to avoid legal risk as a way to manage exposure to idiosyncratic risk, which conventional funds mitigate through diversification.

To rule out this risk-management hypothesis, we perform the same tests of this subsection using sector funds. By design, sector funds are highly underdiversified, as they

invest in companies from a single sector. Figure I.1 in the Internet Appendix shows that legal risk clusters in different sectors at various points in time. For example, the automobile and steel works sectors appear to be generally overexposed to legal risk during our sample period, with peak exposures in 2017, 2018, and 2019 for automobiles and 2021 for steel works. The consumer durables and textiles sectors appear to be generally underexposed. The mining and minerals sector was particularly exposed in 2011 and 2012, whereas the fabricated products sector was particularly exposed at the end of our sample period.

Therefore, if legal risk is a key concern for risk management, sector-fund investors should exhibit similar concerns as prosocial-fund investors, leading to a comparable negative relationship between fund flows and legal exposure in sector funds. Furthermore, sector funds' trades should also show a negative correlation with legal events, similar to prosocial funds' trades.

In Tables I.3 and I.4 of the Internet Appendix, we repeat the tests from Tables 5 and 6, this time using sector funds instead of prosocial funds. Contrary to the risk-management hypothesis, we find no negative relationship between flows and legal exposure, nor any correlation between legal events and fund trades in sector funds. These null results suggest that prosocial investors' aversion to legal risk is not simply a reflection of the risk-management strategies of underdiversified investors, but rather it points to asset-allocation preferences specific to prosocial investors.

4 Theoretical Framework and Methodology

In this section, we develop a theoretical framework to study the portfolio-allocation implications of the different incentives faced by prosocial and conventional investors to avoid exposure to legal risk. The framework indicates that comparing portfolio allocations can reveal forward-looking information about the future legal risk and risk-adjusted performance of portfolio companies. We then introduce our methodology to empirically measure prosocial funds' overweight on individual stocks.

4.1 THEORETICAL FRAMEWORK

There are I stocks indexed by $i = 1, \ldots, I$. At time t, stocks are affected by legal risk $L_t \in \mathbb{R}^N$, where $L_t = -V_t + \varepsilon_t^L$. The quantity V_t is an $I \times 1$ vector of firms' corporate values at time t, which captures firms' propensity to engage in misconduct. The series $(\varepsilon_t^L)_{t=1}^{\infty}$ is a series of independent and identically distributed (i.i.d.) shocks with $\mathrm{E}[\varepsilon_t^L] = 0$ and $\mathrm{E}[\varepsilon_t^L \varepsilon_t^{L\prime}] = \Omega$ for all t, independent of $(V_t)_{t=1}^{\infty}$. Therefore, we assume that firms with better corporate values are less exposed to adverse legal events, such as regulatory violations or lawsuits.

Legal risk carries pecuniary consequences that reduce stock returns by ρL_t, with $\rho \in \mathbb{R}$ and $\rho \geq 0$. Stocks are also exposed to returns that are uncorrelated with legal risk, $\tilde{R} = \tilde{\mu}_t + \tilde{e}_t$. The quantity $\tilde{\mu}_t$ is a vector of expected (non-legal) returns, independent of $(V_t)_{t=1}^{\infty}$ and $(\varepsilon_t^L)_{t=1}^{\infty}$. The series $(\tilde{\varepsilon}_t)_{t=1}^{\infty}$ is i.i.d. with $\mathrm{E}[\tilde{\varepsilon}_t] = 0$ and $\mathrm{E}[\tilde{\varepsilon}_t \tilde{\varepsilon}_t{}'] = \tilde{\Sigma}$ for all t, independent of $(\varepsilon_t^L)_{t=1}^{\infty}$, $(V_t)_{t=1}^{\infty}$, and $(\tilde{\mu}_t)_{t=1}^{\infty}$. Therefore, total stock returns are $R_t \coloneqq \tilde{R}_t + \rho L_t = \mu_t + \varepsilon_t$, where $\mu_t \coloneqq \tilde{\mu}_t - \rho V_t$, $\mathrm{E}[\varepsilon_t] = 0$, and $\mathrm{E}[\varepsilon_t \varepsilon_t{}'] = \Sigma \coloneqq \tilde{\Sigma} + \rho\Omega$.

Let $\mathcal{F}_t^*$ be the σ-algebra representing the information of active investors at time t and let $\mathcal{F}_t$ be the σ-algebra representing public information at time t. The information sets of active investors and the public reflect the available information they can use to anticipate returns and legal events. We assume that active investors are strictly more informed than the public; that is, $\mathcal{F}_t \subset \mathcal{F}_t^*$. We also assume that active investors' private information is eventually revealed to the public but with a delay. Formally, $\mathcal{F}_{t+1} = \mathcal{F}_t^*$. That is, active investors *anticipate* future information.

Firms' corporate values V_t and expected returns μ_t are unobservable, and active investors form beliefs about them so that $\mathrm{E}[V_{t+1}|\mathcal{F}_{t-1}^*] = \mathrm{E}[V_t|\mathcal{F}_{t-1}^*]$ and $\mathrm{E}[\mu_{t+1}|\mathcal{F}_{t-1}^*] = \mathrm{E}[\mu_t|\mathcal{F}_{t-1}^*]$. That is, beliefs about corporate values and fundamentals are martingales, and a revision in beliefs implies a persistent change in expected returns and legal risk. In particular, $\mathrm{E}[L_{t+s}|\mathcal{F}_t^*] = \mathrm{E}[V_{t+1}|\mathcal{F}_t^*]$ for all $s = 1, \ldots, \infty$.

We model the preferences of a representative prosocial investor similar to Pástor et al. (2021). Specifically, we consider a mean-variance investor with a mandate to tilt its portfolio towards firms with better corporate values. That is, the representative prosocial

investor chooses portfolio weights w to maximize the following objective function:

$$w'(p\mathrm{E}[R_{t+1} - r\mathbf{1}|\mathcal{F}_t^*] + (1-p)\mathrm{E}[V_{t+1}|\mathcal{F}_t^*]) - \frac{1}{2\tau}w'\Sigma w,$$

where, τ represents the investor's relative risk aversion,[10] and p quantifies the pro-social preferences of the investor.

As a result, the optimal portfolio of the prosocial investor is

$$w^t(p) = \tau\Sigma^{-1}(p\mathrm{E}[R_{t+1} - r\mathbf{1}|\mathcal{F}_t^*] + (1-p)\mathrm{E}[V_{t+1}|\mathcal{F}_t^*]),$$

whereas the optimal portfolio of a conventional investor is

$$w^t(0) = \tau\Sigma^{-1}\mathrm{E}[R_{t+1} - r\mathbf{1}|\mathcal{F}_t^*].$$

We define the vector of *prosocial overweight* as the deviation of the representative prosocial investor from its conventional counterpart. That is,

$$\textit{Prosocial Overweight}_t \coloneqq w^t(p) - w^t(0) = \tau\Sigma^{-1}p(\mathrm{E}[V_{t+1}|\mathcal{F}_t^*] - \mathrm{E}[R_{t+1}|\mathcal{F}_t^*]). \tag{2}$$

According to this equation, prosocial overweight reflects investors' information about a firm's corporate values $\mathrm{E}[V_{t+1}|\mathcal{F}_t^*]$ and expected returns.[11] We thus obtain a first prediction.

PREDICTION 1. *In the cross-section, the level of prosocial overweight is positively correlated with available measures of legal compliance and prosocial conduct.*

Unlike an otherwise identical conventional investor, a prosocial investor will intentionally overweight firms with better corporate values. We empirically document a rela-

[10] Equivalently, $1/(2\tau)$ can be interpreted as the Lagrange multiplier on a tracking error constraint for a risk-neutral investor.

[11] In this framework, we compared the holdings of a prosocial investor to those of a conventional investor that most closely resembles the prosocial investor. In the context of our model, we therefore consider prosocial and active investors with the same information $\mathcal{F}_t^*$. However, one can generalize the framework and allow the prosocial and conventional investors to possess specialized information $\mathcal{F}_t^e$ and $\mathcal{F}_t^a$, respectively. Under this assumption, the key equation of this theoretical framework, equations (2) and (4), would change and include a mean-zero noise term which reflects measurement error made by the least informed investor when estimating stocks' alphas compared to the estimates of the most informed investor.

tion between the level of prosocial overweight and current information about legal compliance and prosocial conduct in section 5.

We then consider the change in prosocial overweight:

$$\Delta \textit{Prosocial Overweight}_t \coloneqq \textit{Prosocial Overweight}_t - \textit{Prosocial Overweight}_{t-1} \tag{3}$$

We then make two observations. First, by the law of iterated expectations and the martingale property of beliefs, we have $\mathrm{E}[L_{t+s}|\mathcal{F}_t^*] = \mathrm{E}[V_{t+s}|\mathcal{F}_t^*] = \mathrm{E}[V_{t+1}|\mathcal{F}_t^*]$ for all $s = 1, \ldots, \infty$. Moreover, because $\mathcal{F}_{t-1}^* = \mathcal{F}_t$, we also have $\mathrm{E}[V_t|\mathcal{F}_{t-1}^*] = \mathrm{E}[V_t|\mathcal{F}_t]$. Second, we define the alpha of stock i as the excess return that an active investor expects to earn over the excess return expected by uninformed investors.[12] That is,

$$\mathrm{E}[\alpha_{t+1}|\mathcal{F}_t^*] \coloneqq \mathrm{E}[R_{i,t+1} - r|\mathcal{F}_t^*] - \mathrm{E}[R_{t+1} - r\mathbf{1}|\mathcal{F}_t]$$

We thus observe that, because $\mathcal{F}_{t+1} = \mathcal{F}_t^*$ and $\mathrm{E}[\mu_{t+1}|\mathcal{F}_{t-1}^*] = \mathrm{E}[\mu_t|\mathcal{F}_{t-1}^*]$, then $\mathrm{E}[\mu_t|\mathcal{F}_{t-1}^*] = \mathrm{E}[\mu_{t+1}|\mathcal{F}_t]$, and, hence, $\mathrm{E}[R_{i,t+1} - r|\mathcal{F}_t^*] - \mathrm{E}[R_{t+1} - r\mathbf{1}|\mathcal{F}_{t-1}^*] = \mathrm{E}[\alpha_{t+1}|\mathcal{F}_t^*]$.

Therefore, starting from (3), one can write

$$\mathrm{E}[L_{t+s}|\mathcal{F}_t^*] + \mathrm{E}[\alpha_{t+1}|\mathcal{F}_t^*] = -\frac{1}{\tau p}\Sigma \Delta \textit{Prosocial Overweight}_t + \mathrm{E}[V_t|\mathcal{F}_t], \quad s = 1, \ldots, \infty. \tag{4}$$

We use equation (4) to provide an economic interpretation of the change in prosocial overweight we derived in section 4.2. Specifically, we derive the following prediction.

PREDICTION 2. *In the cross-section of stocks, a change in prosocial overweight for a certain stock, ΔProsocial Overweight$_{i,t}$, should predict lower alpha in the next period, $\mathrm{E}[\alpha_{i,t+1}|\mathcal{F}_t^*]$, and/or less legal risk going forward, $\mathrm{E}[L_{i,t+s}|\mathcal{F}_t^*]$.*

[12] One could equivalently define the alpha of a stock as

$$\mathrm{E}[\alpha_{i,t+1}|\mathcal{F}_t^*] \coloneqq \mathrm{E}[R_{i,t+1} - r|\mathcal{F}_t^*] - \frac{\mathrm{Cov}(R_{i,t+1}, w^{Tt\prime}R_{t+1})}{w^{Tt\prime}\Sigma w^{Tt}}(\mathrm{E}[w^{Tt\prime}R_{t+1}|\mathcal{F}_t] - r),$$

where w^{Tt} is the tangency portfolio based on public information $\mathcal{F}_t$. The definitions are equivalent because, for each stock i,

$$\mathrm{E}[R_{i,t+1} - r|\mathcal{F}_t] = \frac{\mathrm{Cov}(R_{i,t+1}, w^{Tt\prime}R_{t+1})}{w^{Tt\prime}\Sigma w^{Tt}}(\mathrm{E}[w^{Tt\prime}R_{t+1}|\mathcal{F}_t] - r).$$

In other words, changes in prosocial overweight reflect changes in the information of active investors as well as the different usage of that information by prosocial and conventional investors. If prosocial investors increase the holding of a stock compared to conventional investors, then the perceived corporate values must have increased compared to the expected returns of the stock. In our empirical tests in sections 6.1 and 6.2, we show that changes in prosocial overweight predict *both* lower alpha and less legal risk.

From (4), we obtain also the following prediction.

PREDICTION 3. *In the cross-section of stocks, the slope of the relation between changes in prosocial overweight and future legal risk and/or alpha is steeper for more volatile stocks.*

Intuitively, a risk-averse investor is more reluctant to take a position in riskier stocks unless motivated by high expected alpha and/or high corporate values. Both prosocial and conventional investors "shrink" their positions toward zero for stocks with higher volatility. Therefore, a given increase in prosocial overweight is associated with a larger wedge between corporate values and returns for stocks with higher risk. In section 7.1, we show that, although the relation between prosocial overweight and future legal risk remains stable across stocks with different volatility, the relation between prosocial overweight and future alpha is steeper for more volatile stocks. As discussed in section 7.1 ahead, this finding is consistent with more volatile stocks being more difficult to assess. This finding also indicates that investors sacrifice more performance to incorporate volatile and uncertain stocks into their prosocial investment strategy.

4.2 METHODOLOGY

Ideally, to empirically measure prosocial overweight, we would need to compare the holding of a prosocial funds to the holdings of a counterfactual funds which is identical to the prosocial funds in terms of information, benchmark, investment-opportunity set, and tracking-error constraints, but differs from the prosocial fund only on its preference for non-pecuniary values.[13]

[13] An active prosocial fund may invest in a stock for three reasons. First, it may hold or avoid a stock to follow a benchmark and reduce deviations from comparable funds. Second, the fund may overweight (underweight) the stock compared to the benchmark as part of a conventional active-allocation strategy. For example, the fund may employ standard security-valuation methodologies and overweight (underweight)

Because no such counterfactual fund is directly available in the data, we draw from the literature on synthetic controls (Abadie et al., 2010; Abadie and Gardeazabal, 2003) and portfolio evaluation (Cohen et al., 2005; Cremers and Petajisto, 2009; Hunter et al., 2014; Jiang and Sun, 2014) and, for each prosocial fund in the sample, we construct a synthetic fund to use as comparison. Specifically, for each prosocial fund, we use a data-driven methodology to find the linear combination of conventional active funds that best resembles the prosocial fund itself. To control for passive benchmarks, we use conventional funds with the same investment style of the prosocial fund.[14] We then use deviations of each prosocial fund's portfolio from its corresponding synthetic fund's portfolio and average them at the stock level to measure prosocial overweight.[15]

Let $\{1, \ldots, F\}$ be the set of all funds in the sample, and let $\{1, \ldots, I\}$ be the set of securities. Consider a fund f in quarter t. Let $w^{ft} \coloneqq (w_1^{ft}, \ldots, w_I^{ft})$ be the fund's portfolio, where w_i^{ft} is the share of fund f's assets under management (AUM) invested in stock i at the end of quarter t. Let $S(f,t)$ be the fund's style. We define $\mathrm{E}(t)$ as the set of active prosocial funds at time t. From this set, we exclude funds that, up to quarter t, have never reached a size of \$5 million in AUM. By doing so and by restricting the sample to funds open to new investors, we reduce incubation bias (Elton et al., 2001; Evans, 2010). We also define $A(s,t)$ as the subset of conventional active funds with investment style s at time t. To reduce incubation bias in the sample, we exclude active funds with AUM below \$5 million or fund age below two years.[16]

For each prosocial fund $e \in E(t)$ and for each quarter t, we construct a synthetic

securities it deems as underpriced (overpriced.) Third, the fund may further adjust its position in the company to reflect the manager's evaluation of the corporate values of the firm. In particular, compared to a conventional but otherwise identical fund manager, a prosocial investor may overweight (underweight) firms that display superior (inferior) corporate values, such as firms' contributions to stakeholder welfare.

[14] We use CRSP objective codes to identify a fund's style.

[15] As a robustness, we conduct the main tests of our paper using an alternative measure of prosocial overweight, which is simpler, but less theoretically sound. To construct this alternative measure, we use deviations of each prosocial fund's portfolio from the average holdings of conventional funds with the same style. We then average these deviations at the stock level. Our results are robust to this alternative measure and we report them in the Internet Appendix.

[16] We do not restrict fund age for prosocial funds because, as shown in Figure 2(a), prosocial funds tend to be relatively new. By filtering by age, we would omit a sizable fraction of our sample of prosocial funds. However, our results are not driven by incubation bias in prosocial funds. Whereas incubation bias introduces a semblance of outperformance, we find prosocial funds overweight stocks that underperform compared to the holdings of conventional active funds.

portfolio of conventional active funds with the same style as e. This portfolio replicates the holdings of e as closely as possible. Formally, we estimate portfolio weights $\hat{\Theta}^{et} \coloneqq \left(\hat{\theta}_1^{et}, \cdots, \hat{\theta}_F^{et}\right)$ by solving the following problem:

$$\left(\hat{\theta}_1^{et}, \cdots, \hat{\theta}_F^{et}\right) = \arg \min_{(\theta_1, \cdots, \theta_F) \in \mathbb{R}^F} \sum_{i=1}^{I} \left| w_i^{et} - \sum_{a=1}^{F} \theta_a w_i^{at} \right| \tag{5}$$

$$\text{s.t.} \quad \theta_a = 0 \text{ for all } a \notin A(S(e,t),t) \tag{5a}$$

$$\sum_{a=1}^{F} \theta_a = 1 \text{ for all } a. \tag{5b}$$

Our methodology to select the control portfolio is, therefore, entirely data-driven. In (5), we seek a linear combination of fund portfolios with minimal distance from the portfolio of prosocial fund e in quarter t. With condition (5a), we restrict the set of fund portfolios to conventional active funds with the same style as prosocial fund e. Condition (5b) imposes that portfolio weights sum up to one. We thus obtain a synthetic portfolio

$$\hat{w}^{et} \coloneqq \sum_{a=1}^{F} \hat{\theta}_a^{et} w^{at}$$

of conventional active funds with the same investment objective of fund e in quarter t.

Our methodology is a generalization of the active share in Cremers and Petajisto (2009). Cremers and Petajisto (2009) look for the single passive portfolio that best replicates a fund's holdings. By comparing the fund's holdings with the holdings of its passive benchmark, they estimate the active bets of the fund. We generalize the active share by looking for the linear combination of portfolios that best replicates the fund's holdings.

The synthetic portfolio we obtain has desirable features. First, by using holdings of funds with the same style, we control for the portfolio allocation of fund e that is determined by its benchmark, similar to the active share. Second, by estimating the linear combination of active funds that best replicates the prosocial fund's portfolio, we also control for the fund's incentives to deviate from its benchmark because of conventional active allocation strategies. Hence, our synthetic portfolio of active funds represents the best outside option for an investor who wants a portfolio exposure similar to fund e's but

has no prosocial mandate.

For each stock i and quarter t, we define *Prosocial Overweight*, and denote it as *Prosocial Overweight*$_{it}$, as the average deviation of prosocial funds on stock i in quarter t from their synthetic benchmark. To calculate the average, we restrict the sample to funds whose investment style allows for stock i. That is,

$$\textit{Prosocial Overweight}_{it} \coloneqq \frac{1}{N_{i,t}} \sum_{e \in U(i,t)} (w_i^{et} - \hat{w}_i^{et}),$$

where $N_{i,t}$ is the number of prosocial funds whose investment style in quarter t includes stock i.[17] By restricting ourselves to said funds, we ensure our overweight measure is not biased by style considerations.[18] To reduce the influence of outliers, we winsorize the left and right-tail of the overweight distribution at the 1% level.

Finally, we define changes in prosocial overweight as follows

$$\Delta\textit{Prosocial Overweight}_{it} \coloneqq \textit{Prosocial Overweight}_{it} - \textit{Prosocial Overweight}_{it-1}.$$

Whereas the level of prosocial overweight, *Prosocial Overweight*$_{it}$, reflects the information accumulated by funds up to time t, changes in prosocial overweight capture new information about the corporate values of firm i.

[Insert Table 2 here]

Table 2 presents summary statistics for the levels and quarterly changes of prosocial overweight in our panel of 96,987 firm-month observations. Overall, both variables exhibit a symmetric distribution centered at zero. The standard deviation of prosocial overweight is 2.75 bps. Figure I.2 in the Internet Appendix plots the distribution of the level of overweight and the changes in overweight.

[17] Formally, we define $N_{i,t} \coloneqq |U(i,t)|$, where $U(i,t) = \{e \colon \exists f \in \{1,\ldots,F\} \text{ s.t. } S(f,t) = S(e,t) \text{ and } w_i^{ft} > 0\}$ as the set of prosocial funds whose investment style allows for security i. In other words, $e \in U(i,t)$ if, in quarter t, a fund f exists with the same style of e and has positive holdings in stock i. Note we could have $f = e$.

[18] For example, if i is a large-cap stock, all small-cap funds will not include stock i in their portfolio. Using our methodology, we would conclude that all small-cap prosocial funds make bets equal to zero on the large-cap stock i. However, one cannot interpret these zero bets as indicating a lack of overweight on the stock by small-cap prosocial funds. Instead, these zero bets reflect the specialization of these funds.

5 VALIDATION

In this section, we study the relationship between the level of prosocial overweight and firm characteristics, including firm fundamentals and past stock performance. Moreover, we validate our measure of prosocial overweight by showing it correlates positively with ESG ratings and firms' past exposure to regulatory fines and civil lawsuits.

5.1 FIRM-LEVEL CHARACTERISTICS

We start by studying the relationship between prosocial overweight, firm fundamentals, and past stock performance in a multivariate setting. To evaluate how prosocial overweight varies with firm-level characteristics, we run the following panel regression:

$$\textit{Prosocial Overweight}_{it} = \beta' X_{it} + FE_{it} + \epsilon_{it}, \tag{6}$$

where the dependent variable, $\textit{Prosocial Overweight}_{it}$, is measured as defined in section 4.2 and X_{it} is a vector of fundamental and stock-market variables for firm i at year-quarter t. These variables, defined in Table A.1, include total assets, book-to-market, ROA, leverage, CAPEX, institutional ownership, past annual return, past CAPM beta, past return volatility, and prosocial breadth. As fixed effects, FE_{it}, we use either time fixed effects (year-quarter) or time-industry fixed effects, for which we use the Fama-French 48-industry classification. By using time fixed effects, we control for aggregate time-series variation in prosocial overweight and firm characteristics. By including industry-time fixed effects, we control for comovements between prosocial overweight and firm-level characteristics across industries at any time. We cluster standard errors at the firm level.

[Insert Table 3 here]

We report results in Table 3. In column 1, we do not include fixed effects. In column 2, we include time fixed effects. In column 3, we use industry-time fixed effects. According to the estimates, firms with a higher prosocial overweight tend to be smaller in size, less profitable in terms of ROA, and more leveraged. They also possess higher book-to-market ratios. Focusing on their past stock-market performance, firms with higher prosocial overweight provided lower returns, carried higher market risk as measured by

their CAPM beta, and, as one should expect, were more broadly held by prosocial funds, as indicated by a higher prosocial breadth.

In Table I.1 of the Internet Appendix, we run a regression like (6) with measures of firms' exposure to legal risk, measured by exposure to regulatory fines and civil lawsuits, as dependent variables. After controlling for industry-time fixed, we observe that larger, lower book-to-market, and less profitable firms tend to be more exposed to legal risk. Legal risk exposure is also correlated positively with institutional ownership and prosocial breadth.[19]

5.2 Current ESG Ratings

We first validate prosocial overweight as a measure of perceived corporate compliance with social and legal norms. Specifically, we show that prosocial overweight is positively correlated with the ESG ratings assigned by five major ESG rating agencies: KLD, MSCI, Refinitiv, Sustainalytics, and TVL. If prosocial investors acquire information about firms' conduct and compliance, we should expect their holdings to reflect the advice of ESG rating agencies.

First, we compute correlations between prosocial overweight and the ESG scores obtained from the original ratings using the methodology described in section 2.1. The results are in Panel A of Table 4. Consistent with our conjecture, we find that prosocial overweight highly correlates with all five ESG scores.

[Insert Table 4 here]

Second, we run a regression similar to (6) in which we now include ESG scores, either individually or all together. By doing so, we control for firm characteristics and industry-time fixed effects, which may drive the correlation between ESG ratings and prosocial overweight. Moreover, by including all ESG scores in a single regression, we assess which ones possess the highest predictive power on prosocial overweight. Because ESG raters

[19] Although a positive correlation between legal risk and prosocial breadth might seem counterintuitive, this correlation also highlights the primary motivation for our methodology: prosocial funds typically incorporate conventional active-management strategies in their decisions, leading them to partially follow the strategies of conventional institutions. Hence, it is important to control for the strategies of conventional active funds, as we do with our methodology, to measure the perceived prosocial conduct of firms starting from prosocial fund holdings.

disagree substantially (Avramov et al., 2022; Berg et al., 2022b; Christensen et al., 2022), one might expect ESG ratings to have heterogeneous explanatory power on prosocial overweight.

Panel B of Table 4 reports the results. When ESG ratings are included individually in columns 1 to 5, we find that all of them positively correlate with prosocial overweight, with highly statistically significant coefficients, even after controlling for firm characteristics and industry-time fixed effects. When combined in a single regression in column 6, we find that ESG ratings have heterogeneous explanatory power on prosocial overweight. In particular, MSCI and Refinitiv scores are statistically significant at the 1% level, while Sustainalytics is marginally significant at the 10% level. Therefore, our results suggest that, after controlling for firm characteristics, prosocial investors appear to primarily incorporate information from MSCI and Refinitiv among the set of available ESG ratings.

Finally, according to the R^2 in column 6 of Table 4, we conclude that ESG ratings, firm-level characteristics, and time-industry fixed effects explain only 14% of the variance of prosocial overweight. A positive correlation between ESG ratings and prosocial overweight validates prosocial overweight as a measure of perceived corporate values. However, the low R^2 suggests that prosocial overweight incorporates information beyond that provided by ESG raters. As we show in section 6.1, prosocial overweight does indeed contain valuable information about the future risk of corporate misconduct.

5.3 Past Legal Events

We provide a second validation of prosocial overweight as a measure of perceived corporate compliance with legal and social norms. We now consider firms' track records in terms of past violations and controversies, as reflected in past regulatory fines and civil lawsuits, respectively. If prosocial overweight is a valid measure of perceived corporate compliance, firms with worse track records in terms of violations and controversies should be characterized by a lower prosocial overweight. In other words, compared to other active investors, prosocial investors should underweight companies that contributed negatively to stakeholder welfare in the past. For corporate violations, we use data on fines and penalties imposed on the firm by US federal and local agencies. To assess companies' exposure to controversies, we use Lequity's data on civil lawsuits filed against the firm in state and federal courts.

We run the following panel regression:

$$\textit{Prosocial Overweight}_{it} = \gamma \textit{Legal Event}_{i,t-3\to t} + \beta' X_{it} + \textit{FE}_{it} + \epsilon_{it} \tag{7}$$

where the dependent variable, $\textit{Prosocial Overweight}_{it}$, was defined in section 4.2. The variable $\textit{Legal Event}_{i,t-3\to t}$ measures firm i's exposure to legal events in the year (four quarters) up to and including quarter t. As legal events, we consider either regulatory fines or civil lawsuits filed against the company. Specifically, $\textit{Legal Event}_{i,t-3\to t}$ is an indicator taking the value of one if the firm was fined by a state or federal agency or was named defendant in a civil lawsuit in the four quarters leading up to and including quarter t. The vector X_{it} contains the same firm-level characteristics for firm i at year-quarter t used in regression (6), and includes total assets, book-to-market, ROA, leverage, CAPEX, institutional ownership, annual return, CAPM beta, return volatility, and prosocial breadth. These firm-level variables are defined in Table A.1 in the appendix. As fixed effects, $\textit{FE}_{it}$, we include either time or time-industry fixed effects. We cluster standard errors at the firm level.

[Insert Table 7 here]

We present results in Table 7. We find that companies that experienced adverse legal events in the previous year exhibit lower levels of prosocial overweight, which are reduced by 0.13 units of standard deviation, equivalent to 2.75 bps.

Overall, our results show that prosocial investors not only tilt their holdings consistently with ESG ratings but also incorporate past information about companies' track records regarding stakeholder welfare, as reflected in the legal system. In the next section, we investigate whether prosocial investors incorporate forward-looking information on corporate compliance when forming their portfolios.

6 The Predictive Power of Prosocial Overweight

In this section, we document that changes in prosocial overweight reflect forward-looking information about legal risk and stock performance, as suggested by our framework in section 4.1. Specifically, we show changes in prosocial overweight predict a lower risk

of regulatory fines and civil lawsuits in the future. However, they also predict lower risk-adjusted returns in the subsequent quarter.

6.1 Future Misconduct and Controversies

We show that the revealed preferences of prosocial investors contain forward-looking information about future corporate violations and controversies. If prosocial investors acquire new information about the risk of corporate misconduct, they will adjust their holdings accordingly in anticipation of future legal events. Specifically, we show that changes in prosocial overweight predict a lower probability of regulatory fines and civil litigation in the future. Furthermore, prosocial investors appear to incorporate forward-looking information on corporate misconduct specifically related to environmental and labor concerns.

6.1.1 Future Violations

We study whether changes in prosocial overweight predict future corporate violations. To investigate the predictive power of changes in prosocial overweight on violations, we run the following linear probability model:

$$\textit{Violation}_{i,t+1\to t+4} = \lambda \Delta \textit{Prosocial Overweight}_{it} + \beta' X_{it} + \textit{FE}_{it} + \epsilon_{it} \tag{8}$$

where the dependent variable $\textit{Violation}_{i,t+1\to t+4}$ is an indicator variable taking the value of one if firm i received a regulatory fine in quarters $t+1$ through $t+4$. The main explanatory variable $\Delta\textit{Prosocial Overweight}_{it}$ is the change in $\textit{Prosocial Overweight}_{it}$ from quarter $t-1$ to quarter t. We measure $\textit{Prosocial Overweight}_{it}$ as in section 4.2. In our regressions, we standardize $\Delta\textit{Prosocial Overweight}_{it}$ for ease of interpretation, thus expressing it in units of standard deviation. We express the dependent variable as a percentage. The vector X_{it} contains the same firm-level characteristics for firm i at year-quarter t used in regression (6), and include total assets, book-to-market, ROA, leverage, CAPEX, institutional ownership, annual return, CAPM beta, return volatility, and prosocial breadth. These firm-level variables are defined in Table A.1 in the appendix. As fixed effects, $\textit{FE}_{it}$, we include either time or time-industry fixed effects. We cluster standard errors at the firm level.

[Insert Table 8 here]

We present results in the first two columns of Panel A in Table 8.[20] We find that, regardless of the fixed effects we include, an increase in prosocial overweight predicts a lower probability of firms being fined by regulators. This effect is statistically significant at the 1% level and economically important. Based on the estimate in column 2, a one standard deviation increase in $\Delta Prosocial\ Overweight_{it}$, which is equal to 1.58 bps, is associated with a 23.9 bps decline in the probability of being fined in the future. In our sample, the empirical probability of a firm being fined by US regulators in a one-year period is 23%, meaning this effect represents approximately 1% of the unconditional probability.

One might be concerned that changes in prosocial overweight simply reflect changes in the public perception of corporations. To account for shifts in public perception of a firm's corporate values, in column 3 of Table 8, we control for the change in the composite ESG rating. We find that, after controlling for changes in ESG ratings, the predictive power of changes in prosocial overweight on future violations remains unchanged. This finding is consistent with institutional prosocial investors using their proprietary expertise and data to evaluate companies.

A second concern is that violations are autocorrelated and that institutional prosocial investors change their holdings solely in response to observed violations. If this were the case, changes in prosocial overweight would not contain forward-looking information on future violations. Instead, these variables would be spuriously correlated because of their common correlation with past violations. To rule out this concern, in column 4 of Panel A in Table 8, we control for past violations. Although violations are autocorrelated, as indicated by the positive and statistically significant coefficient on past violations, the predictive power of changes in prosocial overweight on future violations remains virtually unchanged. Therefore, changes in prosocial overweight appear to reflect the expertise of institutional prosocial investors, which use information beyond past violations.

A third concern is that information about violations became available to investors through news media before regulators impose the penalty. In this case, a quarterly change in prosocial overweight might simply be a reaction to the current news about future fines.

[20] In Table I.7 of the Internet Appendix, we present analogous results using an alternative measure of prosocial overweight constructed using deviations from the average holdings of conventional funds with the same style of the prosocial fund.

To address this concern, we control for quarterly news about firm-level ESG events by using the change in the TVL materiality pulse in column (5) of Panel A in Table 8. Even in this case, changes in prosocial overweight remain a strong predictor of future violations.

Next, we classify our sample of regulatory violations into three different categories: environmental, social, and governance violations. We report results in Panel B of Table 8. Prosocial investors appear to incorporate mainly information about future environmental violations. We do not find any statistically significant relation between changes in prosocial overweight and future social and governance violations. In terms of economic magnitudes, a one standard deviation increase in Δ*Prosocial Overweight*$_{it}$, equal to 1.58 bps, is associated with a 19.3 bps decline in the probability of environmental fines.

6.1.2 Future Litigation

Next, we show that changes in prosocial overweight predict future civil litigation. We proceed as we did for future violations and run a regression similar to (8) in which, now, we use *Litigation*$_{i,t+1\to t+4}$ as a dependent variable. This variable is an indicator taking the value of one if firm i was named defendant in a civil suit in quarters $t+1$ through $t+4$. To measure litigation, we use a novel dataset of civil complaints filed against corporations in state and federal court, which we described in section 2.1.

[Insert Table 9 here]

We report estimates in Table 9.[21] The results are consistent with our findings on future corporate violations. In the first two columns of Panel A, we show an increase in prosocial overweight predicts a decline in litigation risk in the future. A one standard deviation increase in Δ*Prosocial Overweight*$_{it}$, equal to 1.58 bps, is associated with a decline of about 23.4 bps in the probability of future litigation. The magnitude is similar to our estimated predictive relation between changes in prosocial overweight and future violations. Given that the average probability of being named defendant in a one-year period is, according to our sample, 28%, this effect represents 0.8% of the unconditional probability.

[21] In Table I.8 of the Internet Appendix, we present analogous results using an alternative measure of prosocial overweight constructed using deviations from the average holdings of conventional funds with the same style of the prosocial fund.

In column 3, we control for changes in the public perception of each firm's corporate values using changes in ESG ratings; in column 4, we control for past litigation; in column 5, we control for quarterly ESG news. Similar to what we found for violations, our results in these columns indicate that prosocial investors possess the expertise to evaluate a firm's exposure to future litigation and utilize incremental information, compared to the one provided by ESG ratings, past litigation, and news media.

In Panel B, we separately consider civil litigation related to three different matters: environmental, social, and governance-related matters. We then run predictive regressions of matter-specific litigation on the change in prosocial overweight. We find that changes in prosocial overweight reduce litigation risk across all three categories, with the strongest predictability observed for social matters. Economically, a one standard deviation increase in Δ*Prosocial Overweight*$_{it}$, equal to 1.58 bps, predicts a decline in the risk of social-related litigation equal to 21.9 bps. It also predicts a decline in the risk of environmental and governance lawsuits equal to 13.6 bps and 13.7 bps, respectively.

6.2 Future Returns

Next, we explore whether stocks that experience an increase in prosocial overweight generate lower returns in the subsequent quarter. Because firm-level characteristics correlate with prosocial overweight and stock return, we control for them using Fama and Macbeth (1973) regressions. We regress stock performance on lagged changes in prosocial overweight and firm-level control variables as follows:

$$R_{it+1} = \rho \Delta \textit{Prosocial Overweight}_{it} + \beta' X_{it} + \epsilon_{it} \tag{9}$$

where the dependent variable R_{it} represents stock i's risk-adjusted performance in quarter $t+1$. We use four different measures of risk-adjusted stock performance: the stock's market-adjusted return, calculated as the difference between the stock's return and the market return in quarter $t+1$; CAPM Alpha, calculated as the intercept in a CAPM regression of daily excess stock returns on daily excess market returns in quarter $t+1$; five-factor alpha, calculated as the intercept in a five-factor regression of daily excess stock returns

on the five Fama and French (2015) factors in quarter $t+1$;[22] a six-factor alpha, calculated as the intercept in a six-factor regression of daily excess stock returns on the five Fama and French (2015) factors and the greenium factor of Pástor et al. (2022) in quarter $t+1$.

To compute quarterly alphas, we cumulate monthly risk-adjusted returns within each quarter. Monthly risk-adjusted returns are calculated by first estimating factor loadings using 60-month rolling-window regressions, with a minimum requirement of 24 months of data. The risk-adjusted return for each month is then defined as the difference between the stock's realized return and the return predicted by the product of the estimated factor loadings and the factor returns.

The main explanatory variable, Δ*Prosocial Overweight*$_{it}$, is the change in prosocial overweight from quarter $t-1$ to quarter t for stock i. Prosocial overweight was defined in section 4.2. We standardize Δ*Prosocial Overweight*$_{it}$ for ease of interpretation. The vector X_{it} includes characteristics for firm i in quarter t. These firm-level variables, defined in Table A.1 in the appendix, include market-cap, book-to-market, ROA, leverage, CAPEX, institutional ownership, annual return, CAPM beta, return volatility, and prosocial breadth. We adjust for potential autocorrelation and heteroskedasticity by employing Newey-West standard errors with a lag length of three quarters.

[Insert Table 10 here]

The results are presented in Table 10.[23] We find that the coefficient on Δ*Prosocial Overweight*$_{it}$ is consistently negative and statistically significant across all performance measures. In economic terms, this negative coefficient indicates that a one standard deviation increase in Δ*Prosocial Overweight*$_{it}$, equal to 1.58 bps, is associated with a decline in annual performance ranging from 9.1 bps $\times$ 4 = 36.4 bps and 10.7 bps $\times$ 4 = 42.8 bps in terms of risk-adjusted returns. In Table I.5 of the Internet Appendix, we also control for quarterly news about the firm's prosocial conduct using changes in the TVL Materiality Pulse and find similar results.

[22]The five factors are the market (Mkt - RF), size (SMB), value (HML), profitability (RMW), and investment (CMA) factors.

[23]In Table I.9 of the Internet Appendix, we present analogous results using an alternative measure of prosocial overweight constructed using deviations from the average holdings of conventional funds with the same style of the prosocial fund.

Therefore, we find robust evidence that firms deliver lower expected returns following an increase in prosocial overweight.[24] These findings are consistent with the notion that to fulfill their dual mandate, prosocial investors need to trade off risk-adjusted performance for stakeholder welfare in their portfolio.

7 MECHANISM

Our findings, so far, indicate that changes in the portfolio allocation of prosocial investors predict firms' future legal risk. In this section, we evaluate whether the predictive power of prosocial overweight reflects the information acquired by prosocial investors or their involvement in firm's corporate governance. Overall, our empirical findings support the information-acquisition channel. We find no evidence in support of the governance channel.

7.1 UNCERTAINTY AND THE RETURNS-LEGAL RISK TRADE-OFF

We measure uncertainty using return volatility and the dispersion of ESG ratings. In particular, for stocks with higher return volatility and ESG-rating dispersion, we find that prosocial investors earn lower returns for the same reduction in exposure to legal risk. This result is consistent with these stocks being harder to evaluate due to their greater uncertainty. Moreover, the result suggests that investors pay a particularly high cost in terms of performance when implementing prosocial investment strategies in hard-to-value stocks.

7.1.1 RETURN VOLATILITY

Equation 4 and Prediction 3 suggest that stock volatility is an important source of heterogeneity. In particular, for stocks with higher volatility, positive changes in prosocial overweight should be associated with lower returns or lower exposure to legal risk, or

[24] As an additional robustness check on our results, in Table I.6 of the Internet Appendix, we run OLS panel regressions of future five-factor-plus-greenium alpha on $\Delta Prosocial\ Overweight_{it}$, controls, and various fixed effects. Even in this set of tests, changes in prosocial overweight predict lower risk-adjusted returns in the future.

both. By studying the predictability of returns and legal risk for different levels of volatility, we also assess whether the trade-off faced by prosocial investors becomes more pronounced for more volatile stocks. If changes in prosocial overweight are associated with lower returns in high-volatility stocks but no lower exposure to legal risk, then the trade-off between legal risk and return is more pronounced for high-volatility stocks. This result would indicate that funds must sacrifice more returns to achieve the same reduction of legal risk in volatile stocks. This pattern, which we document with our empirical tests ahead, is consistent with higher volatility stocks being more difficult to assess for investors.

To assess cross-sectional heterogeneity in the predictive power of changes in prosocial overweight, we run the following regression:

$$Y_{i,t+1} = \delta_1 \Delta \textit{Prosocial Overweight}_{it} + \delta_2 \textit{Ivol}_{it} + \delta_3 \Delta \textit{Prosocial Overweight}_{it} \times \textit{Ivol}_{it} + \beta' X_{it} + \textit{FE}_{it} + \epsilon_{it} \quad (10)$$

where $Y_{i,t+1}$ is an outcome variable representing either future misconduct, future litigation, or future alpha, similar to the outcome variables used in section 6. We use the same controls and fixed effects used in section 6 for predicting future legal events and alphas.

The quantity $\textit{Ivol}_{it}$ represents the de-meaned idiosyncratic volatility of stock i in quarter t. Idiosyncratic volatility is obtained from the standard deviation of the residual of a five-factor regression that uses daily return data within quarter t. We subtract the unconditional mean idiosyncratic volatility so that coefficient δ_1 can be interpreted as the relation between changes in prosocial overweight and future outcomes for a stock with average volatility.

If $\delta_3 < 0$, the slope of the relation between changes in prosocial overweight and outcomes is steeper for more volatile stocks. According to our framework in section 4.1, we should find $\delta_3 < 0$ when considering either future returns, future legal risk, or both. If $\delta_3 < 0$ for returns but $\delta_3 = 0$ for legal risk, this would indicate a more pronounced trade-off between returns and prosocial conduct for more volatile stocks, consistent with these stocks being more difficult to assess.

[Insert Tables 11 and 12 here]

The first two columns of Table 11 report results for misconduct and litigation. Similar to our main tests, a change in prosocial overweight is associated with lower legal risk for stocks with average volatility. That is, we find $\delta_1 < 0$ even after controlling for volatility and its interaction with changes in prosocial overweight. Idiosyncratic volatility does not correlate systematically with future legal risk after controlling for firm characteristics. Furthermore, from Table 11, we cannot reject the hypothesis that $\delta_3 = 0$ when we consider regressions predicting legal risk. The estimates are not only statistically insignificant but also economically negligible. That is, the relation between changes in prosocial overweight and future legal risk does not vary across stocks with different volatility.

Panel A of Table 12 reports results for returns. Here, the estimates indicate $\delta_1 < 0$, with an economic magnitude similar to the baseline results in Table 10. After controlling for the interaction with volatility, the relation between changes in prosocial overweight and future returns is marginally statistically significant only for five-factor alpha. However, we find that, for more volatile stocks, changes in prosocial overweight are associated with lower future returns. That is $\delta_3 < 0$, with statistically significant estimates in all specifications. The result, consistent with our theoretical framework, suggests that the lower performance of stocks experiencing an increase in prosocial overweight is primarily concentrated among high-volatility stocks.

Overall, because prosocial investors sacrifice more returns to obtain the same reduction of legal risk in more volatile stocks, our results suggest that the trade-off between returns and corporate compliance is more pronounced for volatile stocks, which are arguably more difficult to value.

7.1.2 Dispersion in ESG Ratings

Next, we consider another proxy for uncertainty: dispersion in ESG ratings. If the trade-off between returns and legal risk is more pronounced for more uncertain stocks, we should obtain similar results when we measure uncertainty in terms of dispersion in ESG ratings. Whereas volatility is a measure of uncertainty about financial returns, ESG-rating dispersion is a measure of public uncertainty about corporate values.

We, therefore, run a regression similar to (10), in which we replace $Ivol_{it}$ with $ESG\ Disp_{it}$, which measures the dispersion in ESG ratings. We calculate dispersion in ESG ratings

using the same methodology as Avramov et al. (2022).[25] We then de-mean ESG-rating dispersion so that coefficient δ_1 still represents the relation between changes in prosocial overweight and future outcomes for a stock with average ESG-rating disagreement.

Results are in the last two columns of Table 11 for misconduct and litigation and in Panel B of Table 12 for returns. Similar to our finding on the cross-section of volatility, we find the trade-off between returns and legal risk is more pronounced for stocks characterized by higher ESG-rating disagreement. For these stocks, a change in prosocial overweight predicts lower returns and no lower legal risk. For stocks with high ESG-rating dispersion, an increase in prosocial overweight is less predictive of lower litigation risk, although the estimated δ_3 coefficient is only marginally statistically significant.

7.2 GOVERNANCE

In this paper, we argue that prosocial institutional investors possess forward-looking information on corporate behavior and incorporate it in their holdings. An alternative explanation for the predictive power of prosocial overweight is that prosocial funds actively engage in firm governance after increasing their stake, which could reduce legal risk. For example, Lowry et al. (2023) demonstrate that some prosocial funds are committed to engaging with their portfolio companies.

We examine this mechanism and find no evidence that it explains the link between prosocial overweight and reduced legal risk. Specifically, we show that changes in prosocial fund ownership, which serve as a proxy for their influence on the firm, do not predict lower legal risk. Additionally, changes in prosocial overweight do not predict an increase in shareholder activism, measured by the approval or average support for ESG proposals.

7.2.1 PROSOCIAL OWNERSHIP

Ownership by prosocial funds has been widely used in the literature as a measure of a firm's prosocial qualities and its incentives to avoid ESG incidents (Azar et al., 2021; Bisetti et al., 2023; Chen et al., 2020; Dikolli et al., 2022; Dyck et al., 2019; Gantchev et al., 2022). While prosocial overweight reflects the excess portfolio allocation of prosocial funds to

[25]Like in Avramov et al. (2022), for each stock i and quarter t, we calculate all the pairwise standard deviations of ESG scores among all pairs of raters. We then take the average of these pairwise standard deviations to obtain a measure of ESG-rating disagreement for each stock i and quarter t.

a firm compared to conventional funds, prosocial ownership captures the actual voting power of prosocial funds within the firm. It also serves as a proxy for the influence prosocial funds may exert on firm managers through both formal and informal channels. Therefore, if prosocial funds mitigate firms' legal risk through their intervention in the firm's governance, we would expect increased prosocial ownership to be associated with lower legal risk.

In Table I.10 of the Internet Appendix, we replicate the tests from Panel A of Tables 8 and 9 using changes in stock ownership by prosocial funds. The results indicate that changes in prosocial institutional ownership do not predict future violations or civil litigation.

A possible explanation for this null result is that, as discussed in section 4, prosocial funds may invest as a part of a conventional return-driven strategy. Therefore, prosocial ownership does not account for the financial incentives of prosocial funds to acquire a stake in a company. In contrast, our measure of prosocial allocation captures the incremental bets prosocial funds place on firms due to their motivation to incorporate prosocial considerations into their portfolio allocation strategy, thus better capturing information about the firms' compliance to societal norms.

7.2.2 ESG Proposals

If an increase in prosocial overweight predicts lower legal risk through increased shareholder activism, one would expect to observe a correlation between changes in prosocial overweight and the approval of ESG proposals or the level of support they receive. In Table I.11 of the Internet Appendix, we run tests similar to those in Panel A of Tables 8 and 9, using the approval of ESG proposals in Panel A and the average support for ESG proposals in Panel B as the dependent variables. In both cases, we find no evidence that changes in prosocial overweight predict increased shareholder intervention in firms' ESG policies.

Overall, our null results suggest that the mechanism linking changes in prosocial overweight to changes in legal risk does not involve active intervention by prosocial investors in firm governance. Instead, as highlighted by the other tests in this section, the mechanism appears to rely primarily on prosocial investors acquiring information about firms' legal risk and trading to mitigate their exposure to it.

8 Conclusion

We show that institutional investors allocate capital based on the prosocial preferences of their clients and information about corporate misconduct. Our analysis incorporates novel datasets on civil litigation and regulatory fines to evaluate firm-level legal risk, an underexplored but critical indicator of a firm's compliance with societal norms. We show that prosocial funds experience significant outflows when exposed to legal risk, and they actively adjust their portfolios by reducing holdings in stocks likely to face future legal events. We develop a novel measure of prosocial overweight that reflects institutional investors' assessment of firms' corporate values based on their portfolio allocations. Our results show that increases in prosocial overweight predict a lower likelihood of future regulatory fines and lawsuits, with this predictive power persisting even after controlling for public ESG ratings and past legal events. We also find that prosocial investors face a trade-off between financial returns and legal risk mitigation as changes in prosocial overweight predict lower risk-adjusted returns in the future, particularly for stocks with high uncertainty. Our findings underscore the importance of considering legal risk as a key factor in prosocial investing and institutional decision-making.

These findings have several implications. First, the sensitivity of fund flows to legal risks implies that prosocial fund managers are under pressure to demonstrate their ability to manage exposure to corporate misconduct, which drives their portfolio decisions to avoid firms with higher legal risk. Second, the predictive power of prosocial overweight on future markers of misconduct suggest that prosocial institutional investors possess private information or proprietary models that enable them to predict legal risk more effectively than publicly available ESG ratings. Finally, the observed trade-off between returns and legal risk highlights the cost of responsible investing, particularly in firms with higher uncertainty, where prosocial investors accept lower returns to reduce their exposure to corporate misconduct. Overall, our results highlight key interactions between corporate governance, regulatory oversight, and market efficiency in the contexts of prosocial investing.

Our paper opens several avenues for future research. First, researchers can adopt our measure of prosocial overweight as a proxy for investors' perceptions of a firm's compliance to societal norms. This measure offers an alternative to prosocial institutional own-

ership, which, while widely used in the literature, does not account for the return-driven components of active prosocial funds and fails to predict future legal events, as shown in our analysis. Second, prosocial overweight can be employed to explore whether prosocial investors anticipate other firm-level outcomes, such as green patents, employee satisfaction, and green investments. Finally, our revealed-preference approach, which controls for conventional investment strategies, can be applied to other dual-mandate investors, such as sustainable private equity funds or those with specific prosocial commitments, like low-carbon funds.

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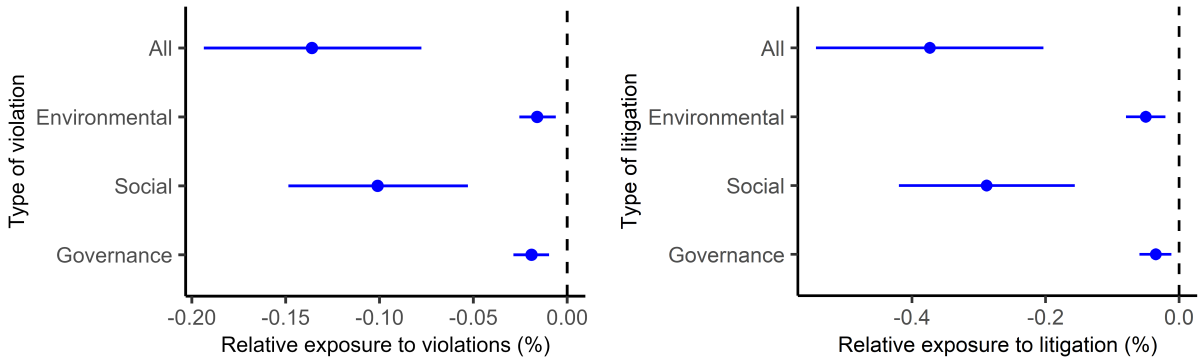
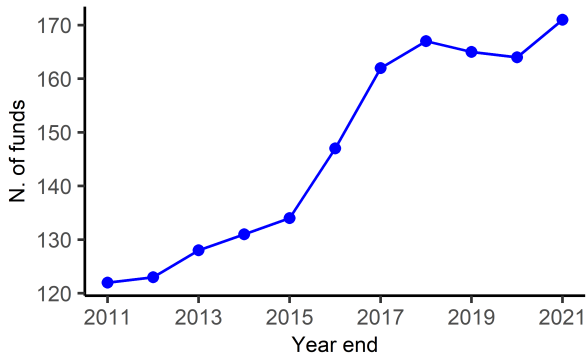
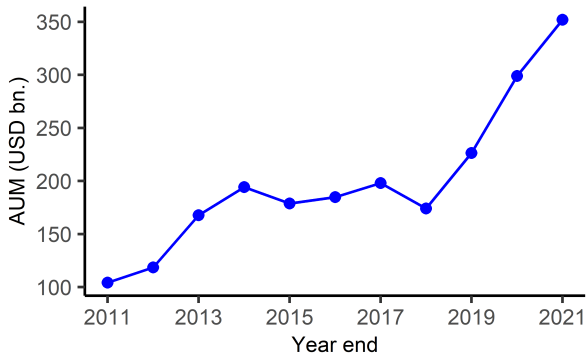


(a) Violation **(b)** Litigation

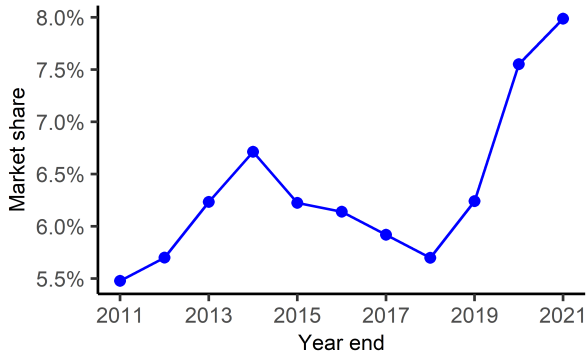
Figure 1: Exposure to legal risk in prosocial funds' portfolios relative to conventional funds' portfolios. The figures plot the estimated value and the 95% confidence interval for the coefficient η from regression (1). A negative estimate indicates that prosocial funds have lower exposure to legal risk than conventional funds of the same style. Standard errors are clustered at the fund level. We consider all legal events, or subsamples of environmental, social, or governance-related legal events. Figure 1(a) uses regulatory violations as legal events. Figure 1(b) uses civil lawsuits as legal events.



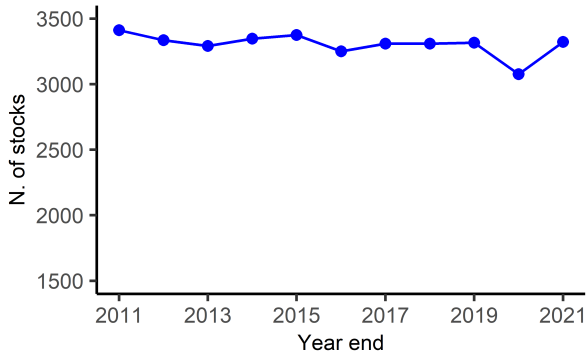
(a) Number of prosocial funds



(b) AUM of prosocial funds



(c) Market share of prosocial funds



(d) Stocks held by prosocial funds

Figure 2: Trends in prosocial investing. The figures plot the number of prosocial funds, their total AUM, the market share in terms of AUM relative to the total assets management by US domestic equity funds, and the number of portfolio companies held by prosocial funds.

Table 1: Summary Statistics: Firm Characteristics

This table shows mean, standard deviation, 10th percentile, median, 90th percentile, and the number of observations in a quarterly panel of the main firm characteristics used in the paper. The sample period runs from 2011 to 2022. All variables are defined in Table A.1 of the Appendix.

	Mean	SD	P10	P50	P90	Observations
Total Assets (log $)	7.93	1.75	5.72	7.85	10.21	96,987
Market Cap (log $)	7.85	1.61	5.85	7.73	10.02	94,069
Book-to-Market (%)	49.66	47.18	9.65	41.33	99.48	96,987
ROA (%)	0.44	4.68	-2.17	0.76	3.32	96,987
Return Volatility (%)	23.51	22.69	0.00	19.85	51.70	96,987
CAPEX (%)	0.86	1.29	0.01	0.49	2.03	96,987
Institutional Ownership (%)	64.03	32.13	0.00	76.04	94.60	96,987
Annual Return (%)	18.70	66.19	-25.88	11.30	62.23	96,987
CAPM Beta	1.18	0.63	0.49	1.09	1.95	96,987
Return Volatility (%)	2.31	1.36	1.10	1.95	3.96	96,987
Prosocial Breadth (%)	5.36	4.78	1.30	4.00	11.11	96,987
Prosocial News	54.42	22.31	23.33	53.26	84.64	74,918

Table 2: Summary Statistics: Prosocial Overweight

This table shows mean, standard deviation, 10th percentile, median, 90th percentile, and the number of observations in a quarterly panel of prosocial overweight and quarterly changes in prosocial overweight. The sample period runs from 2011 to 2022.

	Mean	SD	P10	P50	P90	Observations
Prosocial Overweight (bps)	-0.10	2.75	-2.87	-0.01	2.77	96,987
Δ Prosocial Overweight (bps)	0.00	1.58	-1.48	0.00	1.48	96,987

Table 3: Prosocial Overweight and Firm-Level Characteristics

This table shows the relation between prosocial overweight and contemporaneous firm characteristics. The dependent variable, *Prosocial Overweight*$_{it}$, is computed as described in section 4.2. *Prosocial News*$_{it}$ is the TVL *Materiality Pulse* of firm i in quarter t. All independent variables are expressed in units of standard deviation. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Prosocial Overweight$_{it}$			
	(1)	(2)	(3)	(4)
Total Assets$_{it}$	-0.597***	-0.609***	-0.776***	-0.875***
	(-11.43)	(-11.38)	(-12.54)	(-11.72)
Book-to-Market$_{it}$	0.245***	0.251***	0.158***	0.136***
	(6.21)	(6.10)	(4.58)	(3.60)
ROA$_{it}$	-0.047***	-0.049***	-0.074***	-0.076***
	(-3.01)	(-3.23)	(-3.93)	(-3.33)
Leverage$_{it}$	0.102***	0.100***	0.118***	0.136***
	(2.71)	(2.66)	(3.00)	(2.85)
CAPEX$_{it}$	-0.057**	-0.051**	-0.030	-0.062
	(-2.34)	(-2.09)	(-0.98)	(-1.54)
Institutional Ownership$_{it}$	0.010	0.009	0.017	0.019
	(0.40)	(0.36)	(0.71)	(0.68)
Annual Return$_{it}$	-0.040**	-0.050**	-0.063***	-0.063**
	(-2.34)	(-2.39)	(-2.81)	(-2.51)
CAPM Beta$_{it}$	0.049*	0.053**	0.072***	0.092***
	(1.91)	(2.04)	(2.67)	(2.92)
Return Volatility$_{it}$	-0.082***	-0.105***	-0.004	-0.009
	(-5.34)	(-5.05)	(-0.17)	(-0.30)
Prosocial Breadth$_{it}$	0.427***	0.435***	0.564***	0.612***
	(4.74)	(4.60)	(5.48)	(5.23)
Prosocial News$_{it}$				0.077***
				(3.26)
Time FE		Yes	Absorbed	Absorbed
Time x Industry FE			Yes	Yes
Observations	96,987	96,987	96,987	75,649
Adjusted R^2	0.029	0.031	0.059	0.064

Table 4: Prosocial Overweight and ESG Ratings

This table shows the relation between prosocial overweight and contemporaneous ESG ratings. Panel A shows correlations between a firm's prosocial overweight and the firm's ESG ratings. Panel B shows the results of panel regressions of prosocial overweight on ESG ratings and firm characteristics. The dependent variable, *Prosocial Overweight*$_{it}$, is computed as described in section 4.2. ESG ratings come from KLD (column 1), MSCI (column 2), Refinitiv (column 3), Sustainalytics (column 4), and TVL (column 5). In column 6, we include all ratings. Ratings are transformed into scores ranging from 0 to 100 using the methodology described in section 2.1 and are expressed in units of standard deviation. Firm characteristics include all the variables used in Table 3. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

Panel A: Correlation

	Prosocial Overweight$_{it}$	KLD$_{it}$	MSCI$_{it}$	Refinitiv$_{it}$	Sustainalytics$_{it}$	TVL$_{it}$
Prosocial Overweight$_{it}$	1.000					
KLD$_{it}$	0.031***	1.000				
MSCI$_{it}$	0.113***	0.373***	1.000			
Refinitiv$_{it}$	0.058***	0.492***	0.370***	1.000		
Sustainalytics$_{it}$	0.043***	0.354***	0.272***	0.427***	1.000	
TVL$_{it}$	0.048***	0.046***	0.129***	0.037***	0.025***	1.000

Panel B: Multivariate Analysis

	Prosocial Overweight$_{it}$					
	(1)	(2)	(3)	(4)	(5)	(6)
KLD$_{it}$	0.134***					-0.062
	(2.59)					(-0.94)
MSCI$_{it}$		0.214***				0.196***
		(4.82)				(3.20)
Refinitiv$_{it}$			0.286***			0.263***
			(5.01)			(3.47)
Sustainalytics$_{it}$				0.369***		0.214**
				(4.16)		(2.01)
TVL$_{it}$					0.081***	0.046
					(2.98)	(1.15)
Firm Characteristics$_{it}$	Yes	Yes	Yes	Yes	Yes	Yes
Time x Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	85,261	79,523	71,838	68,069	83,928	45,963
Adjusted R^2	0.089	0.093	0.106	0.104	0.084	0.136

Table 5: Fund Flows and Legal Exposure

This table shows the relation between fund flows and the incidence of corporate misconduct or corporate lawsuits in a fund's portfolio. The dependent variable, *Fund Flows*$_{ft}$, is computed as $(TNA_{ft}-TNA_{ft-1}(1+R_{ft}))/TNA_{ft-1}$, where TNA_{it} denotes fund i's total net assets at the end of quarter t and R_{ft} is the fund's net return in quarter t. *Prosocial Fund*$_f$ is an indicator variable taking the value of one if fund f is a prosocial fund. *Legal Exposure*$_{f,t-4\to t-1}$ is calculated as $\sum_{i=1}^{I} w_i^{ft}$*Legal Event*$_{i,t-4\to t-1}$, where w_i^{ft} is the share of fund f's AUM invested in firm i at the end of quarter t and *Legal Event*$_{i,t-4\to t-1}$ is an indicator variable taking the value of one if firm i was fined by a state or federal agency or was named defendant in a civil lawsuit in the four quarters leading up to and including quarter $t-1$. *Avg. ESG Rating*$_{f,t-4\to t-1}$ is the average of the fund's holding ESG ratings provided by KLD, MSCI, Refinitiv, Sustainalytics, and TVL in the four quarters leading up to and including quarter $t-1$. *Fund Flows*$_{f,t-4\to t-1}$ is the total net fund flows in the four quarters leading up to and including quarter $t-1$ expressed in percentage of the total net assets as of $t-4$. All independent variables are expressed in units of standard deviation. *Fund Characteristics*$_{i,t-1}$ includes fund size, expense ratio, turnover, and performance, all measured in quarter $t-1$. We also include an interaction term between fund performance and *Prosocial Fund*$_f$. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the fund level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Fund Flows$_{ft}$ (%)			
	(1)	(2)	(3)	(4)
Prosocial Fund$_f$	1.685**	1.432*	1.553**	0.681
	(2.24)	(1.87)	(1.98)	(1.57)
Legal Exposure$_{f,t-4\to t-1}$	-0.407***	-0.593***	-0.685***	-0.257**
	(-3.08)	(-3.54)	(-3.59)	(-2.47)
Prosocial Fund$_f$ × Legal Exposure$_{f,t-4\to t-1}$	-2.992**	-3.350***	-3.299***	-1.944***
	(-2.47)	(-2.69)	(-2.64)	(-2.76)
Fund Return$_{f,t-1}$	67.336***	69.037***	69.007***	64.622***
	(21.45)	(20.33)	(20.30)	(23.58)
Prosocial Fund$_f$ × Fund Return$_{f,t-1}$	2.126	1.997	2.066	-0.255
	(0.57)	(0.54)	(0.55)	(-0.09)
Avg. ESG Rating$_{f,t-4\to t-1}$			0.200	
			(0.76)	
Fund Flows$_{f,t-4\to t-1}$				9.030***
				(33.95)
Fund Characteristics$_{f,t-1}$	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes
Time x Style FE		Yes	Yes	Yes
Observations	68,594	68,594	68,594	68,594
Adjusted R^2	0.096	0.100	0.100	0.274

Table 6: Funds' Trading Activity and Legal Exposure

This table shows the relation between fund benchmark-adjusted trades and the incidence of corporate misconduct or corporate lawsuits in a fund's portfolio. The dependent variable, $\Delta(w_{ift} - w_{ib(f)})$, is the quarterly change in benchmark-adjusted holdings, where w_{ift} denotes the weight of stock i in the portfolio of fund f at the end of quarter t and $w_{ib(f)t}$ is the weight of the same stock in the fund's benchmark at time t. *Prosocial Fund*$_f$ is an indicator variable taking the value of one if fund f is a prosocial fund. *Legal Exposure*$_{f,t-4\to t-1}$ is calculated as $\sum_{i=1}^{I} w_i^{ft}$ *Legal Event*$_{i,t-4\to t-1}$, where w_i^{ft} is the share of fund f's AUM invested in firm i at the end of quarter t and *Legal Event*$_{i,t-4\to t-1}$ is an indicator variable taking the value of one if firm i was fined by a state or federal agency or was named defendant in a civil lawsuit in the four quarters leading up to and including quarter $t-1$. All independent variables are expressed in units of standard deviation. Firm characteristics include all variables in Table 3, and are measured in quarter $t-1$. The sample period runs from 2011 to 2022. Standard errors are double-clustered at the fund and stock level. t-statistics are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	$\Delta(w_{ift} - w_{ib(f)t})$		
	(1)	(2)	(3)
Legal Exposure$_{i,t+1\to t+4}$	0.007*	0.007	
	(2.05)	(1.81)	
Legal Exposure$_{i,t+1\to t+4}$ × Prosocial Fund$_f$	-0.010*	-0.010**	-0.010**
	(-2.01)	(-2.28)	(-2.54)
Firm Characteristics$_{it}$	Yes	Yes	
Fund FE	Yes		
Time FE	Yes		
Stock FE	Yes	Yes	
Fund x Time FE		Yes	Yes
Stock x Time FE			Yes
Observations	8,061,022	8,060,953	8,060,876
Adjusted R^2	0.017	0.066	0.103

Table 7: Prosocial Overweight and Past Legal Events

This table shows the relation between prosocial overweight and past corporate misconduct and litigation. The dependent variable, *Prosocial Overweight*$_{it}$, is computed as described in section 4.2. All independent variables are expressed in units of standard deviation. The independent variable *Legal Event*$_{i,t-3\to t}$ is an indicator taking the value of one if the firm was fined by a state or federal agency or named defendant in a civil lawsuit in the four quarters leading up to and including quarter t. Firm characteristics include all the variables used in Table 3. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Prosocial Overweight$_{it}$		
	(1)	(2)	(3)
Legal Event$_{i,t-3\to t}$	-0.130***	-0.128***	-0.131***
	(-3.15)	(-3.09)	(-3.20)
Total Assets$_{it}$	-0.547***	-0.560***	-0.718***
	(-10.85)	(-10.83)	(-11.83)
Book-to-Market$_{it}$	0.238***	0.244***	0.152***
	(6.19)	(6.08)	(4.52)
ROA$_{it}$	-0.047***	-0.049***	-0.078***
	(-3.02)	(-3.23)	(-4.12)
Leverage$_{it}$	0.108***	0.106***	0.117***
	(2.92)	(2.86)	(3.01)
CAPEX$_{it}$	-0.043*	-0.038	-0.028
	(-1.78)	(-1.56)	(-0.92)
Institutional Ownership$_{it}$	0.017	0.016	0.023
	(0.72)	(0.68)	(0.95)
Annual Return$_{it}$	-0.042**	-0.051**	-0.064***
	(-2.41)	(-2.44)	(-2.86)
CAPM Beta$_{it}$	0.051**	0.055**	0.070***
	(1.98)	(2.10)	(2.63)
Return Volatility$_{it}$	-0.083***	-0.104***	-0.006
	(-5.44)	(-5.01)	(-0.23)
Prosocial Breadth$_{it}$	0.445***	0.452***	0.577***
	(4.86)	(4.71)	(5.56)
Time FE		Yes	Absorbed
Time x Industry FE			Yes
Observations	96,987	96,987	96,987
R^2	0.031	0.033	0.080

Table 8: Prosocial Overweight and Future Violations

This table shows the relation between changes in prosocial overweight and future corporate misconduct. Δ *Prosocial Overweight*$_{it}$ is the change in prosocial overweight from quarter $t-1$ to quarter t for firm i, and it is expressed in units of standard deviation. In Panel A, the dependent variable is an indicator taking the value of one if the firm is fined by a federal or local government agency in the subsequent four quarters. In Panel B, we separately consider regulatory fines related to environmental, social, and governance violations in quarters $t+1$ through $t+4$. Δ ESG Rating$_{it}$ measures the change in the combined ESG score assigned to firm i by KLD, MSCI, Refinitiv, Sustainalytics, and TVL. Δ *Prosocial News*$_{it}$ is computed as the change in the TVL *Materiality Pulse* of firm i between from quarter $t-1$ to t. Firm characteristics include all variables in Table 3. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

Panel A: All Violation Categories

	Violation$_{i,t+1\to t+4}$				
	(1)	(2)	(3)	(4)	(5)
Δ Prosocial Overweight$_{it}$	-0.262***	-0.239***	-0.239***	-0.222**	-0.250**
	(-2.90)	(-2.66)	(-2.66)	(-2.32)	(-2.48)
Δ ESG Rating$_{it}$			0.276		
			(0.57)		
Violation$_{i,t-4\to t-1}$				0.372***	
				(33.61)	
Δ Prosocial News$_{it}$					-0.001
					(-0.26)
Firm Characteristics$_{it}$	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Absorbed	Absorbed	Absorbed	Absorbed
Time x Industry FE		Yes	Yes	Yes	Yes
Observations	96,987	96,987	96,987	96,987	74,918
Adjusted R^2	0.167	0.291	0.291	0.393	0.319

Panel B: Specific Violation Categories

	Violation$_{i,t+1\to t+4}$ by category		
	Environment	Social	Governance
	(1)	(2)	(3)
Δ Prosocial Overweight$_{it}$	-0.193***	-0.097	-0.057
	(-2.85)	(-1.10)	(-1.18)
Firm Characteristics$_{it}$	Yes	Yes	Yes
Time x Industry FE	Yes	Yes	Yes
Observations	96,987	96,987	96,987
Adjusted R^2	0.212	0.251	0.077

Table 9: Prosocial Overweight and Future Litigation

This table shows the relation between changes in prosocial overweight and future civil litigation. Δ *Prosocial Overweight*$_{it}$ is the change in prosocial overweight from quarter $t-1$ to quarter t for firm i, and is expressed in units of standard deviation. In Panel A, the dependent variable is an indicator taking the value of one if the firm is named defendant in a civil lawsuit at a federal or state court in the subsequent four quarters. In Panel B, we separately consider civil lawsuits related to environmental, social, and governance matters in quarters $t+1$ through $t+4$. Δ ESG Rating$_{it}$ measures the change in the combined ESG score assigned to firm i by KLD, MSCI, Refinitiv, Sustainalytics, and TVL. Δ *Prosocial News*$_{it}$ is computed as the change in the TVL *Materiality Pulse* of firm i between from quarter $t-1$ to t. Firm characteristics include all variables in Table 3. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

Panel A: All Lawsuit Categories

	Litigation$_{i,t+1\to t+4}$				
	(1)	(2)	(3)	(4)	(5)
Δ Prosocial Overweight$_{it}$	-0.276***	-0.234***	-0.234***	-0.216***	-0.253***
	(-3.43)	(-2.93)	(-2.93)	(-2.62)	(-2.87)
Δ ESG Rating$_{it}$			0.083		
			(0.18)		
Litigation$_{i,t-4\to t-1}$				0.411***	
				(38.75)	
Δ Prosocial News$_{it}$					-0.003
					(-0.76)
Firm Characteristics$_{it}$	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Absorbed	Absorbed	Absorbed	Absorbed
Time x Industry FE		Yes	Yes	Yes	Yes
Observations	96,987	96,987	96,987	96,987	74,918
Adjusted R^2	0.183	0.231	0.231	0.389	0.241

Panel B: Specific Lawsuit Categories

	Litigation$_{i,t+1\to t+4}$ by category		
	Environment	Social	Governance
	(1)	(2)	(3)
Δ Prosocial Overweight$_{it}$	-0.136**	-0.219***	-0.137**
	(-2.08)	(-2.83)	(-2.30)
Firm Characteristics$_{it}$	Yes	Yes	Yes
Time x Industry FE	Yes	Yes	Yes
Observations	96,987	96,987	96,987
Adjusted R^2	0.110	0.233	0.087

Table 10: Prosocial Overweight and Future Stock Performance

This table shows estimates from Fama and Macbeth (1973) regressions of stock performance on lagged changes in prosocial overweight and firm characteristics. The dependent variable is stock performance in quarter $t+1$ and it is measured as the quarterly return in excess of the market (column 1), quarterly CAPM alpha (column 2), quarterly five-factor alpha (column 3), for which we used the five Fama and French (2015) factors, and quarterly six-factor alpha (column 4), for which we further added the Pástor et al. (2022) greenium factor. Quarterly alphas are estimated by cumulating risk-adjusted monthly returns within the quarters. The factor loadings used to risk-adjust returns are estimated using a 60-month rolling window regressions, with a minimum required window of 24 months. All returns are expressed as percentages. Δ *Prosocial Overweight*$_{it}$ is the change in prosocial overweight from quarter $t-1$ to quarter t for firm i and is expressed in units of standard deviations. The sample period runs from 2011 to 2022. We adjust for potential autocorrelation and heteroskedasticity by employing Newey-West standard errors with a lag length of three quarters. t-statistics are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Market-Adjusted R_{it+1} (1)	CAPM α_{it+1} (2)	Five-Factor α_{it+1} (3)	Five-Factor + Greenium α_{it+1} (4)
Δ Prosocial Overweight$_{it}$	-0.107**	-0.107**	-0.094**	-0.091**
	(-2.60)	(-2.51)	(-2.07)	(-2.10)
Size$_{it}$	-0.151	-0.124	-0.359***	-0.251**
	(-0.92)	(-0.76)	(-3.03)	(-2.38)
Book-to-Market$_{it}$	-0.020	0.005	-0.042	0.272
	(-0.03)	(0.01)	(-0.16)	(1.04)
ROA$_{it}$	28.548***	26.141***	24.274***	25.008***
	(7.81)	(8.56)	(9.83)	(9.58)
Leverage$_{it}$	0.425	0.294	-0.523	0.111
	(0.53)	(0.41)	(-0.65)	(0.13)
CAPEX$_{it}$	-24.152	-25.752*	-36.824***	-20.670*
	(-1.53)	(-1.83)	(-2.76)	(-1.76)
Institutional Ownership$_{it}$	0.895***	0.870***	0.882***	0.755***
	(5.36)	(4.63)	(4.34)	(3.01)
CAPM Beta$_{it}$	0.768	-2.563***	-1.755***	-1.330*
	(0.78)	(-4.72)	(-2.71)	(-1.91)
Annual Return$_{it}$	-0.159	-0.217	0.183	-0.300
	(-0.43)	(-0.61)	(0.62)	(-0.64)
Return Volatility$_{it}$	-11.702	-9.865	-0.196	0.189
	(-0.58)	(-0.58)	(-0.01)	(0.01)
Prosocial Breadth$_{it}$	0.824	0.370	1.873	-0.079
	(0.42)	(0.18)	(0.77)	(-0.03)
Observations	97,052	97,052	97,052	97,052
Adjusted R^2	0.097	0.085	0.052	0.043

Table 11: Prosocial overweight and Future Legal Risk: Heterogeneity Based on Stock-Level Uncertainty

This table explores how the relation between changes in prosocial overweight and future corporate misconduct or litigation changes based on different values of idiosyncratic volatility and ESG rating disagreement. In columns 1 and 2, we interact changes in prosocial overweight between quarter $t-1$ and quarter t with the idiosyncratic volatility of firm i in quarter t, $Ivol_{it}$. In columns 3 and 4, we interact changes in prosocial overweight between quarter $t-1$ and quarter t with the ESG-rating dispersion of firm i in quarter t, $ESG\ Disp_{it}$. Δ *Prosocial Overweight*$_{it}$ is the change in prosocial overweight from quarter $t-1$ to quarter t for firm i, and it is expressed in units of standard deviation. In columns 1 and 3, the dependent variable, $Misconduct_{i,t+1\to t+4}$, is an indicator taking the value of one if the firm is fined by a federal or local government agency in the subsequent four quarters. In columns 2 and 4, the dependent variable, $Litigation_{i,t+1\to t+4}$, is an indicator taking the value of one if the firm is named defendant in a civil lawsuit at a federal or state court in the subsequent four quarters. Idiosyncratic volatility is computed as the standard deviation of the residuals from a regression of daily returns over a quarter on the daily market factor. Firm-level controls include all variables in Table 3. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Violation$_{i,t+1\to t+4}$ (1)	Litigation$_{i,t+1\to t+4}$ (2)	Violation$_{i,t+1\to t+4}$ (3)	Litigation$_{i,t+1\to t+4}$ (4)
Δ Prosocial Overweight$_{it}$	-0.280***	-0.232**	-0.236***	-0.214***
	(-2.88)	(-2.51)	(-2.60)	(-2.64)
Ivol$_{it}$	0.052	-0.427		
	(0.16)	(-1.19)		
Δ Prosocial Overweight$_{it}$ $\times$ Ivol$_{it}$	-0.107	-0.008		
	(-0.81)	(-0.06)		
ESG Disp$_{it}$			0.284	-0.102
			(0.96)	(-0.33)
Δ Prosocial Overweight$_{it}$ $\times$ ESG Disp$_{it}$			0.031	0.156*
			(0.31)	(1.69)
Firm Characteristics$_{it}$	Yes	Yes	Yes	Yes
Time FE	Absorbed	Absorbed	Absorbed	Absorbed
Time x Industry FE	Yes	Yes	Yes	Yes
Observations	96,987	96,987	96,987	96,987
R^2	0.306	0.247	0.306	0.247

Table 12: Prosocial Overweight and Future Stock Performance: Heterogeneity Based on Stock-Level Uncertainty

This table shows estimates from Fama and Macbeth (1973) regressions of stock performance on lagged changes in prosocial overweight interacted with idiosyncratic volatility or ESG rating disagreement. In Panel A, we interact changes in prosocial overweight between quarter $t-1$ and quarter t with the idiosyncratic volatility of firm i in quarter t, $Ivol_{it}$. In Panel B, we interact changes in prosocial overweight between quarter $t-1$ and quarter t with the ESG-rating dispersion of firm i in quarter t, $ESG\ Disp_{it}$. The dependent variable is stock performance in quarter $t+1$ and it is measured as the quarterly return in excess of the market (column 1), quarterly CAPM alpha (column 2), quarterly five-factor alpha (column 3), for which we used the five Fama and French (2015) factors, and quarterly six-factor alpha (column 4), for which we further added the Pástor et al. (2022) greenium factor. Quarterly alphas are estimated using 60-month rolling window regressions. We require a minimum window of 24 months. All returns are expressed as percentages. Δ *Prosocial Overweight*$_{it}$ is the change in prosocial overweight from quarter $t-1$ to quarter t for firm i and is expressed in units of standard deviations. Idiosyncratic volatility is computed as the standard deviation of the residuals from a regression of daily returns over a quarter on the daily market factor. Firm characteristics include all variables used in Table 3. The sample period runs from 2011 to 2022. We adjust for potential autocorrelation and heteroskedasticity by employing Newey-West standard errors with a lag length of three quarters. t-statistics are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

Panel A: Heterogeneity in Idiosyncratic Volatility

	Market-Adjusted R_{it+1} (1)	CAPM α_{it+1} (2)	Five-Factor α_{it+1} (3)	Five-Factor + Greenium α_{it+1} (4)
Δ Prosocial Overweight$_{it}$	-0.153	-0.158	-0.204*	-0.156
	(-1.51)	(-1.46)	(-1.95)	(-1.52)
Ivol$_{it}$	-0.247	-0.223	-0.098	0.099
	(-0.47)	(-0.44)	(-0.18)	(0.18)
Δ Prosocial Overweight$_{it}$ $\times$ Ivol$_{it}$	-0.274**	-0.271**	-0.290**	-0.265**
	(-2.16)	(-2.13)	(-2.51)	(-2.14)
Firm Characteristics$_{it}$	Yes	Yes	Yes	Yes
Observations	97,052	97,052	97,052	97,052
Adjusted R^2	0.111	0.099	0.066	0.054

Panel B: Heterogeneity in ESG Dispersion

	Market-Adjusted R_{it+1} (1)	CAPM α_{it+1} (2)	Five-Factor α_{it+1} (3)	Five-Factor + Greenium α_{it+1} (4)
Δ Prosocial Overweight$_{it}$	-0.121***	-0.122***	-0.106**	-0.102**
	(-2.98)	(-2.90)	(-2.36)	(-2.39)
ESG Disp$_{it}$	-0.044	-0.040	-0.016	-0.060
	(-0.59)	(-0.55)	(-0.22)	(-0.74)
Δ Prosocial Overweight$_{it}$ $\times$ ESG Disp$_{it}$	-0.126**	-0.132***	-0.116***	-0.114**
	(-2.65)	(-2.93)	(-2.92)	(-2.27)
Firm Characteristics$_{it}$	Yes	Yes	Yes	Yes
Observations	97,052	97,052	97,052	97,052
Adjusted R^2	0.099	0.086	0.053	0.044

APPENDIX

Table A.1: Variable Definitions

Variable	Definition
Prosocial Overweight Variables	
Prosocial Overweight$_{it}$	Computed as the average deviation of prosocial funds from their synthetic benchmark on stock i in quarter t. We define prosocial overweight in section 4.2
ΔProsocial Overweight$_{it}$	Defined as the change between $t-1$ and t in Prosocial Overweight$_{it}$.
Prosocial Overweight$^{A}_{it}$	Computed as the average deviation of prosocial funds from the average holdings of conventional funds with the same style for stock i in quarter t.
ΔProsocial Overweight$^{A}_{it}$	Defined as the change between $t-1$ and t in Prosocial Overweight$^{A}_{it}$.
Firm Variables	
Total Assets$_{it}$ (log)	Natural logarithm of a firm's total assets. Source: Compustat
Market Cap$_{it}$ (log)	Natural logarithm of a firm's market capitalization. Source: CRSP
Book-to-Market$_{it}$	The ratio of the book value of equity to the market value of equity. Source: Compustat.
ROA$_{it}$	Ratio of earnings before interest, taxes, depreciation, and amortization to total assets. Source: Compustat
Leverage$_{it}$	Ratio of long-term debt plus short-term debt to total assets. Source: Compustat
CAPEX$_{it}$	Ratio of firm capital expenditures to total assets. Source: Compustat
Institutional Ownership$_{it}$	The percentage of firm shares held by institutional investors. Source: Thomson Reuters 13F filings.
Annual Return$_{it}$	Cumulative stock return over the 12 months going from $t-12$ to $t-1$. Source: CRSP.
CAPM Beta$_{it}$	Coefficient obtained by regressing daily firm stock returns on the daily market factor. We require a minimum of 21 days of valid returns in a quarter; otherwise, we code the observation as missing.
Return Volatility$_{it}$	Standard deviation of daily firm stock returns, computed using daily returns in a quarter. We require a minimum of 21 days of valid returns in a quarter; otherwise, we code the observation as missing.
Prosocial Breadth$_{it}$	Computed as the ratio of the number of prosocial funds holding stock i to the total number of prosocial funds active at date t.
ESG Rating Variables	
KLD$_{it}$	Defined as the sum of all the strengths minus all the concerns. Source: KLD.
MSCI$_{it}$	Defined as the MSCI ESG Intangible Value Assessment (UVA). Source: MSCI.
Refinitiv$_{it}$	Defined as the ESG Combined Score. Source: Refinitiv.
Sustainalytics$_{it}$	Defined as the Sustainalytics Rank. Source: Sustainalytics.
TVL$_{it}$	Defined as the Insight Score. Source: TVL.
News Variables	
Prosocial News$_{it}$	Defined as the Materiality Pulse. Source: TVL.
Δ Prosocial News$_{it}$	Defined as the quarterly change in the Materiality Pulse. Source: TVL.
Corporate Misconduct Variables	
Violation$_{i,t\to s}$	An indicator variable coded as 1 if the firm is fined by regulators in the quarters ranging from t to s. We select corporate violations classified as environment-, social-, or governance-related. We classify a violation as environment-related if the "offense group" belongs to the category "environment-related offenses", or to the category "safety-related offenses", if those offenses are prosecuted by the "Nuclear Regulatory Commission" agency. We classify a violation as social-related if the "offense group" belongs to one of the following categories: "consumer-protection-related offenses"; "employment-related offenses"; "healthcare-related offenses"; "safety-related offenses", if those offenses are not prosecuted by the "Nuclear Regulatory Commission" agency. We classify a violation as governance-related if the "offense group" belongs to the category "financial offenses", or if the "primary offense" belongs to one of the following: "False Claims Act and related", "kickbacks and bribery", "accounting fraud or deficiencies", "fraud", "investor protection violation", "securities issuance or trading violation", "false statements", "insider trading". We exclude cases related to private litigation. Source: Violation Tracker

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Variable	Definition
$\text{Litigation}_{i,t\to s}$	An indicator variable coded as 1 if the firm is involved in civil litigation in the quarters ranging from t to s. We select corporate lawsuits classified as environment-, social-, or governance-related. Environment-related lawsuits are any lawsuit whose category type is one of the following: "environmental matter", "environment", "environment and land". Social-related lawsuits are any lawsuit whose category type is one of the following: "discrimination", "healthcare and pharmaceutical injuries", "human rights", "injured workers", "labor relations", "worker safety", "mass injuries", "wages and benefits", "product liability". Governance-related lawsuits are any lawsuit whose category type is one of the following: "fraud and false claims", "shareholder relations and securities", "taxes". Source: Lequity

INTERNET APPENDIX

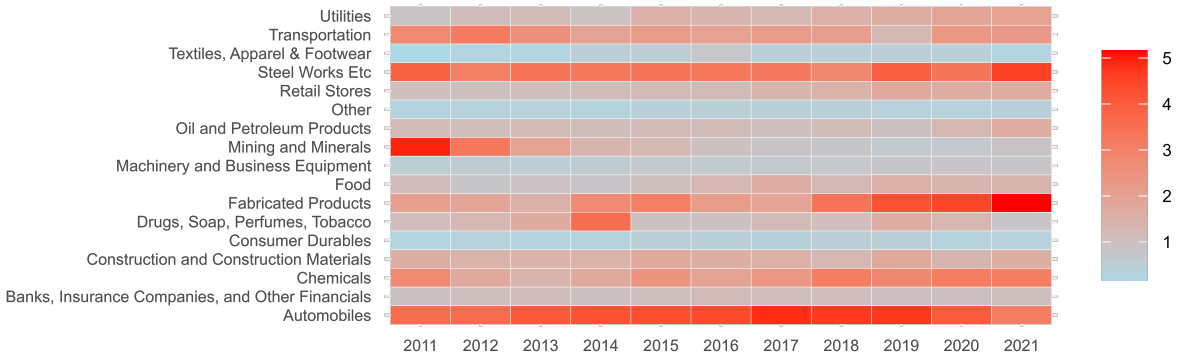
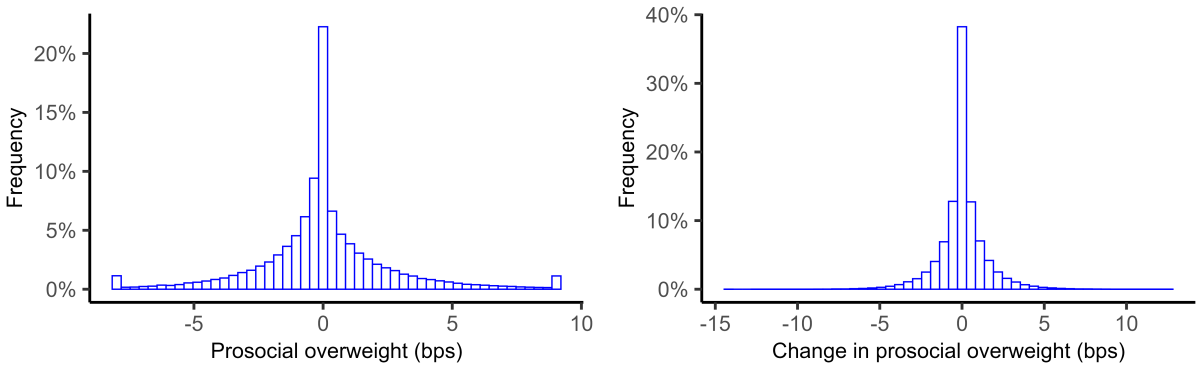


Figure I.1: Incidence of legal events across sectors. The figure visually shows sectors' exposure to legal events over time. For each sector, we compute the percentage of legal events experienced in that sector in each year over the total legal events of the year. We then compute the percentage of firms in that sector in the same year. We take the ratio of these two percentages and assign colors based on the value of this ratio. A ratio above (below) one indicates that firms in that sector were overexposed (underexposed) to legal events.



(a) Level of prosocial overweight

(b) Change in prosocial overweight

Figure I.2: Distribution of levels and changes of prosocial overweight. Frequency distribution of the level of prosocial overweight and the quarterly changes in prosocial overweight in firm-quarter panel data. Prosocial overweight is measured at the firm-quarter level. The change in prosocial overweight is calculated as the quarter-to-quarter change in a firm's level of prosocial overweight .

Table I.1: Misconduct and Firm-Level Characteristics

This table shows the relation between legal events and contemporaneous firm characteristics. In the first two columns, the dependent variable, $Violation_{it}$, is an indicator taking the value of one if the firm is fined by a federal or local government agency in quarter t. In the columns (3) and (4), the dependent variable, $Litigation_{it}$, is an indicator taking the value of one if the firm is named defendant in a civil lawsuit at a federal or state court in quarter t. Finally, in the last two columns, $Legal\ Event_{it}$ is an indicator taking the value of one if the firm is fined by a state or federal agency or is named defendant in a civil lawsuit in quarter t. All independent variables are expressed in units of standard deviation. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Violation$_{it}$		Litigation$_{it}$		Legal Event$_{it}$	
	(1)	(2)	(3)	(4)	(5)	(6)
Total Assets$_{it}$	0.083***	0.088***	0.656***	0.783***	0.129***	0.147***
	(16.36)	(17.63)	(4.05)	(3.84)	(21.05)	(23.43)
Book-to-Market$_{it}$	-0.005**	-0.007***	-0.106*	-0.076	-0.019***	-0.019***
	(-2.03)	(-2.65)	(-1.75)	(-1.49)	(-3.75)	(-3.40)
ROA$_{it}$	-0.003**	-0.008***	-0.088***	-0.095***	-0.002	-0.010***
	(-2.53)	(-5.71)	(-3.91)	(-3.30)	(-1.41)	(-5.48)
Leverage$_{it}$	0.007***	-0.005**	-0.054	-0.091*	0.016***	-0.003
	(2.84)	(-2.26)	(-1.26)	(-1.88)	(4.10)	(-0.68)
CAPEX$_{it}$	0.026***	-0.001	0.053	0.043	0.032***	0.005
	(7.12)	(-0.22)	(1.34)	(1.00)	(7.49)	(1.10)
Institutional Ownership$_{it}$	0.010***	0.007***	-0.104	-0.106	0.013***	0.009***
	(4.64)	(3.36)	(-1.53)	(-1.62)	(4.46)	(3.41)
Annual Return$_{it}$	-0.000	0.000	-0.015*	-0.018**	-0.002*	-0.001
	(-0.38)	(0.11)	(-1.86)	(-2.04)	(-1.88)	(-0.76)
CAPM Beta$_{it}$	0.001	-0.002	-0.027	-0.084	0.002	-0.005*
	(0.30)	(-0.96)	(-0.51)	(-1.19)	(0.56)	(-1.66)
Return Volatility$_{it}$	0.007***	0.005**	0.083***	0.009	0.008***	0.003
	(3.22)	(2.15)	(2.84)	(0.21)	(2.85)	(0.97)
Prosocial Breadth$_{it}$	0.023***	0.017***	0.401***	0.304***	0.046***	0.033***
	(3.92)	(3.16)	(4.73)	(2.97)	(7.35)	(5.82)
Time FE	Yes	Absorbed	Yes	Absorbed	Yes	Absorbed
Time x Industry FE		Yes		Yes		Yes
Observations	96,987	96,987	96,987	96,987	96,987	96,987
Adjusted R^2	0.102	0.172	0.057	0.065	0.175	0.241

Table I.2: Fund Flows and the Legal Exposure in the Top 10 Holdings

This table shows the relation between fund flows and the incidence of corporate misconduct or corporate lawsuits among a fund's top 10 holdings. The dependent variable, *Fund Flows*$_{ft}$, is computed as $(TNA_{ft} - TNA_{ft-1}(1+R_{ft}))/TNA_{ft-1}$, where TNA_{it} denote fund i's total net assets at the end of quarter t and R_{ft} is the fund's net return in quarter t. *Prosocial Fund*$_f$ is an indicator variable taking the value of one if fund f is an prosocial fund. *Legal Exposure*$_{f,t-4\to t-1}$ is calculated as $\sum_{i=1}^{I} w_i^{ft}$*Legal Event*$_{i,t-4\to t-1}$, where w_i^{ft} is the share of fund f's AUM invested in firm i at the end of quarter t and *Legal Event*$_{i,t-4\to t-1}$ is an indicator variable taking the value of one if firm i was fined by a state or federal agency or was named defendant in a civil lawsuit in the four quarters leading up to and including quarter $t-1$. *Top 10 ESG Rating*$_{f,t-4\to t-1}$ is the average of the ESG ratings of the fund's top 10 holdings provided by KLD, MSCI, Refinitiv, Sustainalytics, and TVL in the four quarters leading up to and including quarter $t-1$. *Fund Flows*$_{f,t-4\to t-1}$ is the total net fund flows in the four quarters leading up to and including quarter $t-1$ expressed in percentage of the total net assets as of $t-4$. All independent variables are expressed in units of standard deviation. *Fund Characteristics*$_{i,t-1}$ includes fund size, expense ratio, turnover, and performance, all measured in quarter $t-1$. We also include an interaction term between fund performance and *Prosocial Fund*$_f$. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Fund Flows$_{ft}$ (%)			
	(1)	(2)	(3)	(4)
Prosocial Fund$_{ft}$	6.709***	6.572***	6.571***	4.148***
	(3.47)	(3.41)	(3.41)	(3.38)
Top 10 Legal Event$_{f,t-1\to t-4}$	-1.305***	-1.328**	-1.291**	-0.694*
	(-2.59)	(-2.47)	(-2.45)	(-1.86)
Prosocial Fund$_{ft}$ × Top 10 Legal Event$_{f,t-1\to t-4}$	-3.876**	-3.728*	-3.787*	-2.744**
	(-2.00)	(-1.93)	(-1.96)	(-2.22)
Fund Return$_{f,t-1}$	67.846***	69.455***	69.454***	64.822***
	(21.60)	(20.44)	(20.45)	(23.71)
Prosocial Fund$_{ft}$ × Fund Return$_{f,t-1}$	1.331	1.318	1.279	-0.822
	(0.36)	(0.35)	(0.34)	(-0.28)
Top 10 ESG Rating$_{f,t-1\to t-4}$			-0.102	
			(-0.56)	
Fund Flows$_{f,t-1\to t-4}$				9.862***
				(33.93)
Fund Characteristics$_{i,t-1}$	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes
Time x Style FE		Yes	Yes	Yes
Observations	68,594	68,594	68,594	68,594
Adjusted R^2	0.096	0.099	0.099	0.274

Table I.3: Fund Flows and Legal Exposure - Sector Funds

This table shows the relation between fund flows and the incidence of corporate misconduct or corporate lawsuits in a fund's portfolio. The dependent variable, *Fund Flows*$_{ft}$, is computed as $(TNA_{ft}-TNA_{ft-1}(1+R_{ft}))/TNA_{ft-1}$, where TNA_{it} denote fund i's total net assets at the end of quarter t and R_{ft} is the fund's net return in quarter t. *Sector Fund*$_f$ is an indicator variable taking the value of one if fund f is a sector fund. *Legal Exposure*$_{f,t-4\to t-1}$ is calculated as $\sum_{i=1}^{I} w_i^{ft}$*Legal Event*$_{i,t-4\to t-1}$, where w_i^{ft} is the share of fund f's AUM invested in firm i at the end of quarter t and *Legal Event*$_{i,t-4\to t-1}$ is an indicator variable taking the value of one if firm i was fined by a state or federal agency or was named defendant in a civil lawsuit in the four quarters leading up to and including quarter $t-1$. *Avg. ESG Rating*$_{f,t-4\to t-1}$ is the average of the fund's holding ESG ratings provided by KLD, MSCI, Refinitiv, Sustainalytics, and TVL in the four quarters leading up to and including quarter $t-1$. *Fund Flows*$_{f,t-4\to t-1}$ is the total net fund flows in the four quarters leading up to and including quarter $t-1$ expressed in percentage of the total net assets as of $t-4$. All independent variables are expressed in units of standard deviation. *Fund Characteristics*$_{i,t-1}$ includes fund size, expense ratio, turnover, and performance, all measured in quarter $t-1$. We also include an interaction term between fund performance and *Sector Fund*$_f$. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the fund level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Fund Flows$_{ft}$ (%)			
	(1)	(2)	(3)	(4)
Sector Fund$_f$	2.729***	210.829***	210.800***	211.994***
	(9.17)	(74.24)	(74.59)	(87.93)
Legal Exposure$_{f,t-4\to t-1}$	-0.284***	-0.491***	-0.533***	-0.382***
	(-2.79)	(-3.72)	(-3.63)	(-3.46)
Sector Fund$_f$ × Legal Exposure$_{f,t-4\to t-1}$	0.249	0.423	0.428	0.395
	(0.89)	(1.22)	(1.24)	(1.32)
Fund Return$_{f,t-1}$	41.398***	48.188***	48.147***	44.030***
	(17.02)	(16.58)	(16.55)	(16.76)
Sector Fund$_f$ × Fund Return$_{f,t-1}$	0.051	13.666*	13.660*	2.038
	(0.02)	(1.90)	(1.90)	(0.32)
Avg. ESG Rating$_{f,t-4\to t-1}$			0.092	
			(0.54)	
Fund Flows$_{f,t-4\to t-1}$				3.455***
				(13.60)
Fund Characteristics$_{f,t-1}$	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes
Time x Style FE		Yes	Yes	Yes
Observations	81,104	81,093	81,093	81,093
Adjusted R^2	0.043	0.095	0.095	0.125

Table I.4: Funds' Trading Activity and Legal Exposure - Sector Funds

This table shows the relation between fund benchmark-adjusted trades and the incidence of corporate misconduct or corporate lawsuits in a fund's portfolio. The dependent variable, $\Delta(w_{ift} - w_{ib(f)t})$, is the quarterly change in benchmark-adjusted holdings, where w_{ift} denotes the weight of stock i in the portfolio of fund f at the end of quarter t and $w_{ib(f)t}$ is the weight of the same stock in the fund's benchmark b. *Sector Fund*$_f$ is an indicator variable taking the value of one if fund f is a sector fund. *Legal Exposure*$_{f,t-4\to t-1}$ is calculated as $\sum_{i=1}^{I} w_i^{ft}$ *Legal Event*$_{i,t-4\to t-1}$, where w_i^{ft} is the share of fund f's AUM invested in firm i at the end of quarter t and *Legal Event*$_{i,t-4\to t-1}$ is an indicator variable taking the value of one if firm i was fined by a state or federal agency or was named defendant in a civil lawsuit in the four quarters leading up to and including quarter $t-1$. All independent variables are expressed in units of standard deviation. Firm characteristics include all variables in Table 3, and are measured in quarter $t-1$. The sample period runs from 2011 to 2022. Standard errors are double-clustered at the fund and stock level. t-statistics are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	$\Delta(w_{ift} - w_{ib(ft)})$		
	(1)	(2)	(3)
Legal Exposure$_{i,t+1\to t+4}$	0.007*	0.006	
	(1.97)	(1.60)	
Legal Exposure$_{i,t+1\to t+4}$ × Sector Fund$_f$	-0.004	-0.000	0.001
	(-0.34)	(-0.02)	(0.13)
Firm Characteristics$_{it}$	Yes	Yes	
Fund FE	Yes		
Time FE	Yes		
Stock FE	Yes	Yes	
Fund x Time FE		Yes	Yes
Stock x Time FE			Yes
Observations	8,061,022	8,060,953	8,060,876
Adjusted R^2	0.017	0.066	0.103

Table I.5: Prosocial Overweight and Future Stock Performance: Controlling for News

This table shows estimates from Fama and Macbeth (1973) regressions of stock performance on lagged changes in prosocial overweight and firm characteristics. The dependent variable is stock performance in quarter $t+1$ and it is measured as the quarterly return in excess of the market (column 1), quarterly CAPM alpha (column 2), quarterly five-factor alpha (column 3), for which we used the five Fama and French (2015) factors, and quarterly six-factor alpha (column 4), for which we further added the Pástor et al. (2022) greenium factor. Quarterly alphas are estimated by cumulating risk-adjusted monthly returns within the quarters. The factor loadings used to risk-adjust returns are estimated using a 60-month rolling window regressions, with a minimum required window of 24 months. All returns are expressed as percentages. Δ *Prosocial Overweight*$_{it}$ is the change in prosocial overweight from quarter $t-1$ to quarter t for firm i and is expressed in units of standard deviations. The sample period runs from 2011 to 2022. Δ *Prosocial News*$_{it}$ is computed as the change in the TVL *Materiality Pulse* of firm i between from quarter $t-1$ to t. We adjust for potential autocorrelation and heteroskedasticity by employing Newey-West standard errors with a lag length of three quarters. t-statistics are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Market-Adjusted R_{it+1} (1)	CAPM α_{it+1} (2)	Five-Factor α_{it+1} (3)	Five-Factor + Greenium α_{it+1} (4)
Δ Prosocial Overweight$_{it}$	-0.087**	-0.086**	-0.102**	-0.095**
	(-2.12)	(-2.08)	(-2.20)	(-2.07)
Size$_{it}$	-0.136	-0.125	-0.346***	-0.257***
	(-0.83)	(-0.80)	(-3.93)	(-3.12)
Book-to-Market$_{it}$	-0.476	-0.418	-0.097	0.283
	(-0.83)	(-0.75)	(-0.35)	(1.01)
ROA$_{it}$	26.206***	25.243***	24.914***	25.175***
	(8.25)	(8.56)	(8.84)	(8.84)
Leverage$_{it}$	0.199	0.155	-0.482	0.241
	(0.24)	(0.21)	(-0.57)	(0.27)
CAPEX$_{it}$	-35.015**	-34.218**	-41.689**	-19.573
	(-2.30)	(-2.46)	(-2.62)	(-1.28)
Institutional Ownership$_{it}$	0.751***	0.712***	0.884***	0.843***
	(3.74)	(3.52)	(4.39)	(3.52)
CAPM Beta$_{it}$	0.778	-2.615***	-1.901***	-1.387*
	(0.74)	(-4.60)	(-2.80)	(-1.91)
Annual Return$_{it}$	-0.230	-0.266	0.262	-0.154
	(-0.56)	(-0.67)	(0.78)	(-0.31)
Return Volatility$_{it}$	-0.618	-0.967	5.675	5.443
	(-0.03)	(-0.05)	(0.31)	(0.32)
Prosocial Breadth$_{it}$	0.130	0.291	0.692	-0.544
	(0.07)	(0.17)	(0.36)	(-0.27)
Δ Prosocial News$_{it}$	0.004	0.004	0.003	0.002
	(1.15)	(1.13)	(0.83)	(0.51)
Observations	74,961	74,961	74,961	74,961
Adjusted R^2	0.099	0.083	0.053	0.045

Table I.6: Prosocial Overweight and Future Stock Performance: Panel Regressions

This table shows estimates from OLS panel regressions of stock performance on lagged changes in prosocial overweight and firm characteristics. The dependent variable is stock performance in quarter $t+1$ and it is measured as quarterly six-factor alpha (column 4), for which we added the Pástor et al. (2022) greenium factor to the five Fama and French (2015) factors. Quarterly alphas are estimated by cumulating risk-adjusted monthly returns within the quarters. The factor loadings used to risk-adjust returns are estimated using a 60-month rolling window regressions, with a minimum required window of 24 months. All returns are expressed as percentages. Δ *Prosocial Overweight*$_{it}$ is the change in prosocial overweight from quarter $t-1$ to quarter t for firm i and is expressed in units of standard deviations. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm and time level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Five-Factor + Greenium α_{it+1}			
	(1)	(2)	(3)	(4)
Δ Prosocial Overweight$_{it}$	-0.080*	-0.063*	-0.073**	-0.074**
	(-1.90)	(-1.87)	(-2.20)	(-2.22)
Size$_{it}$	-0.217*	-0.149	-0.150	-6.640***
	(-1.84)	(-1.26)	(-1.31)	(-9.18)
Book-to-Market$_{it}$	0.460	0.540*	0.553*	2.086***
	(1.50)	(1.70)	(2.01)	(4.78)
ROA$_{it}$	21.017***	21.308***	22.146***	26.084***
	(5.98)	(6.39)	(6.19)	(6.85)
Leverage$_{it}$	-0.558	-0.282	-0.006	-1.123
	(-0.64)	(-0.33)	(-0.01)	(-1.10)
CAPEX$_{it}$	-17.524	-23.947**	-10.638	-25.130*
	(-1.67)	(-2.34)	(-1.42)	(-1.97)
Institutional Ownership$_{it}$	0.625**	0.750**	0.673***	-0.077
	(2.10)	(2.65)	(2.80)	(-0.25)
CAPM Beta$_{it}$	-1.223**	-1.392**	-1.465**	-0.474
	(-2.06)	(-2.39)	(-2.47)	(-0.51)
Annual Return$_{it}$	-0.185	-0.145	-0.089	-0.084
	(-0.46)	(-0.36)	(-0.22)	(-0.16)
Return Volatility$_{it}$	-6.764	16.807	20.214	-2.557
	(-0.46)	(0.79)	(1.04)	(-0.13)
Prosocial Breadth$_{it}$	1.138	0.020	0.204	5.531*
	(0.38)	(0.01)	(0.10)	(1.71)
Time FE		Yes		
Time x Industry FE			Yes	Yes
Firm FE				Yes
Observations	97,052	97,052	97,052	97,052
Adjusted R^2	0.007	0.011	0.086	0.168

Table I.7: Prosocial Overweight and Future Violations: Deviation from the Average Active Fund

This table shows the relation between changes in prosocial overweight and future corporate misconduct. Δ *Prosocial Overweight*$^{A}_{it}$ is the change in prosocial overweight from quarter $t-1$ to quarter t for firm i, computed as the average deviation of prosocial funds from the average weight of conventional funds with the same style. This variable is expressed in units of standard deviation. The dependent variable is an indicator taking the value of one if the firm is fined by a federal or local government agency in the subsequent four quarters. Δ ESG Rating$_{it}$ measures the change in the combined ESG score assigned to firm i by KLD, MSCI, Refinitiv, Sustainalytics, and TVL. Δ *Prosocial News*$_{it}$ is computed as the change in the TVL *Materiality Pulse* of firm i between from quarter $t-1$ to t. Firm characteristics include all variables in Table 3. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Violation$_{i,t+1\to t+4}$				
	(1)	(2)	(3)	(4)	(5)
Δ Prosocial Overweight$^{A}_{it}$	-0.490***	-0.413***	-0.413***	-0.346***	-0.470***
	(-4.21)	(-3.66)	(-3.66)	(-3.02)	(-3.79)
Δ ESG Rating$_{it}$			0.279		
			(0.58)		
Violation$_{i,t-4\to t-1}$				0.372***	
				(33.59)	
Δ Prosocial News$_{it}$					-0.001
					(-0.19)
Firm Characteristics$_i t$	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Absorbed	Absorbed	Absorbed	Absorbed
Time x Industry FE		Yes	Yes	Yes	Yes
Observations	96,921	96,921	96,921	96,921	74,864
Adjusted R^2	0.167	0.291	0.291	0.393	0.319

Table I.8: Prosocial Overweight and Future Litigation: Deviation from the Average Active Fund

This table shows the relation between changes in prosocial overweight and future civil litigation. Δ *Prosocial Overweight*$^{A}_{it}$ is the change in prosocial overweight from quarter $t-1$ to quarter t for firm i, computed as the average deviation of prosocial funds from the average weight of conventional funds with the same style. This variable is expressed in units of standard deviation. The dependent variable is an indicator taking the value of one if the firm is named defendant in a civil lawsuit at a federal or state court in the subsequent four quarters. Δ ESG Rating$_{it}$ measures the change in the combined ESG score assigned to firm i by KLD, MSCI, Refinitiv, Sustainalytics, and TVL. Δ *Prosocial News*$_{it}$ is computed as the change in the TVL *Materiality Pulse* of firm i between from quarter $t-1$ to t. Firm characteristics include all variables in Table 3. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Litigation$_{i,t+1\to t+4}$				
	(1)	(2)	(3)	(4)	(5)
Δ Prosocial Overweight$^{A}_{it}$	-0.535***	-0.443***	-0.443***	-0.314***	-0.496***
	(-5.11)	(-4.20)	(-4.20)	(-3.01)	(-4.34)
Δ ESG Rating$_{it}$			0.925*		
			(1.80)		
Litigation$_{i,t-4\to t-1}$				0.493***	
				(47.19)	
Δ Prosocial News$_{it}$					-0.002
					(-0.52)
Firm Characteristics$_i t$	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Absorbed	Absorbed	Absorbed	Absorbed
Time x Industry FE		Yes	Yes	Yes	Yes
Observations	96,921	96,921	96,921	96,921	74,864
Adjusted R^2	0.193	0.231	0.231	0.421	0.239

Table I.9: Prosocial Overweight and Future Stock Performance: Deviation from the Average Active Fund

This table shows estimates from Fama and Macbeth (1973) regressions of stock performance on lagged changes in prosocial overweight and firm characteristics. The dependent variable is stock performance in quarter $t+1$ and it is measured as the quarterly return in excess of the market (column 1), quarterly CAPM alpha (column 2), quarterly five-factor alpha (column 3), for which we used the five Fama and French (2015) factors, and quarterly six-factor alpha (column 4), for which we further added the Pástor et al. (2022) greenium factor. Quarterly alphas are estimated from daily returns in the quarter. All returns are expressed as percentages. Δ *Prosocial Overweight*$^{A}_{it}$ is the change in prosocial overweight from quarter $t-1$ to quarter t for firm i, computed as the average deviation of prosocial funds from the average weight of conventional funds with the same style. This variable is expressed in units of standard deviation. The sample period runs from 2011 to 2022. We adjust for potential autocorrelation and heteroskedasticity by employing Newey-West standard errors with a lag length of three quarters. t-statistics are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

	Market-Adjusted R_{it+1} (1)	CAPM α_{it+1} (2)	Five-Factor α_{it+1} (3)	Five-Factor + Greenium α_{it+1} (4)
Δ Prosocial Overweight$^{A}_{it}$	-0.104***	-0.086**	-0.100***	-0.103**
	(-2.78)	(-2.21)	(-3.44)	(-2.66)
Size$_{it}$	-0.160	-0.127	-0.322**	-0.223*
	(-1.19)	(-0.96)	(-2.32)	(-1.81)
Book-to-Market$_{it}$	0.087	0.116	-0.014	0.284
	(0.12)	(0.17)	(-0.05)	(0.87)
ROA$_{it}$	29.262***	26.793***	24.504***	25.429***
	(7.11)	(7.70)	(11.60)	(11.88)
Leverage$_{it}$	0.332	0.211	-0.690	-0.061
	(0.38)	(0.27)	(-0.70)	(-0.06)
CAPEX$_{it}$	-22.329	-24.238*	-34.721***	-19.095**
	(-1.39)	(-1.76)	(-3.34)	(-2.18)
Institutional Ownership$_{it}$	0.863***	0.840***	0.842***	0.720***
	(6.23)	(5.86)	(4.31)	(3.06)
CAPM Beta$_{it}$	0.579	-2.322***	-1.629**	-1.253
	(0.67)	(-3.12)	(-2.18)	(-1.64)
Annual Return$_{it}$	-0.131	-0.189	0.034	-0.472
	(-0.44)	(-0.61)	(0.10)	(-1.09)
Return Volatility$_{it}$	-18.138	-14.466	0.080	0.797
	(-0.88)	(-0.91)	(0.01)	(0.09)
Prosocial Breadth$_{it}$	0.708	0.136	1.485	-0.344
	(0.44)	(0.09)	(0.76)	(-0.16)
Observations	99,546	99,546	99,546	99,546
Adjusted R^2	0.101	0.086	0.052	0.043

Table I.10: Prosocial Institutional Ownership and Future Misconduct

This table shows the relation between changes in ownership by prosocial funds, future misconduct, and future civil litigation. Δ *Prosocial Ownership*$_{it}$ is the change in the fraction of firm i's outstanding shares held by prosocial funds from quarter $t-1$ to quarter t, and it is expressed in units of standard deviation. In Panel A, the dependent variable is an indicator taking the value of one if the firm is fined by a federal or local government agency in the subsequent four quarters. In Panel B, the dependent variable is an indicator taking the value of one if the firm is named defendant in a civil lawsuit at a federal or state court in the subsequent four quarters. Firm characteristics include all variables in Table 3. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

Panel A: Misconduct

	Violation$_{i,t+1\to t+4}$			
	(1)	(2)	(3)	(4)
Δ Prosocial Ownership$_{it}$	-0.159	-0.016	-0.016	-0.020
	(-1.50)	(-0.16)	(-0.15)	(-0.20)
Δ ESG Rating$_{it}$			-0.316	
			(-0.62)	
Misconduct$_{i,t-4\to t-1}$				0.396***
				(34.73)
Firm Characteristics$_{it}$	Yes	Yes	Yes	Yes
Time FE	Yes	Absorbed	Absorbed	Absorbed
Time x Industry FE		Yes	Yes	Yes
Observations	96,987	96,987	96,987	96,987
Adjusted R^2	0.164	0.290	0.290	0.395

Panel B: Litigation

	Litigation$_{i,t+1\to t+4}$			
	(1)	(2)	(3)	(4)
Δ Prosocial Ownership$_{it}$	-0.094	-0.004	-0.004	-0.085
	(-0.88)	(-0.04)	(-0.03)	(-0.81)
Δ ESG Rating$_{it}$			-0.145	
			(-0.31)	
Litigation$_{i,t-4\to t-1}$				0.450***
				(40.77)
Firm Characteristics$_{it}$	Yes	Yes	Yes	Yes
Time FE	Yes	Absorbed	Absorbed	Absorbed
Time x Industry FE		Yes	Yes	Yes
Observations	96,987	96,987	96,987	96,987
Adjusted R^2	0.181	0.229	0.228	0.402

Table I.11: Prosocial Overweight and Future ESG Shareholder Proposals

This table shows the relation between changes in prosocial overweight and future approval and support for ESG shareholder proposals. Δ *Prosocial Overweight*$_{it}$ is the change in prosocial overweight from quarter $t-1$ to quarter t for firm i, and is expressed in units of standard deviation. In Panel A, the dependent variable is an indicator variable that takes the value of one if at least an ESG shareholder proposals is approved in quarters $t+1$ through $t+4$. In Panel B, the dependent variable is average support received by ESG shareholder proposals in quarters $t+1$ through $t+4$. Δ ESG Rating$_{it}$ measures the change in the combined ESG score assigned to firm i by KLD, MSCI, Refinitiv, Sustainalytics, and TVL. Firm characteristics include all variables in Table 3. The sample period runs from 2011 to 2022. t-statistics based on standard errors clustered at the firm level are reported in parentheses. * denotes significance at the 10% level, ** denotes significance at the 5% level and *** denotes significance at the 1% level. All variables are defined in Table A.1 of the Appendix.

Panel A: Approval of ESG Shareholder Proposals

	ESG Approval$_{i,t+1\to t+4}$			
	(1)	(2)	(3)	(4)
Δ Prosocial Overweight$_{it}$	0.032	0.037	0.037	0.051
	(0.76)	(0.88)	(0.88)	(1.14)
Δ ESG Rating$_{it}$			0.180	
			(0.94)	
ESG Approval$_{i,t-4\to t-1}$				2.306***
				(8.37)
Firm Characteristics$_{it}$	Yes	Yes	Yes	Yes
Time FE	Yes	Absorbed	Absorbed	Absorbed
Time x Industry FE		Yes	Yes	Yes
Observations	96,987	96,987	96,987	96,987
Adjusted R^2	0.021	0.027	0.027	0.055

Panel B: Average Support for ESG Shareholder Proposals

	ESG Support$_{i,t+1\to t+4}$			
	(1)	(2)	(3)	(4)
Δ Prosocial Overweight$_{it}$	-0.008	-0.007	-0.007	-0.005
	(-1.08)	(-0.93)	(-0.93)	(-0.60)
Δ ESG Rating$_{it}$			0.050	
			(1.23)	
ESG Support$_{i,t-4\to t-1}$				0.627***
				(11.72)
Firm Characteristics$_{it}$	Yes	Yes	Yes	Yes
Time FE	Yes	Absorbed	Absorbed	Absorbed
Time x Industry FE		Yes	Yes	Yes
Observations	96,987	96,987	96,987	96,987
Adjusted R^2	0.045	0.057	0.057	0.104