

PERCEIVED CORPORATE VALUES

Stefano Pegoraro* Antonino Emanuele Rizzo[†] Rafael Zambrana[‡]

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ABSTRACT

We show that values-oriented investors incorporate forward-looking information about corporate misconduct and litigation risk when forming their portfolios, but sacrifice performance by doing so. Using fund-holding data, we construct a time-varying firm-level measure of the sentiment of values-oriented investors, which reflects their perception of each firm's corporate values. An increase in sentiment predicts lower returns and a lower risk of regulatory fines and civil lawsuits in the future. The predictive power of sentiment is higher when public information about corporate values is noisier and when pecuniary information about firms is harder to assess, consistent with values-oriented investors allocating attention rationally.

KEYWORDS: values investing, corporate responsibility, mutual funds, sentiment, private information, portfolio choice, misconduct, lawsuits, ESG.

*University of Notre Dame, Mendoza College of Business – s.pegoraro@nd.edu.

[†]Nova SBE, Finance Department – emanuele.rizzo@novasbe.pt

[‡]University of Notre Dame, Mendoza College of Business – rzambra2@nd.edu.

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1 INTRODUCTION

In recent years, active institutional investors have been increasingly pursuing a dual mandate of improving investment performance and incorporating non-pecuniary values in their stock selection. Such values include environmental, social, and governance (ESG) considerations as well as broader ethical, religious, or political beliefs. Among active funds specializing in US domestic equity, values-oriented funds more than tripled their assets under management from 2011 to 2021, managing \$352 billion dollars as of the end of 2021. This amount represents 8% of the assets managed by active equity funds.

Because values-oriented investors pursue a dual mandate, economic theory predicts these funds face a trade-off. Whereas regular active investors acquire information and select stocks exclusively to deliver superior performance to investors, values-oriented investors must also assess the non-pecuniary corporate values of their portfolio companies. In particular, they acquire information about companies' practices and contributions to stakeholder welfare in areas such as environmental footprint or social justice. By incorporating this information in their investment decisions, values-oriented investors can select companies with better corporate values and a lower risk of misconduct and controversies. However, they will have to sacrifice performance compared to regular active investors.

Although the trade-off is clear from theory (Fama and French, 2007; Geczy et al., 2021; Pástor et al., 2021; Pedersen et al., 2020), surveys (Giglio et al., 2023; Riedl and Smeets, 2017), and experiments (Bonnefon et al., 2022; Heeb et al., 2023; Humphrey et al., 2021), empirical evidence from the real-world choices of values-oriented investors has been elusive so far. Previous literature has investigated primarily whether the holdings of a major subset of values-oriented investors, ESG investors, reflect publicly available information about corporate values and sustainability, as measured by ESG ratings or emissions. However, the question of whether values-oriented investors possess and incorporate forward-looking information to predict firms' future contribution to stakeholder welfare has remained unexplored so far. In this paper, we address this question.

To assess a firm's non-pecuniary values and contribution to stakeholder welfare, we use objective measures of corporate misconduct and litigation risk, which reflect the firm's negative contribution to stakeholder welfare.¹ For corporate misconduct, we use data on fines and penalties imposed on the firm by US federal and local agencies. To assess companies' exposure to litigation risk, we use a novel dataset of civil lawsuits filed

¹Whereas we can objectively measure negative contribution to stakeholder welfare using regulatory fines and civil lawsuits, one cannot objectively measure positive contribution to stakeholder welfare. In fact, the current US legal system is designed to sanction and recover the damages corporations cause, but not to reward them for the positive externalities they generate.

against the firm in state and federal courts. Although regulatory fines and legal controversy do not capture the entire spectrum of irresponsible or unethical behavior, they do represent objective instances of conduct that, according to US law, caused (or may have caused) damage to the company's stakeholders.

We then make three main contributions. First, we provide a measure of the perceived non-pecuniary values of a company derived from the revealed preferences of values-oriented investors. The measure summarizes the consensus view of values-oriented investors as reflected in their portfolio holdings and incorporates current and forward-looking information about non-pecuniary corporate values. Second, we show that values-oriented investors correctly predict corporate misconduct and controversies and sacrifice performance in order to avoid them. In particular, values-oriented investors tilt their portfolios toward firms that will experience fewer fines and lawsuits in the future but that will generate lower returns. Third, we propose a methodology to disentangle the values-oriented bets from the active bets in each investor's portfolio. This methodology can be applied to any setting in which an investor pursues additional objectives besides maximizing financial performance.

To obtain the values-oriented bets investors place on stocks, we compare the holdings of a values-oriented fund to the combined holdings of a suitably chosen portfolio of active (non-values-oriented) funds. Given a fund's investment style and passive benchmark, an active values-oriented fund will deviate from it to pursue its dual mandate. In particular, the fund will place active bets on stocks reflecting its expectations about future returns.² It will also place values-oriented bets on stocks reflecting the funds' perception of companies' contribution to stakeholder welfare. To isolate values-oriented bets from active bets and fund style, for each values-oriented fund in each quarter, we compare the funds' holdings with the combined holdings of a synthetic portfolio of active (non-values-oriented) funds with the same style as the values-oriented fund. We choose the weights to assign to active funds so that their combined holdings best replicate the holdings of the values-oriented fund. Hence, this synthetic portfolio of active (non-values-oriented) funds represents the best available investment for an investor who seeks to recreate the active bets of the values-oriented fund but who has no objectives in terms of corporate values. We use deviations of the values-oriented fund's holdings from the synthetic portfolio's holdings to estimate the values-oriented bets of the fund.

We aggregate values-oriented bets at the stock-quarter level to obtain a measure of the perceived corporate values of each company in each quarter, which we call *values-oriented sentiment*. By doing so, we aggregate the information and beliefs of all institutional in-

²Jiang et al. (2014) show active funds' deviations from their passive benchmarks predict future returns.

vestors with non-pecuniary mandates. The investors' consensus view should therefore reflect relevant information about each firm's non-pecuniary values dispersed across various funds, thus incorporating the wisdom of the institutional values-oriented crowd.³ Because values-oriented sentiment is based on the revealed preferences of investors that produce and consume information about firms' values and contributions to stakeholder welfare, the information contained in the values-oriented sentiment goes beyond ESG ratings. In a survey of institutional investors, Hirai and Brady (2021) document asset managers obtain information from multiple ESG rating agencies and combine it with their own information before making investment decisions. Using our measure of perceived corporate value as the consensus view of values-oriented funds, we can then test whether values-oriented funds incorporate current and forward-looking information on stakeholder welfare in their investment decisions.

We validate our measure of perceived corporate values, the values-oriented sentiment, by showing it incorporates existing public information on firms' non-pecuniary values as proxied by ESG ratings and the companies' legal track records. Specifically, values-oriented sentiment is positively correlated with ESG ratings, suggesting values-oriented funds tilt their portfolio consistently with the advice of ESG rating agencies. Moreover, values-oriented sentiment is negatively correlated with past corporate misconduct measured by past regulatory fines. Funds' values-oriented sentiment about a company is also negatively correlated with past lawsuits against the company. Therefore, values-oriented investors pursue their objective of investing responsibly by tilting their portfolio towards companies with a better track record in terms of stakeholder welfare.

We then show that the consensus view of values-oriented investors about corporate values contains forward-looking information on the risk of future misconduct and civil litigation. Firms experiencing an increase in their values-oriented sentiment are less likely to be fined by regulators in the subsequent quarters. Such firms are also less likely to be named defendants in civil lawsuits on environmental, social, and governance matters. Economically, a one standard deviation increase in the change of sentiment, equal to 2.55 bps, predicts a decline of 23.4 bps and 26.8 bps in the risk of future regulatory fines and litigation, respectively.⁴ Across various categories of violations and lawsuits, values-oriented investors specifically incorporate forward-looking information on future exposure to environmental and labor-related legal risk. This result is consistent with the notion that, for values-oriented investors, environmental responsibility and labor rela-

³Other 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).

⁴The legal outcomes need not be financially material. In fact, the median regulatory fine is only \$10,533.

tions represent key sources of stakeholder welfare (Freeman, 2010; Hart and Zingales, 2017).

We also show that values-oriented investors sacrifice performance to avoid exposure to corporate misconduct and litigation risk. This finding is consistent with the notion that to pursue its dual mandate; an investor must trade off risk-adjusted performance for stakeholder welfare in its portfolio. Firms experiencing a larger increase in their values-oriented sentiment will deliver worse returns in the next quarter. We measure returns in terms of raw returns, CAPM alpha, and multifactor alpha. We verify the predictive power of changes in values-oriented sentiment on future returns using portfolio sorts and Fama and Macbeth (1973) regressions. A quarterly-rebalanced zero-investment portfolio that goes long on stocks with an increase in sentiment and goes short on stocks with a decline in sentiment yields an annualized five-factor alpha of -2.19%.

We further test whether our results are driven by values-oriented investors allocating limited attention rationally between pecuniary information and non-pecuniary corporate values. Based on theories of rational allocation of attention (Kacperczyk et al., 2016; Grossman and Stiglitz, 1980), values-oriented investors should allocate more attention to a firm's non-pecuniary corporate values and less attention to the firm's pecuniary information when public uncertainty about corporate values is higher and when private information about pecuniary information is harder to assess. In these situations, the predictive power of sentiment on future misconduct, controversies, and returns should increase. When public uncertainty about a firm's contribution to stakeholder welfare is higher, investors need to rely more heavily on their private information on corporate values. When private information about pecuniary performance is harder to process, values-oriented investors are more likely to substitute it for information about non-pecuniary values. In both cases, values-oriented funds face a stronger incentive to allocate attention toward non-pecuniary corporate values and away from pecuniary information.

We verify these hypotheses in the data. We proxy for public uncertainty about corporate values using the dispersion of ESG ratings. We proxy for the difficulty of assessing private information about a firm's pecuniary performance using the dispersion of the holdings of non-values-oriented active funds. We show the predictive power of values-oriented sentiment on future misconduct, controversies, and returns increases when the dispersion in ESG ratings increases and when the dispersion in active holding increases. Therefore, according to our results, values-oriented investors allocate attention rationally, incorporating more information about a firm's contribution to stakeholder welfare when investors value such information more and when pecuniary information is harder to assess.

RELATED LITERATURE. A growing number of papers study the commitment of values-oriented funds to their objective of investing responsibly 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). Compared to these papers, we take a very different approach. In particular, these papers conduct fund-level studies of financial performance and social responsibility, whereas we conduct a stock-level study. Moreover, Cremers et al. (2023), Kim and Yoon (2022), Li et al. (2023), Pástor et al. (2023), and Gibson Brandon et al. (2022) measure the social responsibility of institutions' holdings using ESG ratings. We study the relation between the revealed preferences of values-oriented funds and the legal track record of companies using information about corporate misconduct and lawsuits. In fact, Avramov et al. (2022), Berg et al. (2023), and Christensen et al. (2022) show ESG raters may disagree significantly on their assessment of a given firm. Raghunandan and Rajgopal (2022) also uses corporate misconduct in its fund-level study of social responsibility, but they focus on the relation between ESG fund holdings and past misconduct, whereas we investigate the information revealed by fund holdings about future misconduct.

Our research is also related to papers studying the relationship between corporate social responsibility and stock performance. These papers use 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), current ESG ratings (Bansal et al., 2022; Chava, 2014; Ghouil et al., 2011; Pástor et al., 2022), or current social norms (Hong and Kacperczyk, 2009) to evaluate corporate responsibility. We take a revealed-preference approach and use the sentiment of values-oriented investors, as reflected in their holdings, to obtain a new measure of perceived corporate responsibility. We show changes in values-oriented sentiment contain forward-looking information about future corporate responsibility and future stock performance.

Focusing on firms' environmental impact, a growing literature in finance shows investors incorporate or should incorporate climate risk in their portfolio allocation. Krueger et al. (2020) provide survey evidence from a sample of institutional investors. Studies by Ramelli et al. (2021) and Starks et al. (2018) illustrate that long-horizon investors account for climate-related risk in their asset allocation. Hartzmark and Sussman (2019) show investors value mutual funds' sustainability ratings. Engle et al. (2020) show investors can form portfolios to hedge against climate-change risk arising from climate news and ESG scores. Alekseev et al. (2022) show mutual fund trades around shocks to climate beliefs provide information that can be used to construct a systematic climate-risk factor. Finally, results in Alok et al. (2020) indicate mutual funds overreact to salient climate disasters.

Some researchers investigate the relationship between ESG fund ownership and corporate social responsibility through governance and engagement (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). These papers study if ESG ownership causally affects environmental and social performance, whereas we focus on the values-oriented funds' ability to predict misconduct and controversies, regardless of the funds' ability to directly influence corporate outcomes. In fact, according to Berk and Van Binsbergen (2022), the amount of socially responsible capital is too small to affect firms' cost of capital. However, managers may still be able to predict future corporate behavior correctly.

Other papers studying the holdings ESG funds include Berg et al. (2023) and Chen et al. (2022). They focus on funds' actions in response to changes in ESG information as provided by ESG rating agencies, whereas we study the predictive power of values-oriented funds' portfolio choices on performance and legal events.

Our methodology to measure funds' values-oriented bets and sentiment draws from and generalizes existing contributions. Like Jiang and Sun (2014) and Jiang et al. (2014), we estimate a fund's bets as deviations of its portfolio weights from a benchmark and we focus on the financial and social performance of stocks that are overweighted and underweighted by values-oriented funds. Whereas Jiang and Sun (2014) and Jiang et al. (2014) use passive benchmarks to obtain a funds' active bets, we use a portfolio of (non-values-oriented) active funds to control for active strategies. Our approach is thus analogous to Hunter et al. (2014) and Cohen et al. (2005) who assess the relative performance of an active fund by comparing it with similar funds. However, these authors focus on performance at the fund level, whereas we study stock-level measures of sentiment and performance. Finally, to obtain an optimal portfolio of active funds to which we compare the holdings of a values-oriented fund, we generalize the methodology proposed by Cremers and Petajisto (2009). Whereas Cremers and Petajisto (2009) look for the single passive portfolio that best replicates the holdings of an active fund, we look for the linear combination of active portfolios that best replicates the holdings of a values-oriented fund.

2 DATA AND METHODOLOGY

In this section, we describe the data and discuss trends in values-oriented investing in recent years. We also introduce the methodology to construct our measure of values-oriented sentiment and show summary statistics for the firm-level variables used in our research.

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). To avoid passive funds, we eliminate funds with the CRSP objective code EDCL (S&P 500 Index Objective Funds). We also eliminate 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). To avoid multiple counting, we aggregate share-class-level data to the portfolio level. That is, 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. In line with previous research, we exclude closed-end funds, Americus trust component, ETF, and REITs. We eliminate stocks with prices below \$5 and exclude funds that hold less than 10 securities to mitigate the concern that our results are driven by outliers. 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 obtain data on firm misconduct from Violation Tracker. Violation Tracker contains comprehensive data on penalties exceeding \$5,000 assessed by federal and local agencies on corporations. Examples of such agencies are 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. When a subsidiary is fined, we attribute the fine to the parent company. 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 their ESG ratings and data on lawsuits filed against public companies in State and Federal courts. Compared to the Federal Judicial Center’s (FJC) data that have been 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 and federal courts, whereas FJC data contain only federal lawsuits. Second, Lequity obtains data from original sources and identifies all defendants in a lawsuit, whereas only the first defendant can be identified in FJC data.⁵ Lequity classifies lawsuits into 49 categories depending on the nature of the dispute. Examples of 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.

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 we 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 TVL. To ensure all scores are on the same scale and distributed according to the same distribution, we transform scores into percentile ranks. Specifically, for each score in each quarter, we rank firms on a scale from 0 to 100, with a higher rank being associated with a better ESG score. After this transformation, all quarterly ESG scores are uniformly distributed over the [0,100] interval.

2.2 TRENDS IN VALUES-BASED INVESTING

Within our sample of US equity active funds, we classify funds as values-oriented 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 values-oriented funds in the period from the first quarter of 2011 to the first quarter of 2022. Both the number and the assets under management (AUM) of values-oriented funds grew steadily over this decade, as shown in Figures 1(a)

⁵For 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.

and 1(b). The number of funds available to investors increased from 122 to 171, while their AUM grew from \$104 billion to \$352 billion. Figure 1(c) shows the time series of values-oriented fund’s market share in terms of AUM relative to the total assets managed by US equity active funds. Values-oriented funds’ market share was 8% at the end of 2021.

[Insert Figure 1 here]

Despite the growth in the number and AUM of values-oriented funds, the number of portfolio companies held by values-oriented funds barely changed over our sample period. Figure 1(d) shows that, between 2011 and 2021, the number of companies held by at least one values-oriented 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 VALUES-ORIENTED BETS AND SENTIMENT

An active values-oriented 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 because it expects the stock to over-perform (under-perform). Third, the fund may further adjust its position in the company to reflect the manager’s beliefs about the corporate values of the company. In particular, compared to an otherwise identical non-values-oriented active fund manager, a values-oriented fund manager may overweight (underweight) stocks he/she believes in providing superior (inferior) contributions to stakeholder welfare. We refer to these deviations from an otherwise identical non-values-oriented active fund as *values-oriented bets*.

To estimate a fund’s values-oriented bets, we compare each values-oriented fund’s holdings with the holdings of a synthetic portfolio of active (non-values-oriented) funds. Let $\{1, \dots, F\}$ be the set of all funds in the sample, and let $1, \dots, I$ be the set of securities. Consider a fund f in quarter t . Let $w^{ft} := (w_1^{ft}, \dots, w_I^{ft})$ be the fund’s portfolio, where w_i^{ft} is the share of fund f ’s AUM invested in stock i at the end of quarter t . Let $S(f, t)$ be the style of the fund.⁶ We define $E(t)$ as the set of active values-oriented funds at time t . From this set, we exclude funds that, up to quarter t , have never reached a size of \$5 million in terms of 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

⁶We use CRSP objective codes to identify a fund’s style.

$A(s, t)$ as the subset of non-values-oriented 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.⁷ Finally, we define $U(i, t) = \{e: \exists f \text{ s.t. } S(f, t) = S(e, t) \text{ and } w_i^{ft} > 0\}$ as the set of values-oriented funds whose investment style allows for security i . In other words, $e \in U(i, t)$ if, in quarter t , a fund f exists which has the same style of e and has positive holdings in stock i . Note we could have $f = e$. In other words, $U(i, t)$ represents the set of values-oriented funds whose investment opportunity set in quarter t contains stock i .

For each values-oriented fund $e \in E(t)$ and for each quarter t , we construct a portfolio of non-values-oriented active funds with the same style as e . This portfolio replicates as closely as possible the holdings of e . Formally, we estimate portfolio weights $\hat{\Theta}^{et} := (\hat{\theta}_1^{et}, \dots, \hat{\theta}_F^{et})$ by solving the following problem:

$$\left(\hat{\theta}_1^{et}, \dots, \hat{\theta}_F^{et}\right) = \arg \min_{(\theta_1, \dots, \theta_F) \in \mathbb{R}^F} \sum_{n=1}^N \left| w_n^{et} - \sum_{a=1}^F \theta_a w_n^{at} \right| \quad (1)$$

$$\text{s.t. } \theta_a = 0 \text{ for all } a \notin A(S(e, t), t) \quad (1a)$$

$$\text{s.t. } \sum_{a=1}^F \theta_a = 1. \quad (1b)$$

In (1), we seek a linear combination of fund portfolios with minimal distance from the portfolio of values-oriented fund e in quarter t . With condition (1a), we restrict the set of fund portfolios to non-values-oriented active funds with the same style as values-oriented fund e . Condition (1b) imposes that portfolio weights sum up to one. We thus obtain a synthetic portfolio

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

of non-values-oriented active funds with the same investment objective of fund e in quarter t .

By comparing the holdings of fund e , w^{et} , to the synthetic portfolio \hat{w}^{et} , we thus estimate the values-oriented bets of fund e . 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

⁷We do not restrict fund age for values-oriented funds because, as shown in Figure 1(a), values-oriented funds tend to be relatively new. By filtering by age, we would omit a sizeable fraction of our sample of values-oriented funds. However, our results are not driven by incubation bias in values-oriented funds. Whereas incubation bias introduces a semblance of outperformance, we find values-oriented funds overweight stocks that underperform compared to the holdings of non-values-oriented active funds.

holdings with the holdings of its passive benchmark, they estimate the active bets of the fund. We generalize active shares by looking for the linear combination of portfolios that best replicates the fund’s holdings.

The synthetic portfolio we obtain has attractive features. To begin with, 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 active share. Moreover, by estimating the linear combination of active funds that best replicates the values-oriented fund’s portfolio, we also control for the fund’s incentives to deviate from its benchmark because of expected performance. In fact, 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 value orientation. Therefore, we estimate the values-oriented bet of fund e on stock i in quarter t as

$$\text{ValuesBet}_i^{et} := w_i^{et} - \hat{w}_i^{et}.$$

For each stock i and for each quarter t , we define *values-oriented sentiment*, and denote as *ValuesSentiment*, as the average values-oriented bet of values-oriented funds on stock i in quarter t . To calculate the average, we restrict the sample to funds whose investment style allows for stock i . That is

$$\text{ValuesSentiment}_{it} := \frac{1}{|U(i, t)|} \sum_{e \in U(i, t)} \text{ValuesBet}_i^{et}$$

By restricting ourselves to the set $U(i, t)$, we make sure our measure of sentiment is not biased by style considerations. For example, if i is a large-cap stock, all small-cap funds will not include it in their portfolio. Using our methodology, we would then conclude that all small-cap values-oriented funds make bets equal to zero on the large-cap stock i . However, one cannot interpret these zero bets as indicating a lack of any sentiment on the stock by small-cap values-oriented funds. Instead, these zero bets simply reflect the specialization of these funds.

2.4 FIRM LEVEL VARIABLES AND SUMMARY STATISTICS

The main variables of interest are the level of values-oriented sentiment and quarterly changes in the sentiment. The level of values-oriented sentiment measures the perceived non-pecuniary values of a firm. Quarterly changes in sentiment measure new information that changed funds’ assessment of the firm’s corporate values. To reduce the influence of outliers, we winsorize the left and right-tail of the sentiment distribution at the 1% level.

In our empirical tests, we focus on the relation between sentiment, returns, miscon-

duct, and controversies while controlling for a series of firm-level, time-varying characteristics. In particular, we control for 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 values-oriented breadth of the stock (defined as the ratio of the number of values-oriented funds holding stock i to the total number of values-oriented funds active at date t). A comprehensive list of the firm-level variables used in this paper and their description is available in Table 1 in the Appendix.

[Insert Table 2 here]

Table 2 presents the summary statistics for sentiment measures and the firm-level control variables in our panel of 99,416 firm-month observations, with the definition of these variables provided in Table 1. Overall, both the level and change in *values sentiment* are characterized by a symmetric distribution centered around zero. The standard deviation of *Values Sentiment* is 2.55 bps. Approximately 80% of it comes from within-firm variation over time, which indicates that variation in the Values Sentiment variable is mainly driven by cross-sectional variation. Figure 2 in the Appendix plots the distribution of the level of sentiment and the changes in sentiment for the panel. When looking at the firm-level characteristics, the numbers are similar to those in other studies, which confirms our sample of firms is similar to those used in prior literature.

3 ESG SENTIMENT AND FIRM CHARACTERISTICS

In this section, we study the relationship between the level of values-oriented sentiment and firm characteristics, including firm fundamentals, past stock performance, ESG ratings, and legal events. In particular, we validate values-oriented sentiment as a measure of perceived corporate values. If values-oriented sentiment captures the consensus view of values-oriented funds about a firm's contribution to stakeholder welfare, it should reflect public information about the firm's non-pecuniary values. Consistent with this observation, we find that values-oriented sentiment correlates positively with ESG ratings and firms' past exposure to regulatory fines and civil lawsuits.

3.1 FIRM-LEVEL CHARACTERISTICS

We start by studying the relationship between values-oriented sentiment, firm fundamentals, and past stock performance in a multivariate setting. To evaluate how values-

oriented sentiment varies with firm-level characteristics, we run the following panel regression:

$$ValuesSentiment_{it} = \beta X_{it} + FE_{it} + \epsilon_{it}, \quad (2)$$

where the dependent variable, $ValuesSentiment_{it}$, is measured as defined in section 2.3 and X_{it} is a vector of fundamental and stock-market variables for firm i at year-quarter t . These variables, defined in Table 1, include total assets, book-to-market, ROA, leverage, CAPEX, institutional ownership, past annual return, past CAPM beta, past return volatility, and values-oriented 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 average time-series variation of sentiment and firm characteristics. By including industry-time fixed effects, we control for comovements between sentiment and firm-level characteristics across industries at any time. We cluster standard errors at the firm level.

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 values-oriented sentiment tend to be smaller in size, less profitable in terms of ROA, and more leveraged. They also possess higher book-to-market ratios. In regard to their past stock-market performance, firms with higher sentiment provided lower returns, carried higher market risk as measured by their CAPM beta, and, as one should expect, were more broadly held by values-oriented funds, as indicated by a higher values-oriented breadth.

[Insert Table 3 here]

3.2 CURRENT ESG RATINGS

We provide a first validation of values-oriented sentiment as a measure of perceived corporate values. Specifically, we show that values-oriented sentiment is positively correlated with the ESG ratings assigned by five major ESG rating agencies: KLD, MSCI, Refinitiv, Sustainalytics, and TVL. If values-oriented investors acquire information about non-pecuniary corporate values, we should expect their holdings to reflect the advice of ESG rating agencies.

First, we compute simple correlations between values-oriented sentiment 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 values-oriented Sentiment is highly correlated with all five ESG scores.

Second, we run a regression similar to (2) in which we now include ESG scores individually or combined. By doing so, we control for firm characteristics and industry-time fixed effects, which may drive the correlation between ESG ratings and values-oriented sentiment. Moreover, by including all ESG scores in a single regression, we assess which ones possess the highest predictive power on investors' perception of corporate values as reflected in values-oriented sentiment. Because ESG raters disagree substantially (Avramov et al., 2022; Berg et al., 2022; Christensen et al., 2022), one might expect ESG ratings to have heterogeneous explanatory power on values-oriented sentiment.

Panel B of Table 4 reports the results. When ESG ratings are included individually in columns 1 to 5, we find all of them positively correlate with values-oriented sentiment, with highly statistically significant coefficients event after controlling form firm characteristics and industry-time fixed effects. When combined in a single regression in column 6, we find ESG ratings have heterogeneous explanatory power on values-oriented sentiment. In particular, Refinitiv and MSCI scores are statistically significant at the 1% level, while Sustainalytics is marginally significant at the 10% level. Therefore, our results suggest that, after controlling firm characteristics, values-oriented 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 values-oriented sentiment. Whereas a positive correlation between ESG ratings and values-oriented sentiment provides validation to our measure of perceived corporate values, the low R^2 suggests that values-oriented sentiment incorporates information in addition to that provided by ESG raters. As we show in section 4, values-oriented sentiment does indeed contain information about the future risk of corporate misconduct and firm controversies.

[Insert Table 4 here]

3.3 PAST CORPORATE MISCONDUCT AND LITIGATION

We provide a second validation of values-oriented sentiment as a measure of perceived corporate values. We now consider firms' track records in terms of past misconduct and controversies, as reflected in past regulatory fines and civil lawsuits, respectively. If values-oriented sentiment is a valid measure of perceived corporate values, firms with worse track records in terms of misconduct and controversies should be characterized by a lower values-oriented sentiment. In other words, compared to other active investors,

values-oriented investors should underweight companies that contributed negatively to stakeholder welfare in the past. For corporate misconduct, 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:

$$ValuesSentiment_{it} = \gamma LegalEvent_{i,t-3 \rightarrow t} + \beta X_{it} + FE_{it} + \epsilon_{it} \quad (3)$$

where the dependent variable, $ValuesSentiment_{it}$, was defined in section 2.3. The variable $LegalEvent_{i,t-3 \rightarrow t}$ 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 penalties or civil lawsuits filed against the company. Specifically, we define $Misconduct_{i,t-3 \rightarrow t}$ as an indicator taking the value of one if the firm was fined by a state or federal agency in the four quarters leading up and including to quarter t . We define $Litigation_{i,t-3 \rightarrow t}$ as an indicator taking the value of one if the firm 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 (2), and include total assets, book-to-market, ROA, leverage, CAPEX, institutional ownership, annual return, CAPM beta, return volatility, and values-oriented breadth. These firm-level variables are defined in Table 1 in the appendix. As fixed effects, FE_{it} , we include either time fixed effects or time-industry fixed effects. We cluster standard errors at the firm level.

We present results in Table 5. We find that, regardless of specification, companies that were fined for corporate misconduct in the previous year exhibit current values of values-oriented sentiment that are lower by 11 to 13 basis points. The effects hold economic significance, as they represent between 4% and 5% relative to the standard deviation of values-oriented sentiment (2.55). An analogous interpretation emerges when examining the link between corporate lawsuits and values-oriented sentiment. Firms implicated in controversies due to their involvement in civil lawsuits in the previous year exhibit levels of values-oriented sentiment that are lower by 3 to 10 basis points.

Overall, in this section, we provided evidence that values-oriented sentiment represents a valid measure of perceived corporate values. Values-oriented investors not only tilt their holdings consistently with ESG ratings, but they also incorporate past information about companies' track records in terms of stakeholder welfare as reflected in the legal system. In the next section, we investigate whether values-oriented investors incorporate forward-looking information on corporate values when forming their portfolios.

[Insert Table 5 here]

4 FORWARD-LOOKING INFORMATION ON CORPORATE MISCONDUCT AND CONTROVERSIES

In this section, we show the revealed preferences of values-oriented investors contain forward-looking information about future corporate misconduct and controversies. If values-oriented investors receive new information about corporate values, they will adjust their holdings accordingly in anticipation of future legal events. Specifically, we show changes in values-oriented sentiment predict a lower probability of regulatory fines and civil litigation in the future. Furthermore, values-oriented investors appear to specifically incorporate forward-looking information on firm values related to environmental and labor concerns.

4.1 FUTURE MISCONDUCT

In section 3, we showed firms with a track record of past misconduct have lower levels of values-oriented sentiment. Now, we study whether changes in values-oriented sentiment predict future episodes of corporate misconduct. To investigate the predictive power of changes in sentiment on misconduct, we run the following linear probability model:

$$Misconduct_{i,t+1 \rightarrow t+4} = \lambda \Delta ValuesSentiment_{it} + \beta X_{it} + FE_{it} + \epsilon_{it} \quad (4)$$

where the dependent variable $Misconduct_{i,t+1 \rightarrow t+4}$ is an indicator variable taking the value of 1 if firm i received a regulatory fine in quarters $t+1$ through $t+4$. The main explanatory variable $\Delta ValuesSentiment_{it}$ is the change in $ValuesSentiment_{it}$ from quarter $t-1$ to quarter t . We measure $ValuesSentiment_{it}$ as in section 2.3. In our regressions, we standardize $\Delta ValuesSentiment_{it}$ for ease of interpretation, thus expressing it in units of standard deviation. We also express the dependent variable in percentages. The vector X_{it} contains the same firm-level characteristics for firm i at year-quarter t used in regression (2), and include total assets, book-to-market, ROA, leverage, CAPEX, institutional ownership, annual return, CAPM beta, return volatility, and values-oriented breadth. These firm-level variables are defined in Table 1 in the appendix. As fixed effects, FE_{it} , we include either time fixed effects or time-industry fixed effects. We cluster standard errors at the firm level.

We present results in the first two columns of Panel A in Table 6. We find that, regardless of the fixed effects we include, an increase in values-oriented sentiment 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 $\Delta ValuesSentiment_{it}$, which is equal to 2.55 bps, is associated with a 23.4 bps decline in the probability of being fined in the future. Given that the average probability of being fined for corporate misconduct in our sample is 23%, this effect represents a 1% of the unconditional probability.

One might be concerned that misconduct is autocorrelated and that values-oriented funds change their holdings solely in response to observed misconduct. If this is the case, changes in values-oriented sentiment would not contain forward-looking information on future misconduct and, instead, would be spuriously correlated with it because of their correlation with observed misconduct. To rule out this concern, in column 3 of Panel A in Table 6, we include lead and lags of changes in values-oriented sentiment. Here, we show that, whereas changes in values-oriented sentiment up to time t are correlated with misconduct after time t , changes in values-oriented sentiment after time t are not. Therefore, we provide evidence that changes in values-oriented sentiment contain forward-looking information on the future risk of corporate violations because changes in values-oriented sentiment are not correlated to contemporaneous corporate misconduct.

Next, we classify our sample of regulatory violations into four different categories: environmental, labor, consumer protection, and financial violations. We report results in Panel B of Table 6. Values-oriented investors appear to incorporate information about future environmental and labor-related misconduct. We do not find any statistically significant relation between changes in values-oriented sentiment and future consumer protection and financial violations. In terms of economic magnitudes, a one standard deviation increase in $\Delta ValuesSentiment_{it}$, equal to 2.55 bps, is associated to 11.1 bps and 12.1 bps declines in the unconditional probability of environmental and labor-related fines, respectively.

[Insert Table 6 here]

4.2 FUTURE LITIGATION

Next, we show that changes in values-oriented sentiment predict future civil litigation. We proceed as we did for future misconduct and run a regression similar to (4) in which, now, we use $Litigation_{i,t+1 \rightarrow t+4}$ as a dependent variable. This variable is an indicator taking the value of 1 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.

We report estimates in Table 7. The results are consistent with our findings on future corporate misconduct. In Panel A, we show an increase in values-oriented sentiment predicts a decline in litigation risk in the future. A one standard deviation increase in $\Delta ValueSentiment_{it}$, equal to 2.55 bps, is associated with a decline of about 26.8 bps in the probability of future litigation. The magnitude is similar to our estimated predictive relation between changes in sentiment and future misconduct. Given that the average probability of being named defendant in our sample is 28%, this effect represents about 1% of the unconditional probability.

In Panel B, we separately consider civil litigation related to four different matters: environmental, labor-related, consumer-related, and finance-related matters. We then run predictive regressions of matter-specific litigation on the change in values-oriented sentiment. Consistent with analogous tests on category-specific misconduct, we find changes in values-oriented sentiment best predict litigation risk in environmental and labor-related matters. The relation is highly statistically significant and, economically, a one standard deviation increase in $\Delta ValueSentiment_{it}$, equal to 2.55 bps, predicts a decline in the risk of environment-related and labor-related litigation equal to 21.0 bps and 31.0 bps, respectively.

[Insert Table 7 here]

5 STOCK RETURNS

In this section, we explore whether stocks that experience an increase in values-oriented sentiment generate lower returns in the subsequent quarter. A combination of these results and the findings of section 4 would be consistent with values-oriented investors trading off performance for lower legal risk in their portfolio.

We start by investigating whether changes in values-oriented sentiment predict the future performance of stocks. We conduct two sets of tests. First, we form quarterly-rebalanced portfolios of stocks based on changes in sentiment. We then investigate their performance in the next quarter. Second, we run Fama and Macbeth (1973) regressions to study the cross-sectional relation between changes in sentiment and future return. Both sets of tests indicate an increase in values-oriented sentiment is associated with negative stock performance in the future.

5.1 QUARTERLY-REBALANCED PORTFOLIOS

As a starting point for our analysis, we construct quarterly rebalanced value-weighted portfolios. For each quarter t , we sort stocks into portfolios based on the change in values-oriented sentiment from quarter $t - 1$ to quarter t . We then study the performance of these portfolios in the subsequent quarter, $t + 1$. We assess performance using the portfolios' alpha in a Fama and French (2015) five-factor model, which includes the market (Mkt - RF), size (SMB), value (HML), profitability (RMW), and investment (CMA) factors. We obtain these factors from Kenneth French's website.

Results are in Table 8. We form portfolios by weighting stocks based on their market capitalization. In the first three columns, we sort stocks based on whether they experienced a negative change in values-oriented sentiment or whether they experienced a positive change. In the last three columns, we rank stocks according to their change in values-oriented sentiment. We then form portfolios of stocks in the first quintile and stocks in the fifth quintile. Results in columns 3 and 6 show the performance of long-short portfolios. In column 3, the portfolio is formed by buying stocks with positive changes in sentiment and shorting stocks with negative changes in sentiment. In column 6, the portfolio is formed by buying stocks in the fifth quintile of changes in sentiment and shorting stocks in the first quintile.

According to the results on long-short portfolios in columns 3 and 6, changes in sentiment are associated with worse stock performance in the future. The results are not only statistically significant but also economically meaningful. An investor that forms a value-weighted zero-investment portfolio by going long stocks with a positive change in sentiment and shorting stocks with negative changes in sentiment earns quarterly an alpha of -0.548%. Over the course of a year, this represents a risk-adjusted return of -2.2%. Estimates from other long-short portfolios in table 8 suggest annual risk-adjusted returns ranging from -0.5% to 1.6%.

[Insert Table 8 here]

5.2 FAMA AND MACBETH (1973) REGRESSIONS

In the next set of tests, we show that results on the predictive power of changes in sentiment on performance are robust to the inclusion of stock-level controls. Because various firm-level characteristics correlate with values-oriented sentiment and stock return, we control for them using Fama and Macbeth (1973) regressions.

We run Fama and Macbeth (1973) regressions of stock performance on lagged changes

in ESG sentiment and firm-level control variables as follows:

$$R_{it+1} = \gamma \Delta \text{ValuesSentiment}_{it} + \beta X_{it} + \epsilon_{it} \quad (5)$$

where the dependent variable R_{it} represents stock i 's performance in quarter $t + 1$. We use three different measures of stock performance: the stock's market-adjusted return, calculated as 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 $t + 1$; and five-factor alpha, calculated as the intercept in a five-factor regression of daily excess stock returns on daily returns of the Fama and French (2015) factors in quarter $t + 1$.

The main explanatory variable, $\Delta \text{ValuesSentiment}_{it}$, is the change in values-oriented sentiment from quarter $t - 1$ to quarter t for stock i . Values-oriented sentiment was defined in section 2.3, and we standardize $\Delta \text{ValuesSentiment}_{it}$ for ease of interpretation. The vector X_{it} includes characteristics for firm i in quarter t . These firm-level variables, defined in Table 1 in the appendix, include market-cap, book-to-market, ROA, leverage, CAPEX, institutional ownership, annual return, CAPM beta, return volatility, and ESG breadth. We adjust for potential autocorrelation and heteroskedasticity by employing Newey-West standard errors with a lag length of 3. The results are presented in Table 9.

We find that, regardless of the measure of performance we use, the coefficient on $\Delta \text{ValuesSentiment}_{it}$ is negative and statistically significant. In economic terms, this negative coefficient indicates that a one standard deviation increase in $\Delta \text{ValuesSentiment}_{it}$, equal to 2.55 bps, is associated with a decline in annual performance ranging from $6.7\text{bps} \times 4 = 26.8\%$ and $11.5 \times 4 = 46.0$ bps in terms of risk-adjusted returns.

[Insert Table 9 here]

Therefore, combining our results, we find robust evidence that firms deliver lower expected returns after experiencing an improvement in values-oriented sentiment. These findings are consistent with the notion that to fulfill their dual mandate, values-oriented investors need to trade off risk-adjusted performance for stakeholder welfare in their portfolio.

6 DYNAMIC ATTENTION ALLOCATION

Lastly, we further investigate the mechanism behind our results. If values-oriented funds rationally assess the trade-off between non-pecuniary values and financial performance,

the predictive power of changes in sentiments on returns and legal events should reflect the relative level of attention investors pay to non-pecuniary values.

To pursue their dual mandate, values-oriented investors need to acquire private information about firms' non-pecuniary values and future financial performance. If investors allocate attention rationally, they will shift attention toward non-pecuniary values when public information on a firm's values is more uncertain and when information on its financial performance is harder to assess. In these two cases, changes in values-oriented sentiment should be particularly predictive of worse future performance because values-oriented investors shift their attention to non-pecuniary values.

We proxy for uncertainty in the public information on a firm's non-pecuniary values using the dispersion of ESG ratings. For each month t and each firm i , we compute the standard deviations of the ratings provided by five of the most important ESG rating companies (KLD, MSCI, Refinitiv, Sustainalytics, and TVL). As we discussed in section 3.2, values-oriented funds appear to incorporate information from ESG ratings in placing their values-oriented bets. Therefore, the dispersion in ESG ratings proxies uncertainty in the public information available on a firm's non-pecuniary values. As described in section 2.1, we transform ratings into scores so that each ESG score is uniformly distributed over the $[0,100]$ interval.

We proxy for the difficulty in assessing information on the financial performance of a firm using the dispersion in the holdings of non-values-oriented active funds. Active funds specialize in acquiring information about the financial performance of stocks. If active funds disagree on the future financial performance of a stock, their holdings will reflect their disagreement.

To compute active disagreement for each active fund and for each quarter, we compare its holdings to the holdings of its active benchmark. We define the active benchmark as the portfolio formed by an AUM-weighted average of the holdings of all non-values-oriented active with the same style of the fund under consideration. For each stock i and each fund f in quarter t , we compute the difference between the weight of stock i in f 's portfolio and the weight of stock i in f 's active benchmark, obtaining a measure of the bet placed by fund f on stock i relative to funds with the same style. Then, for each quarter t and stock i , we compute the standard deviation of these bets, thus obtaining a measure of disagreement among active funds.

Using these two proxies for the incentives to acquire information on non-pecuniary values, for each quarter, we sort stocks based on whether the change in ESG-rating disagreement or active disagreement is below or above the median change in the quarter. We then investigate the predictive power of changes in sentiment on future performance

in these two groups. Specifically, we run Fama and Macbeth (1973) regressions like (5) for the two groups separately and test whether the predictive power of changes in values-oriented sentiment is strongest primarily from stocks experiencing an increase in the dispersion of ESG ratings or an increase in the dispersion in active holdings.

Results are in Table 10. In Panel A, we split the sample based on changes in the dispersion of ESG ratings. In Panel B, we split the sample based on changes in active-fund disagreement. In this section, we focus on the predictive power of changes in sentiment on financial performance.

Consistent with our hypotheses, we find that an increase in values-oriented sentiment is most predictive of future underperformance for stocks that experienced the largest increase in ESG-rating dispersion or active-investor disagreement. For stocks with the highest increase in ESG-rating dispersion, a one standard deviation increase in $\Delta Values Sentiment$, equal to 2.55 bps, is associated with an annual risk-adjusted annual performance ranging from $11.4 \text{ bps} \times 4 = 46.8 \text{ bps}$ to $15.4 \text{ bps} \times 4 = 61.6 \text{ bps}$, depending on the risk-adjustment one uses. For stocks with the highest increase in active-fund disagreement, a one standard deviation increase in $\Delta Values Sentiment$, equal to 2.55 bps, is associated with an annual risk-adjusted annual performance ranging from $10.4 \text{ bps} \times 4 = 41.8 \text{ bps}$ to $17.1 \text{ bps} \times 4 = 68.4 \text{ bps}$. Coefficients for stocks with higher levels of investor disagreement are 3.4 to 3.8 times larger than coefficients for stocks with low levels of investor disagreement.

Next, we test the predictive power of our firm-level variable of values sentiment on regulatory risk for high and low levels of uncertainty. The results are presented in Table 11. We show that our variable of interests, $\Delta Values Sentiment$, only predicts corporate misconduct and litigation risk with statistical power when the firm is dominated by either high levels of ESG rating disagreement or high levels of active fund disagreement.

[Insert Tables 10 and 11 here]

Therefore, our tests indicate that values-oriented funds allocate attention rationally to pursue their dual mandate. In particular, we show changes in sentiment best predict both future financial underperformance and corporate misconduct behavior and litigation risk when public uncertainty about a firm's corporate values is higher and when pecuniary information about the firm is harder to assess.

7 CONCLUSIONS

As investors increasingly focus on integrating non-pecuniary values into investment decisions, they face a trade-off between pursuing financial goals and pursuing ethical, en-

vironmental, or social objectives. With our research, we provide evidence investors correctly anticipate future information about companies' exposure to misconduct and controversies. However, they sacrifice performance to hold stocks with better corporate values.

By analyzing the revealed preferences of values-oriented investors through their portfolio holdings, we obtain a measure of the sentiment of values-oriented investors. This measure reflects these investors' perceptions of a company's non-pecuniary values. Using this measure of perceived corporate values, we show that values-oriented investors consider current and forward-looking information about corporate misconduct and controversies in their investment decisions. We also show that values-oriented investors sacrifice financial performance to align their portfolios with companies exhibiting better corporate values and lower legal risk.

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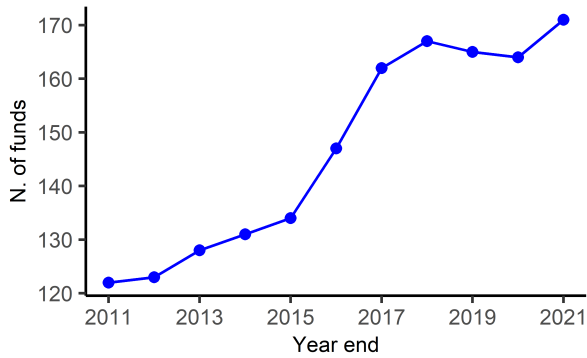
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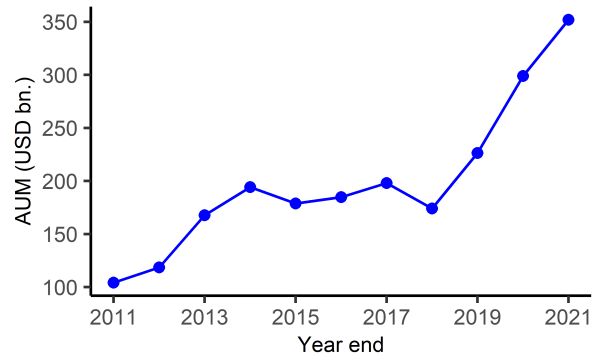
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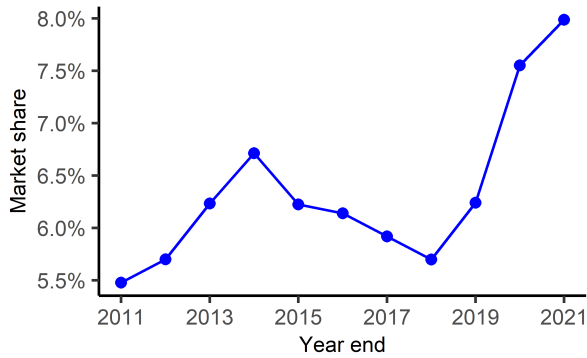
A FIGURES AND TABLES



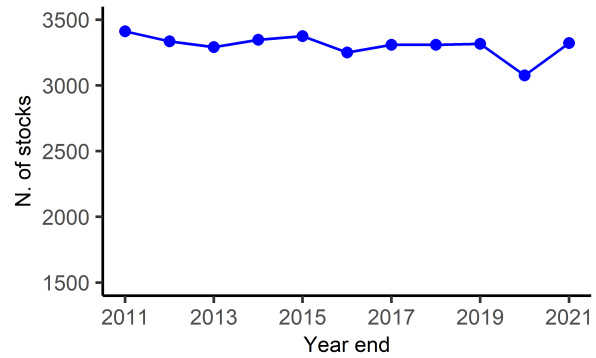
(a) Number of values-oriented funds



(b) AUM of values-oriented funds

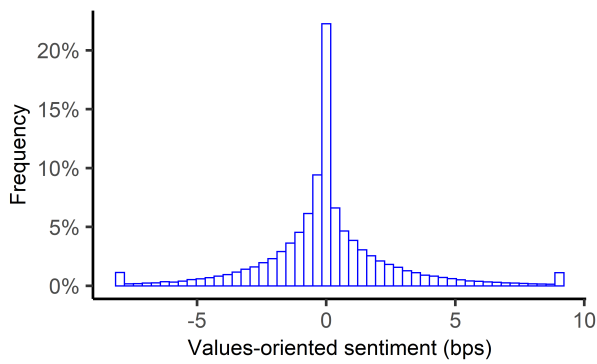


(c) Market share of values-oriented funds

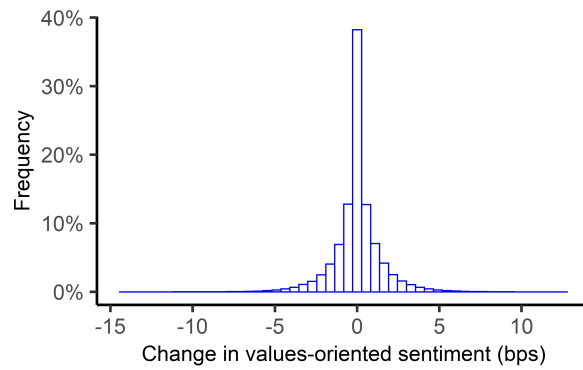


(d) Stocks held by values-oriented funds

Figure 1: Trends in values-oriented investing. The figures plot the number of values-oriented 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 values-oriented funds.



(a) Level of values-oriented sentiment



(b) Change in values-oriented sentiment

Figure 2: Distribution of levels and changes of values-oriented sentiment. Frequency distribution of the level of values-oriented sentiment and the quarterly changes in values-oriented sentiment in firm-quarter panel data. Sentiment is measured at the firm-quarter level. The change in sentiment is calculated as the quarter-to-quarter change in a firm's level of sentiment.

Table 1: Variable definitions

Variable	Definition
<i>Sentiment Variables</i>	
ValuesSentiment _{it}	Computed as the average of the values-oriented bets of values-oriented funds on stock <i>i</i> in quarter <i>t</i> . We define values-oriented sentiment in section 2.3
ΔValuesSentiment _{it}	Defined as the change between <i>t</i> – 1 and <i>t</i> in ValuesSentiment _{it} .
<i>Firm Variables</i>	
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 <i>t</i> – 12 to <i>t</i> – 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.
ValuesBreadth _{it}	Computed as the ratio of the number of ESG funds holding stock <i>i</i> to the total number of ESG funds active at date <i>t</i> .
<i>ESG Rating Variables</i>	
KLD Score _{it}	Defined as the sum of all the strengths minus all the concerns. Source: KLD.
MSCI Score _{it}	Defined as the MSCI ESG Intangible Value Assessment (UVA). Source: MSCI.
Refinitiv Score _{it}	Defined as the ESG Combined Score. Source: Refinitiv.
Sustainalytics Score _{it}	Defined as the the Sustainalytics Rank. Source: Sustainalytics.
TVL Score _{it}	Defined as the Insight Score. Source: TVL.
<i>Corporate Misconduct Variables</i>	
Misconduct _{i,t→s}	An indicator variable coded as 1 if the firm is involved in corporate misconduct in the quarters ranging from <i>t</i> to <i>s</i> . We select corporate misconduct classified as: “consumer-protection-related offenses”, “employment-related offenses”, “healthcare-related offenses”, “safety-related offenses”, “environment-related offenses”, “financial offenses”. We exclude cases related to private litigation. Source: Violation Tracker
Litigation _{i,t→s}	An indicator variable coded as 1 if the firm is involved in civil litigation in the quarters ranging from <i>t</i> to <i>s</i> . We select corporate lawsuits as any lawsuit classified as: “environment lawsuit”, “labor lawsuit”, “consumer lawsuit”, “governance lawsuit”. We manually classify corporate lawsuits in those four categories. Source: Lequity

Table 2: Summary Statistics

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 1 of the Appendix.

	Mean	SD	P10	P50	P90	Observations
ValuesSentiment (bps)	-0.00	2.55	-2.72	-0.03	2.79	99,416
Δ ValuesSentiment (bps)	0.00	1.42	-1.45	0.00	1.46	99,416
Total Assets (log \$)	7.93	1.75	5.73	7.85	10.21	99,416
Market Cap (log \$)	7.86	1.61	5.85	7.73	10.03	94,872
Book-to-Market (%)	49.63	46.96	9.66	41.32	99.40	99,416
ROA (%)	0.43	4.67	-2.20	0.76	3.33	99,416
Return Volatility (%)	23.55	22.64	0.00	19.93	51.74	99,416
CAPEX (%)	0.86	1.27	0.01	0.49	2.02	99,416
Institutional Ownership (%)	62.45	33.26	0.00	75.19	94.49	99,416
Annual Return (%)	18.33	65.15	-26.18	11.20	61.66	99,416
CAPM Beta	1.18	0.63	0.49	1.09	1.95	99,416
Return Volatility (%)	2.33	1.36	1.11	1.96	3.99	99,416
ValuesBreadth (%)	5.35	4.80	1.29	4.00	11.11	99,416

Table 3: Values-Oriented Sentiment and Firm-Level Characteristics

This table shows the relation between values-oriented sentiment and contemporaneous firm characteristics. The dependent variable, $ValuesSentiment_{it}$, is computed as the average values-oriented bet of values-oriented funds on stock i in quarter t , as described in section 2.3. 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 1 of the Appendix.

	ValuesSentiment _{it}		
	(1)	(2)	(3)
Total Assets _{it}	-0.552*** (-11.79)	-0.572*** (-11.86)	-0.729*** (-13.35)
Book-to-Market _{it}	0.206*** (6.10)	0.222*** (6.12)	0.135*** (4.39)
ROA _{it}	-0.049*** (-3.38)	-0.045*** (-3.22)	-0.068*** (-3.94)
Leverage _{it}	0.106*** (3.09)	0.101*** (2.92)	0.118*** (3.23)
CAPEX _{it}	-0.066*** (-2.91)	-0.057** (-2.49)	-0.026 (-0.90)
Institutional Ownership _{it}	0.007 (0.33)	0.011 (0.48)	0.019 (0.79)
Annual Return _{it}	-0.043*** (-2.63)	-0.046** (-2.49)	-0.059*** (-2.91)
CAPM Beta _{it}	0.035 (1.43)	0.043* (1.76)	0.063** (2.51)
Return Volatility _{it}	-0.070*** (-4.90)	-0.083*** (-4.34)	0.016 (0.72)
ValuesBreadth _{it}	0.624*** (8.16)	0.652*** (8.09)	0.779*** (9.04)
Time FE		Yes	Absorbed
Time x Industry FE			Yes
Observations	99,416	99,416	99,416
Adjusted R ²	0.042	0.043	0.070

Table 4: Values-Oriented Sentiment and ESG Ratings

This table shows the relation between values-oriented sentiment and contemporaneous ESG Ratings. Panel A shows correlations between a firm’s values-oriented sentiment and the firm’s ESG Ratings. Panel B shows the results of panel regressions of values-oriented sentiment on ESG ratings and firm characteristics. The dependent variable, $ValuesSentiment_{it}$, is computed as the average values-oriented bet of values-oriented funds on stock i in quarter t , as described in section 2.3. 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 1 of the Appendix.

Panel A: Correlation						
	ESG Sentiment $_{it}$	KLD Score $_{it}$	MSCI Score $_{it}$	Refinitiv Score $_{it}$	Sustainalytics Score $_{it}$	TVL Score $_{it}$
ESG Sentiment $_{it}$	1.000					
KLD Score $_{it}$	0.031***	1.000				
MSCI Score $_{it}$	0.113***	0.373***	1.000			
Refinitiv Score $_{it}$	0.058***	0.492***	0.370***	1.000		
Sustainalytics Score $_{it}$	0.043***	0.354***	0.272***	0.427***	1.000	
TVL Score $_{it}$	0.048***	0.046***	0.129***	0.037***	0.025***	1.000

Panel B: Multivariate Analysis						
	ValuesSentiment $_{it}$					
	(1)	(2)	(3)	(4)	(5)	(6)
KLD Score $_{it}$	0.102** (2.18)					-0.068 (-1.12)
MSCI Score $_{it}$		0.187*** (4.63)				0.163*** (2.89)
Refinitiv Score $_{it}$			0.249*** (5.05)			0.242*** (3.51)
Sustainalytics Score $_{it}$				0.331*** (4.27)		0.184* (1.88)
TVL Score $_{it}$					0.071*** (2.84)	0.043 (1.17)
Firm Characteristics $_{it}$	Yes	Yes	Yes	Yes	Yes	Yes
Time x Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	85,261	79,522	74,449	70,581	83,926	45,963
Adjusted R^2	0.098	0.101	0.113	0.110	0.095	0.140

Table 5: Values-Oriented Sentiment and Past Legal Events

This table shows the relation between values-oriented sentiment and past corporate misconduct and litigation. The dependent variable, $ValuesSentiment_{it}$, is computed as the average values-oriented bet of values-oriented funds on stock i in quarter t , as described in section 2.3. All independent variables are expressed in units of standard deviation. In the first three columns, the independent variable $Misconduct_{i,t-3 \rightarrow t}$ is an indicator taking the value of one if the firm was fined by a state or federal agency in the four quarters leading up and including to quarter t . In the last three columns, the main independent variable $Litigation_{i,t-3 \rightarrow t}$ is an indicator taking the value of one if the firm was 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 1 of the Appendix.

	ValuesSentiment _{it}					
	(1)	(2)	(3)	(4)	(5)	(6)
Misconduct _{it}	-0.110*** (-3.45)	-0.107*** (-3.33)	-0.128*** (-4.01)			
Litigation _{it}				-0.026*** (-3.24)	-0.103*** (-3.04)	-0.071** (-2.18)
Total Assets _{it}	-0.518*** (-11.39)	-0.538*** (-11.47)	-0.683*** (-12.80)	-0.110*** (-9.45)	-0.540*** (-11.43)	-0.703*** (-13.00)
Book-to-Market _{it}	0.204*** (6.07)	0.219*** (6.09)	0.132*** (4.33)	0.041*** (5.63)	0.215*** (6.12)	0.131*** (4.35)
ROA _{it}	-0.049*** (-3.40)	-0.045*** (-3.22)	-0.071*** (-4.15)	-0.008** (-2.39)	-0.045*** (-3.23)	-0.069*** (-4.02)
Leverage _{it}	0.111*** (3.20)	0.105*** (3.04)	0.117*** (3.20)	0.024*** (3.09)	0.105*** (3.11)	0.118*** (3.27)
CAPEX _{it}	-0.052** (-2.34)	-0.044** (-1.96)	-0.023 (-0.83)	-0.012** (-2.00)	-0.051** (-2.25)	-0.025 (-0.87)
Institutional Ownership _{it}	0.014 (0.66)	0.018 (0.78)	0.025 (1.04)	0.002 (0.47)	0.014 (0.62)	0.021 (0.88)
Annual Return _{it}	-0.044*** (-2.66)	-0.046** (-2.52)	-0.059*** (-2.95)	-0.009*** (-2.66)	-0.046** (-2.53)	-0.059*** (-2.94)
CAPM Beta _{it}	0.038 (1.56)	0.046* (1.86)	0.064** (2.55)	0.009 (1.63)	0.042* (1.73)	0.061** (2.45)
Return Volatility _{it}	-0.072*** (-5.06)	-0.082*** (-4.31)	0.016 (0.71)	-0.015*** (-4.80)	-0.082*** (-4.32)	0.015 (0.67)
ValuesBreadth _{it}	0.634*** (8.17)	0.660*** (8.10)	0.786*** (9.04)	0.126*** (6.89)	0.667*** (8.30)	0.787*** (9.15)
Time FE		Yes	Absorbed		Yes	Absorbed
Time x Industry FE			Yes			Yes
Observations	99,416	99,416	99,416	99,416	99,416	99,416
Adjusted R ²	0.044	0.045	0.091	0.043	0.045	0.090

Table 6: Changes in Values-Oriented Sentiment and Future Misconduct

This table shows the relation between changes in values-oriented sentiment and future corporate misconduct. $\Delta \text{ValuesSentiment}_{it}$ is the change in values-oriented sentiment 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, labor, consumer protection, and financial violations in quarters $t+1$ through $t+4$. 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 1 of the Appendix.

Panel A: All Misconduct Categories				
	Misconduct $_{i,t+1 \rightarrow t+4}$			
	(1)	(2)	(3)	
$\Delta \text{ValuesSentiment}_{it-2}$			-0.349*** (-2.74)	
$\Delta \text{ValuesSentiment}_{it-1}$			-0.377** (-2.51)	
$\Delta \text{ValuesSentiment}_{it}$	-0.297*** (-3.18)	-0.239*** (-2.62)	-0.428*** (-2.89)	
$\Delta \text{ValuesSentiment}_{it+1}$			-0.199 (-1.39)	
$\Delta \text{ValuesSentiment}_{it+2}$			-0.170 (-1.39)	
Firm Characteristics $_{it}$	Yes	Yes	Yes	
Time FE	Yes	Absorbed	Absorbed	
Time x Industry FE		Yes	Yes	
Observations	96,921	96,921	81,983	
Adjusted R^2	0.164	0.290	0.294	

Panel B: Specific Misconduct Categories				
	Misconduct $_{i,t+1 \rightarrow t+4}$ by category			
	Environment (1)	Labor (2)	Consumers (3)	Financial (4)
$\Delta \text{ValuesSentiment}_{it}$	-0.111* (-1.89)	-0.121* (-1.65)	-0.056 (-1.17)	-0.021 (-0.73)
Firm Characteristics $_{it}$	Yes	Yes	Yes	Yes
Time x Industry FE	Yes	Yes	Yes	Yes
Observations	96,921	96,921	96,921	96,921
Adjusted R^2	0.116	0.229	0.183	0.065

Table 7: Changes in Values-Oriented Sentiment and Future Litigation

This table shows the relation between changes in values-oriented sentiment and future civil litigation. $\Delta ValuesSentiment_{it}$ is the change in values-oriented sentiment 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, labor, consumer protection, and financial matters in quarters $t + 1$ through $t + 4$. 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 1 of the Appendix.

Panel A: All Lawsuit Categories			
	Litigation $_{i,t+1 \rightarrow t+4}$		
	(1)	(2)	(3)
$\Delta ValuesSentiment_{it-2}$			-0.349*** (-2.96)
$\Delta ValuesSentiment_{it-1}$			-0.267** (-1.98)
$\Delta ValuesSentiment_{it}$	-0.327*** (-3.72)	-0.268*** (-3.08)	-0.459*** (-3.16)
$\Delta ValuesSentiment_{it+1}$			-0.120 (-0.83)
$\Delta ValuesSentiment_{it+2}$			0.100 (0.79)
Firm Characteristics $_{it}$	Yes	Yes	Yes
Time FE	Yes	Absorbed	Absorbed
Time x Industry FE		Yes	Yes
Observations	96,921	96,921	81,983
Adjusted R^2	0.181	0.229	0.232

Panel B: Specific Lawsuit Categories				
	Litigation $_{i,t+1 \rightarrow t+4}$ by category			
	Environment (1)	Labor (2)	Consumers (3)	Financial (4)
$\Delta ValuesSentiment_{it}$	-0.210*** (-3.40)	-0.310*** (-3.87)	-0.098 (-1.49)	-0.038 (-0.60)
Firm Characteristics $_{it}$	Yes	Yes	Yes	Yes
Time x Industry FE	Yes	Yes	Yes	Yes
Observations	96,921	96,921	96,921	96,921
Adjusted R^2	0.111	0.169	0.153	0.089

Table 8: Changes in Values-Oriented Sentiment and Future Stock Performance: Quarterly-Rebalanced Portfolios

This table shows estimates from factor regressions using quarterly value-weighted portfolio and factor returns. The dependent variables are excess returns of portfolios formed based on changes in sentiment. The factors are the five Fama and French (2015) factors. At the end of each quarter t , we sort stocks into portfolios using changes in values-oriented sentiment from quarter $t - 1$ to t . We then consider the portfolios' returns in quarter $t + 1$. We consider portfolios of stocks with negative changes in values-oriented sentiment (column 1), portfolios of stocks with positive changes in values-oriented sentiment (column 2), long-short portfolios that buy stocks with positive changes in values-oriented sentiment and short stocks with negative changes in values-oriented sentiment (column 3), portfolios of stocks in the bottom quintile by changes in values-oriented sentiment (column 4), portfolios of stocks in the top quintile by changes in values-oriented sentiment (column 5), and long-short portfolios that buy stocks in the top quintile by changes in values-oriented sentiment and short stocks in the bottom quintile by changes in values-oriented sentiment (column 6). Returns are expressed as percentages. The sample period runs from 2011 to 2022. t -statistics based on heteroskedasticity-robust standard errors are reported in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively. All variables are defined in Table 1 of the Appendix.

	Excess Returns in Quarter $t + 1$ of Portfolios Sorted by $\Delta \text{ValuesSentiment}_{it}$					
	Neg. - RF (1)	Pos. - RF (2)	Pos. -Neg. (3)	Q1 - RF (4)	Q5 - RF (5)	Q5 - Q1 (6)
Alpha	1.294 (1.48)	0.746 (0.81)	-0.548*** (-3.60)	1.450 (1.37)	1.112 (0.97)	-0.339** (-2.17)
$\text{Mkt}_{t+1} - \text{RF}_{t+1}$	0.282 (1.36)	0.213 (0.99)	-0.069* (-1.98)	0.357 (1.43)	0.300 (1.15)	-0.057 (-1.63)
SMB_{t+1}	0.121 (0.24)	0.271 (0.55)	0.151** (2.11)	0.205 (0.36)	0.316 (0.53)	0.111 (1.47)
HML_{t+1}	-0.086 (-0.28)	-0.112 (-0.37)	-0.027 (-0.63)	-0.213 (-0.59)	-0.212 (-0.56)	0.001 (0.03)
RMW_{t+1}	-0.246 (-0.58)	-0.178 (-0.43)	0.067 (0.72)	0.042 (0.09)	0.108 (0.22)	0.066 (1.01)
CMA_{t+1}	-0.067 (-0.10)	0.218 (0.32)	0.285*** (2.97)	-0.018 (-0.02)	0.048 (0.06)	0.065 (0.71)
N. Quarters	44	44	44	44	44	44
Adjusted R^2	0.085	0.075	0.255	0.076	0.065	0.114

Table 9: Changes in Values-Oriented Sentiment and Future Stock Performance: Fama and Macbeth (1973) Regressions

This table shows estimates from Fama and Macbeth (1973) regressions of stock performance on lagged changes in values-oriented sentiment 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), and quarterly five-factor alpha (column 6), for which we used the five Fama and French (2015) factors. Quarterly alphas are estimated from daily returns in the quarter. All returns are expressed as percentages. $\Delta ValuesSentiment_{it}$ is the change in values-oriented sentiment 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 1 of the Appendix.

	Market-Adjusted Return $_{it+1}$ (1)	CAPM Alpha $_{it+1}$ (2)	Five-Factor Alpha $_{it+1}$ (3)
$\Delta ESG\ Sentiment_{it}$	-0.115*** (-3.63)	-0.088** (-2.61)	-0.067** (-2.13)
Size $_{it}$	-0.185 (-1.25)	-0.049 (-0.31)	-0.134 (-1.01)
Book-to-Market $_{it}$	0.186 (0.28)	0.190 (0.28)	0.507* (1.94)
ROA $_{it}$	28.184*** (6.80)	28.497*** (6.54)	20.556*** (6.72)
Leverage $_{it}$	0.403 (0.55)	1.085 (1.39)	1.034* (1.93)
CAPEX $_{it}$	-22.301 (-1.33)	-26.069 (-1.56)	-19.999 (-1.47)
Institutional Ownership $_{it}$	0.931*** (6.75)	0.814*** (4.83)	0.564*** (2.75)
CAPM Beta $_{it}$	-0.013 (-0.02)	-0.860* (-1.81)	-0.579 (-1.66)
Annual Return $_{it}$	-0.024 (-0.06)	-0.111 (-0.27)	-0.037 (-0.14)
Return Volatility $_{it}$	22.544 (0.79)	-28.674 (-1.47)	25.605* (1.86)
ESG Breadth $_{it}$	1.570 (0.88)	-1.324 (-0.65)	-5.000** (-2.17)
Observations	99,506	99,506	99,506
Adjusted R^2	0.073	0.063	0.029

Table 10: Attention Allocation: Future Stock Performance and Disagreement

This table shows estimates from Fama and Macbeth (1973) regressions of stock performance on lagged changes in values-oriented sentiment and firm characteristics for subsamples defined based on changes in disagreement among ESG ratings or active funds. In Panel A, we classify firm i in quarter t into the Low (High) subsample if the change in rating disagreement for firm i from quarter $t - 1$ to t is below (above) the median change in ESG rating disagreement in that quarter. In Panel B, we classify firm i in quarter t into the Low (High) subsample if the change in active disagreement for firm i from quarter $t - 1$ to t is below (above) the median change in active disagreement in that quarter. 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), and quarterly five-factor alpha (column 6), for which we used the five Fama and French (2015) factors. Quarterly alphas are estimated from daily returns in the quarter. All returns are expressed as percentages. $\Delta \text{ValuesSentiment}_{it}$ is the change in values-oriented sentiment from quarter $t - 1$ to quarter t for firm i and is expressed in units of standard deviations. 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 1 of the Appendix.

Panel A: Low vs. High Change in ESG Rating Disagreement

	Market-Adjusted Return $_{it+1}$		CAPM Alpha $_{it+1}$		Five-Factor Alpha $_{it+1}$	
	Low (1)	High (2)	Low (3)	High (4)	Low (5)	High (6)
$\Delta \text{ValuesSentiment}_{it}$	-0.089* (-1.72)	-0.154*** (-3.92)	-0.076 (-1.46)	-0.117*** (-2.82)	-0.028 (-0.59)	-0.123*** (-2.91)
Firm Characteristics $_{it}$	Yes	Yes	Yes	Yes	Yes	Yes
Observations	49,823	49,683	49,823	49,683	49,823	49,683
Adjusted R^2	0.088	0.098	0.075	0.083	0.040	0.041

Panel B: Low vs. High Change in Active Fund Disagreement

	Market-Adjusted $_{it+1}$		CAPM Alpha $_{it+1}$		Five-Factor Alpha $_{it+1}$	
	Low (1)	High (2)	Low (3)	High (4)	Low (5)	High (6)
$\Delta \text{ValuesSentiment}_{it}$	-0.050 (-1.11)	-0.171*** (-3.48)	-0.035 (-0.71)	-0.137*** (-2.96)	-0.027 (-0.54)	-0.104** (-2.40)
Firm Characteristics $_{it}$	Yes	Yes	Yes	Yes	Yes	Yes
Observations	49,744	49,762	49,744	49,762	49,744	49,762
Adjusted R^2	0.102	0.086	0.088	0.075	0.046	0.037

Table 11: Attention Allocation: Future Legal Risk and Disagreement

This table shows the relation between changes in values-oriented sentiment and future corporate misconduct or litigation for subsamples defined based on changes in disagreement among ESG ratings or active funds. In Panel A, we classify firm i in quarter t into the Low (High) subsample if the change in rating disagreement for firm i from quarter $t - 1$ to t is below (above) the median change in ESG rating disagreement in that quarter. In Panel B, we classify firm i in quarter t into the Low (High) subsample if the change in active disagreement for firm i from quarter $t - 1$ to t is below (above) the median change in active disagreement in that quarter. $\Delta \text{ValuesSentiment}_{it}$ is the change in values-oriented sentiment from quarter $t - 1$ to quarter t for firm i , and it is expressed in units of standard deviation. In columns 1 and 2, the dependent variable, $\text{Misconduct}_{i,t+1 \rightarrow t+4}$, 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 3 and 4, the dependent variable, $\text{Litigation}_{i,t+1 \rightarrow t+4}$, 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. 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 1 of the Appendix.

Panel A: Low vs. High Change in ESG Rating Disagreement

	Misconduct $_{i,t+1 \rightarrow t+4}$		Litigation $_{i,t+1 \rightarrow t+4}$	
	Low (1)	High (2)	Low (3)	High (4)
$\Delta \text{ValuesSentiment}_{it}$	-0.171 (-1.03)	-0.252* (-1.78)	-0.249 (-1.50)	-0.274* (-1.81)
Firm Characteristics $_i$	Yes	Yes	Yes	Yes
Time FE	Absorbed	Absorbed	Absorbed	Absorbed
Time x Industry FE	Yes	Yes	Yes	Yes
Observations	48,450	48,298	48,450	48,298
R^2	0.315	0.330	0.249	0.274

Panel B: Low vs. High Change in Active Fund Disagreement

	Misconduct $_{i,t+1 \rightarrow t+4}$		Litigation $_{i,t+1 \rightarrow t+4}$	
	Low (1)	High (2)	Low (3)	High (4)
$\Delta \text{ValuesSentiment}_{it}$	-0.041 (-0.25)	-0.320** (-2.03)	-0.159 (-1.00)	-0.309* (-1.91)
Firm Characteristics $_i$	Yes	Yes	Yes	Yes
Time FE	Absorbed	Absorbed	Absorbed	Absorbed
Time x Industry FE	Yes	Yes	Yes	Yes
Observations	48,375	48,361	48,361	48,375
R^2	0.148	0.144	0.268	0.257