

INTERNET APPENDIX

Supplement to Manuscript “Do Employees Have Useful Information about Firms’ ESG Practices?”

IA1: Sample construction and merging across datasets.

The dataset includes 7,851 US-headquartered companies with at least 100 Glassdoor reviews as of July 2020. Each firm on Glassdoor has a unique ID, which is matched to other databases using firms’ tickers and names. This process results in 1,780 firms with unique stock tickers. For firms without unique tickers, fuzzy matching based on names is conducted using the matchit package in Stata, removing common string patterns (e.g., Inc., Co., Limited) to improve quality. Matches are manually verified, keeping only those with above 95% similarity. In cases of multiple CUSIP matches, the firm with the highest total assets is retained.

Firm-year data is also matched with the MSCI KLD dataset using tickers and names. About 70% of US firms in the MSCI dataset during 2008-2018 have unique tickers, allowing for exact matches with the Glassdoor-Compustat dataset. For the remaining 30% and those without a ticker match, fuzzy matching is performed using the matchit package, again removing common string patterns. Matches are manually verified, with a cutoff of 89% similarity due to high matching quality observed up to that point.

IA2: Variable description

This table shows detailed description for variables used in my analyses. All variables are at the firm-year level. All scaled variables are winsorized at the 1st and 99th percentiles.

Variable	Definition	Source
No. of reviews	The number of reviews per firm-year	Glassdoor
Inside view (E, S, or G)	At the review level, it is the percentage of environmental, social, or governance key words in the pros section minus the percentage of environmental, social, or governance key words in the cons section in the review, respectively; Averaging this measure across all reviews in a firm-year gives the inside view (E, S, or G) at the firm-year level.	Glassdoor
MSCI (rating E, S, or G)	The number of environmental (E), social (S), or governance (G) strengths minus the number of E, S, or G concerns per firm-year, scaled by the sum of strengths and concerns per category. When no strengths or concerns are recorded, the measure is set to zero if the firm has a record in the MSCI database that year, but set to missing otherwise.	MSCI (KLD)
BRT	An indicator equaling 1 for firms whose CEOs signed the Business Roundtable statement in 2019	BRT website
UNGC	An indicator equaling 1 for firm-years during which a firm is a member of the UN Global Compact	UNGC website
Level of emissions	CO2-equivalent missions (20 years horizon) estimated by Climate Trace based on satellite imagery, aggregated to the parent firm-year level using ownership fraction as the weight. The value is set to zero if missing.	Climate Trace
Emissions Intensity	The level of emissions scaled by total assets.	Climate Trace
Fortune Best Companies indicator	An indicator equaling one if a firm belongs to Fortune's Best 100 Companies to Work For in a year	Alex Edman's website
Best Diversity indicator	Indicator equaling one for firms on the Best Companies for Diversity list in different years, zero otherwise.	Fortune Magazine
Number of IC weaknesses	The number of internal control weaknesses a firm's auditor reports about the firm in a year.	Audit Analytics
Number of IC weaknesses	The number of internal control weaknesses reported by a firm's auditor in a year	Audit Analytics
Misstatement risk	the probability of the firm's having a material accounting error in a year, estimated from its accounting numbers and market conditions in that year using a machine learning model as in Bertomeu et al. (2021)	Bertomeu et al. (2021)'s website
Number of shareholder activism filings	The number of Forms 13D filed with a firm in a year for which Audit Analytics classifies as concern, dispute, control, or discussion (following Klein and Zur (2009), Guo et al. (2021))	Audit Analytics
Yearly buy-and-hold return	Stock return for a firm during a calendar year.	CRSP
Downside volatility	The standard deviation of daily returns that are negative in year for a firm's stock	CRSP
Tail risk	The average absolute value of the 5% lowest daily returns in a year for a firm's stock	CRSP
Size (log assets)	Logarithm of a firm's total assets in millions, the latest accounting number available in a year	Compustat

Variable	Definition	Source
Tobin's Q	(total assets + market value of equity – total common equity – deferred taxes)/total assets; or (at-ceq-txdite+mkvalt)/at	Compustat
ROA (return on assets)	EBITDA/lagged assets	Compustat
Leverage	Total liabilities over total assets; or lt/at	Compustat
R&D	Research and Development expense (xrd) over total assets, and zero if missing xrd.	Compustat
Sale growth	The change in the logarithm of a firm's net sales in a year relative to its lag	Compustat
Institutional Ownership	The sum of dollar value of institutional ownership, divided by the sum of market value across securities per firm-year	Thomson Reuters 13F
High institutional ownership	An indicator equaling one if a firm has an above-sample-median institutional ownership in a year and zero otherwise.	Thomson Reuters 13F
High analyst coverage	An indicator equaling one if a firm has an above-sample-median analyst coverage in a year and zero otherwise; where analyst coverage is the number of unique analysts making at least one earnings forecast for the firm in that year.	I/B/E/S
High complexity	An indicator equaling one if a firm has an above-sample-median complexity score in a year and zero otherwise; where the complexity score is the first factor in a factor analysis of business segments, natural logarithm of sales, and leverage (see Coles, Daniel, and Naveen, 2008).	Compustat; Compustat Segments
High advertising intensity	An indicator equaling one if a firm has an above-sample-median advertising over sales in a year and zero otherwise; firm-years with missing advertising data is assumed to have zero advertising.	Compustat
High COVID exposure	An indicator equaling one if a firm belongs to a NAICS-3-digit industry with a COVID exposure score above median across industries; where the COVID exposure score is the communication_interact_share score provided by Koren and Peto (2020).	Koren and Peto (2020)
Public sent. E(SG)	Public sentiment of a firm's E(S, or G) practices in a given year. The sentiment is measured by an algorithm that reads through all sentences across over 6,000 news and social media sources to identify mentions of individual firms on different issues, classified into E, S, or G topics.	LSEG Market Psych

IA3: Glassdoor review data

This appendix has two panels. Panel A shows an example of a Glassdoor review. Panel B shows the types of employers with at least one review on Glassdoor as of July 25, 2020.

Panel A: example review of Amazon



"Hit or miss"

3.0 ★ ★ ★ ★ ★ ▼ Current Employee - Delivery Driver in Austin, TX

Work/Life Balance
★ ★ ★ ★ ★

Culture & Values
★ ★ ★ ★ ★

Diversity & Inclusion
★ ★ ★ ★ ★

Career Opportunities
★ ★ ★ ★ ★

Compensation and Benefits
★ ★ ★ ★ ★

Senior Management
★ ★ ★ ★ ★

☒ Recommends ☒ Positive Outlook ☒ Approves of CEO

I have been working at Amazon full-time

Pros
The atmosphere is overall pretty good.

Cons
Long hours, management not on the same page. Cut corners as far as safety is concerned.

Advice to Management
Please listen to employees ideas more.

Panel B: Types of employers reviewed on Glassdoor

	At least 1 review	At least 10 reviews
Company - Private	197,992	58,834
Company - Public	31,131	9,804
Nonprofit	19,853	6,221
Subsidiary/Segment	8,205	4,835
Government	7,235	2,560
Private Practice	6,508	1,088
School	5,592	1,271
College	3,790	2,629
Contract	3,464	594
Franchise	3,020	852
Hospital	2,614	1,253
Self-employed	1,127	88
Other Organization	4,470	829
Unknown	6,550	1,105
Total	301,551	91,963

IA4: Training the word2vec model.

Before feeding reviews into the word2vec model, several preprocessing steps are applied to clean the raw data. Reviews are converted to lower-case, punctuations removed, and transformed into lists of individual words. Lemmatization is applied to convert words to their standard dictionary forms. Using Spacy, digits and stop words (e.g., a, an, the, too, all) are removed. Commonly used two-word phrases (bigrams) are identified using the Phraser module from the Genism library, with phrases retained if they appear at least 50 times in all reviews. These steps follow Li et al. (2021) , but only bigrams are modeled to reduce computational costs.

The word2vec model is trained on 10.4 million English reviews, each containing pro and con sections, resulting in 20.8 million text units. Default word2vec settings are used, except the vector size is set to 300 and the number of training iterations (epochs) to 20, as in Li et al. (2021).

The word2vec model is used to classify employees into high-ranked and low-ranked categories in one robustness test. Employees are classified based on the similarity of their titles to lists of high-ranked and low-ranked job titles from Glassdoor's official guide. C-suite and manager titles are grouped into the high-ranked list, while individual contributors and entry-level titles are in the low-ranked list. Titles are transformed into bigrams or unigrams, keeping only those in the word2vec vocabulary. The average vector representing words in each list is compared to determine if an employee's title indicates a high rank. If a title is anonymous or unknown, the employee is deemed low-ranked. It is found that 17% of reviews were written by high-ranked employees. Removing these reviews changes the inside view measure little, with a resulting correlation above 0.93 with the baseline measure.

IA5: Employees' attention to ESG issues over time.

The recent rise in ESG investing has led employees to mention ESG catchphrases more frequently over time. Figure IA2a illustrates this trend, showing a significant increase in the frequency of terms like ESG, CSR, sustainable, and sustainability between 2008 and 2021. The word ESG itself did not appear in employee reviews until 2015.

However, employees' overall attention to ESG issues, as captured by comprehensive ESG dictionaries, has remained stable over time. Many ESG concerns, such as employee treatment and business ethics, have likely always been important to employees regardless of investor interest. Figure IA2b confirms this stability. An alternative story might be that the ESG dictionaries over-represent earlier period ESG words,

flattening the trend. Yet, training the model on reviews from 2015-2021 shows a 94% overlap with baseline dictionaries, implying stable attention to ESG.

Employees' attention spiked around major ESG events. Attention to environmental issues peaked in 2008 during Barrack Obama's election and in 2015 with the signing of the Paris Agreement. Social issues saw spikes in 2020 due to the Global Pandemic and George Floyd's death, leading to racial protests. Governance attention peaked during the 2008 Financial Crisis and the 2020 Pandemic. Unreported graphs with higher frequency zoom-ins show ESG attention aligning with these events' timings.

IA6: An inside view of a narrower ESG issue: emissions, harassment, or diversity and inclusion

To measure employees' inside view on any ESG subtopic, such as emissions, harassment, diversity and inclusion, we follow the baseline measurement of the broader E, S, or G category.

For example, on diversity and inclusion (D&I) practices, the steps for measuring the inside view are as follows, with some modifications. The seed words for the D&I topic include diversity, inclusion, discrimination, inequality, and related terms such as diverse, inclusive, and discriminating. The main results remain unchanged if discrimination, inequality, and their related words are omitted, or if seed word lists for D&I and discrimination/inequality are kept separate.

The seed word list for each ESG topic has 50 words, so the D&I seed word list is expanded to 50 similar words using Google's pretrained word2vec model on a news dataset. From this expanded list, the word2vec model trained on 10.4 million employee reviews identifies the top 500 most similar words to form the final D&I dictionary. Using this dictionary, D&I words in reviews are counted, and the average D&I word frequency in the pros vs. the cons sections across reviews per firm-year is calculated to measure the D&I inside view. The correlation between the D&I inside view and D&I ratings from Refinitiv and MSCI is found to be low, at 0.19 and 0.10, respectively.

The process for constructing the inside view measure on harassment and emissions are similar. The only difference is that the seed words for harassment include *harassment* and *workplace harassment*, and the seed words for emissions are *emissions*, *carbon emissions*, and *toxic emissions*.

IA7: ESG inside view measurement with Generative AI

As a robustness check, we construct ESG inside view measures using Generative AI. Specifically, we use OpenAI's gpt-4o-mini model to analyze employee reviews and assess whether they indicate that a firm is performing well or poorly on environmental (E), social (S), and governance (G) dimensions. We provide the model with detailed ESG definitions and prompt it to return structured outputs identifying whether each category is mentioned positively or negatively, along with specific keywords cited in support.

We select the gpt-4o-mini model, rather than the full gpt-4o model, because it is significantly more cost-effective – approximately five times cheaper – and computationally faster by roughly an order of magnitude. However, this comes with tradeoffs. The smaller model is less advanced and more prone to shortcuts. For example, we find that it occasionally classifies phrases like “good environment” as positive signals in the environmental category, even though they refer to workplace atmosphere rather than environmental impact. We test this behavior and confirm it occurs despite our prompt explicitly discouraging such misclassifications.

Due to the high cost of using generative AI on scale, we limit our analysis to approximately 2.4 million reviews in our main sample, as opposed to the 10.4 million reviews. Even with the mini model, processing this smaller sample takes several days and incurs API costs in the thousands of dollars (as of early 2025 pricing). We run the code using asynchronous Python calls and store results in an SQLite database, with concurrency and write-ahead logging enabled for efficiency. Batches are processed in parallel with retries for failures, allowing us to work through server limitations without halting the full task.

Following the literature, we set temperature = 0 to limit randomness and increase replicability. Despite this, we still observe occasional variation in responses to the same input when submitted at different times or on different days. To further reduce variability, we set top_p = 0 and seed = 42. This helps by constraining the model to select only the highest-probability tokens and by fixing the randomization seed across runs. Nevertheless, some randomness remains, likely due to non-deterministic elements in the model architecture or server-side variability beyond user control. In addition, the OpenAI API experienced periodic disruptions, typically once or twice per week, which caused some batch failures. Our code is designed to recover from such interruptions without affecting the remaining batches, and we ultimately achieve a completion rate of over 95 percent for the sample. The remaining less than 5 percent of reviews are unprocessed due to server timeouts or connectivity issues. Given the high cost and long processing time,

we do not attempt to further increase coverage. We acknowledge that this may result in a loss of information.

We reproduce below the exact prompt submitted to the model for each review. Note that in this prompt, we provide exact definitions of E, S, and G categories, using direct quotes from Matos (2020). For each review, we process one single piece of text, combining the review's title, pros, and cons sections. This approach will allow the model to discern whether positive content and negative content are mentioned in the overall review, regardless of whether the review's writer correctly assigns positive content to the pros section and the negative content to the cons section or not:

Prompt submitted to GPT-4o-mini:

Task:

Analyze the following review an employee writes about a firm and assess whether it indicates that the firm is performing well or poorly on the following categories.

Definitions:

The environmental (E) category measures a company's impact on the natural ecosystem, which comprises its emissions (e.g., greenhouse gases), the efficient use of natural resources in the production process (e.g., in terms of energy, water, or materials), pollution and waste (e.g., spills), and innovation efforts to eco design its products.

The social (S) category covers a company's relations with its workforce, customers, and society. It includes efforts to maintain loyal workers (e.g., employment quality, health and safety, training, and development), satisfy customers (e.g., producing quality goods and services that keep customers safe), and being a good citizen in the communities where it operates.

The governance (G) category captures the systems in place for management to act in the best interests of its long-term shareholders, which include safeguarding shareholder rights (e.g., limiting anti-takeover defenses), having a functioning board (e.g., with experienced, diverse, and independent members), maintaining well-designed executive compensation policies, and avoiding illegal practices, such as fraud and bribery.

For each category (environmental, social, governance):

Determine if the review suggests the firm is performing well on some issues belonging to that category (answer Yes/Not Sure). If Yes, list all the specific words/phrases that support your decision. If Not Sure, leave the list of key words blank.

Determine if the review suggests the firm is performing badly on some issues belonging to that category (answer Yes/Not Sure). If Yes, list all the specific words/phrases that support your decision. If Not Sure, leave the list of key words blank.

Guiding Principles:

Strict Evidence-Based Approach: Only assign a category if the text contains direct and clear references that match the definition.

Avoid Misclassification:

Mentions of "work environment," "good environment," "bad environment," or simply "environment" do not belong in the Environmental category, because Environmental category is about a firm's impact on the planet and natural environment.

Assign "Environmental" only if the review explicitly mentions emissions, pollution, resource use, eco-initiatives, or other clear references to the firm's impact on the planet.

If the review lacks sufficient details, classify it as "Not Sure."

Output Format: Provide a list of dictionaries, structured as:

```
[  
  {"category": "<category_name>", "aspect": "<doing_well/doing_badly>", "answer": "<Yes/Not  
Sure>", "keywords": ["<keyword1>", "<keyword2>", ...]},  
  ...  
]
```

Return only the list without code blocks, explanations, or additional text.

Review:

{review_text}

Unlike previous literature, we capture all the key words mentioned as positive or negative aspect on each ESG category, allowing it us to increase the variability in our measure beyond simple yes, no, or maybe categories. Thanks to this choice, we can construct a GenAI-based inside view measure that resembles our baseline measure – for the purpose of comparability. For example, our GenAI-based inside

view measure on the S category is the total length of the positive key words for the S category scaled by the length of the pros section, minus the total length of the negative key words for the S category scaled by the length of the cons section. Similar to our baseline, we winsorize each GenAI-based inside view measure at the review and the firm-year level to limit the effect of outliers.

We check the informativeness of our GenAI-based inside view measures in correlating with key future ESG outcomes (Table IA13) and then compare that with our baseline measures in a horse race setup (Table IA14). First, the GenAI-based ESG inside measures are significantly associated with future outcomes on the S category (Best Diversity list) and the G category (Internal Control Weaknesses) in several years ahead – with or without controlling for the MSCI ESG ratings, overall employee sentiment, and other firm characteristics – consistent with our baseline results. On the E category, the GenAI-based measure is negatively associated with future satellite-inferred emissions (correct sign), though the relationship is not statistically significant.

In the horse race between the GenAI-based and baseline (word2vec) measures, the baseline measure outperforms in the E category, which is expected. For the S and G categories, both measures perform similarly. The GenAI-based measure has a larger coefficient when predicting one-year-ahead outcomes, but its statistical significance weakens at longer horizons. Overall, the GenAI and word2vec-based measures demonstrate comparable informativeness on average. They also appear to capture complementary aspects of employee insights, suggesting that our baseline estimates may understate the full extent of ESG-related information embedded in employee reviews.

Exhibit IA1: Selected employee reviews for top and bottom firms by the inside view

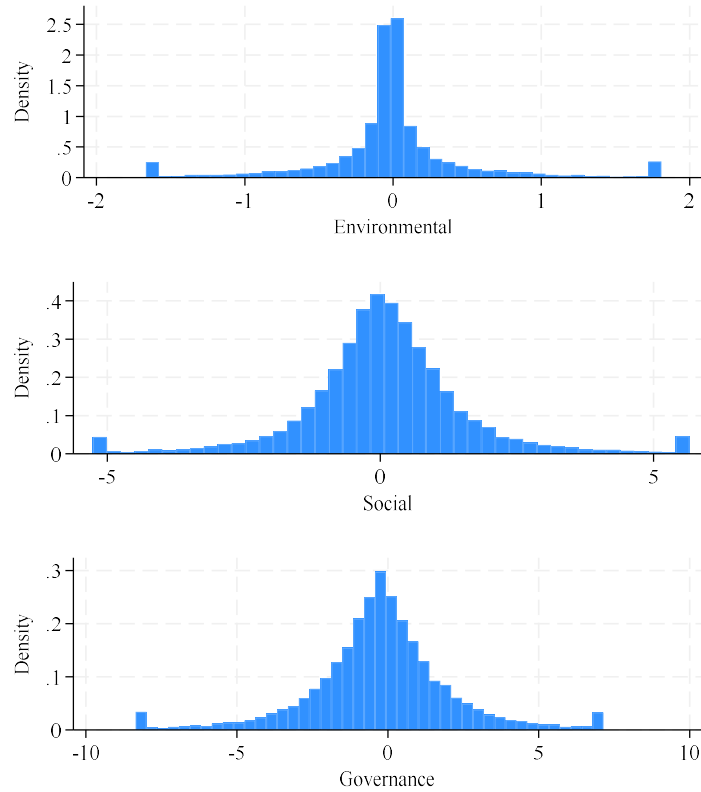
This exhibit presents excerpts from employee reviews at the top and bottom firms in each ESG category—Environmental (E), Social (S), and Governance (G)—based on their average inside view scores between 2014 and 2018. For each category, we show selected quotes from the *pros* section for top firms and the *cons* section for bottom firms.

Company	Employee title	Year	Overall rating	Select text
Top E - SunEdison	Business Development	2015	5.0	Company has excellent potential to capture market share in a rapidly growing sector (renewable energy). With the recent acquisition of First Wind the company is now expanding beyond solar into wind energy . Combined with our work on energy storage technology ...
	Project Engineer	2014	1.0	It's solar . Great way to help the world's energy shortage and go green . Some very excellent and helpful employees...
Bottom E - Pioneer Natural Resources	Anonymous Employee	2016	4.0	They need to do more core analysis and research for better reservoir characterization .
	Operations Technician	2015	4.0	Poor management in Field Operations . Going through a change in focus currently by shifting focus to horizontal drilling ...
Top S - Old National Bancorp	Senior Teller	2016	5.0	Leadership team is great! ONB is dedicated to their community involvement and all employees participate ...
	Anonymous Employee	2018	1.0	Great training programs for employees
Bottom S - Pepco Holdings	Anonymous Employee	2015	4.0	Work ethics and bad management . No gender equality .
	Tax Accountant	2016	5.0	Management doesn't listen to lower level employees, too many hours are required to be worked, bad work life balance
Top G - LinkedIn	Sales	2014	4.0	... Jeff Weiner is an inspiration, and the other execs are all driving towards a shared vision . The culture and values of the company are held in high esteem and they're felt throughout the organizations...
	Anonymous Employee	2017	5.0	Company values and adherence to them (be open, honest & constructive). Transparency is not just a word, it's shown in actions by the executive team. The outstanding leadership team and commitment to developing leaders within the company...
Bottom G - FirstMerit	Anonymous Employee	2014	3.0	no organization , no accountability , need to update systems
	Programmer Analyst	2015	3.0	Slow decision making and lots of Bureaucracy

Figure IA1: Distribution of ESG inside views

In this figure, Panel A plots the histogram for the inside view on each ESG category at the firm-year level. In constructing these histograms, firm-years with no mentioning of ESG topics in their reviews are excluded. The inside view measure at the firm-year level is the average inside view measure across reviews in that firm-year. The inside view measure at the review level is the percentage of E, S, or G words in the review's pros relative to cons sections. Panel B shows the percentages of reviews in our sample that have all positive or all negative views or ratings across categories.

Panel A: Distribution of ESG inside views



Panel B: The percentage of all positive or all negative reviews

	N	Percentage
Mentioning at least one ESG word	2,444,040	43.20
All positive on E, S, and G	2,444,040	0.03
All negative on E, S, and G	2,444,040	0.10
Positive 2 out of 3 E-S-G	2,444,040	1.82
Negative 2 out of 3 E-S-G	2,444,040	3.05
All numerical ratings are 5	2,444,040	9.05
All numerical ratings are 1	2,444,040	2.60
All ratings above 3	2,444,040	24.99
All ratings below 3	2,444,040	6.18

Figure IA2: Trends in employees' attention to ESG issues

Figure a plots the percentage of ESG catchphrases, namely *ESG*, *CSR*, *sustainable*, and *sustainability*, in an average review from 2008 to 2021. Figure b plots the average attention to E, S, and G issues across reviews for each quarter between 2008 and 2021. Before aggregating to the quarter level, we measure the attention to each ESG category for each review by the percentage of words on each category, from our comprehensive ESG dictionaries, in each review.

Figure IA2a: Attention to ESG catchphrases

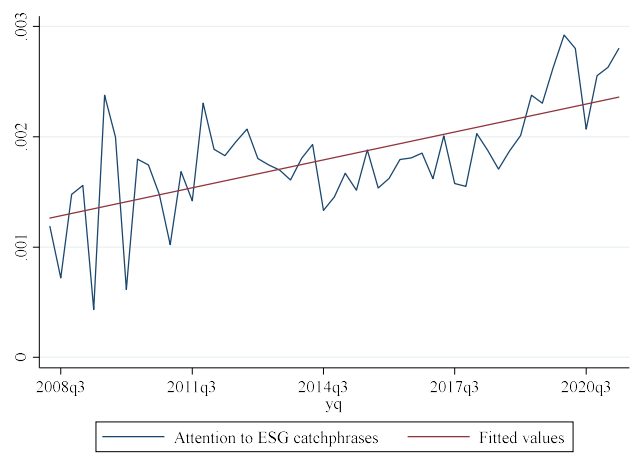


Figure IA2b: Attention to E, S, and G issues more broadly

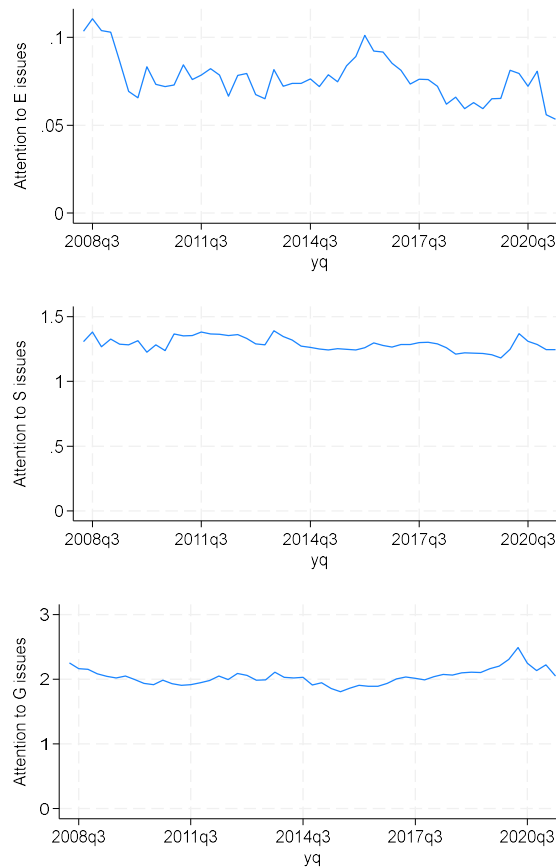


Table IA1: Industry composition of the main sample

This table shows the number and frequency of firms in different industries among my sample of 1,936 unique US publicly listed companies. For comparison, I also report the frequency of different industries in a sample of Compustat firms with a non-missing market value and an average total asset during 2008-2020 that exceeds the minimum average total assets of firms in my sample.

Fama-French industry code	Freq.	My sample Percent	Compustat Percent
Business Services	414	21.38%	11.29%
Retail	151	7.80%	3.23%
Banking	99	5.11%	11.15%
Electronic Equipment	83	4.29%	4.23%
Trading	76	3.93%	6.16%
Computers	70	3.62%	2.20%
Insurance	67	3.46%	2.33%
Wholesale	62	3.20%	2.48%
Restaraunts, Hotels, Motels	56	2.89%	1.29%
Communication	52	2.69%	2.07%
Transportation	52	2.69%	2.59%
Machinery	48	2.48%	1.94%
Healthcare	43	2.22%	1.51%
Pharmaceutical Products	43	2.22%	11.78%
Medical Equipment	38	1.96%	3.13%
Petroleum and Natural Gas	37	1.91%	5.00%
Utilities	35	1.81%	1.53%
Automobiles and Trucks	29	1.50%	1.03%
Food Products	28	1.45%	1.23%
Consumer Goods	28	1.45%	0.84%
Apparel	28	1.45%	0.78%
Chemicals	28	1.45%	1.59%
Personal Services	28	1.45%	0.89%
Measuring and Control Equipment	28	1.45%	1.15%
Construction Materials	25	1.29%	1.19%
Entertainment	23	1.19%	1.26%
Electrical Equipment	20	1.03%	1.21%
Almost Nothing	20	1.03%	5.30%
Construction	19	0.98%	0.88%
Printing and Publishing	15	0.77%	0.38%
Steel Works Etc	14	0.72%	0.72%
Business Supplies	14	0.72%	0.59%
Real Estate	14	0.72%	1.10%
Aircraft	12	0.62%	0.32%
Shipping Containers	9	0.46%	0.15%
Recreation	8	0.41%	0.51%
Rubber and Plastic Products	6	0.31%	0.43%

Defense	6	0.31%	0.13%
Candy & Soda	5	0.26%	0.23%
Beer & Liquor	5	0.26%	0.17%
Non-Metallic and Industrial Metal Mining	4	0.21%	1.44%
Agriculture	3	0.15%	0.31%
Tobacco Products	3	0.15%	0.05%
Textiles	3	0.15%	0.15%
Shipbuilding, Railroad Equipment	3	0.15%	0.16%
Fabricated Products	2	0.10%	0.13%
Coal	2	0.10%	0.35%
Precious Metals	1	0.05%	1.44%
Unclassified	77	3.98%	0.00%
Total	1936	100.00%	100.00%

Table IA2: Lists of ESG issues from industry and academic sources

In this table, Panel A shows the detailed sources where we obtain the lists of ESG issues to create an initial seed word list for each ESG category. Panel B shows the top 25 unigrams and top 25 bigrams that are most frequently used among these sources on each ESG category and also present in the vocabulary of the *word2vec* model trained on 10.4 million employee reviews as described in Section 4. These form the initial seed word lists on ESG topics.

Panel A: Source texts containing lists of ESG issues

Source	Category	Location	Source name	Link
MSCI	E	Page 4	MSCI ESG Ratings Methodology Executive Summary MSCI ESG Research September 2019	https://www.msci.com/documents/1296102/14524248/MSCI+ESG+Ratings+Methodology+-+Exec+Summary+2019.pdf
	S	Page 4		
	G	Page 4		
MSCI	E	Page 18-25	MSCI ESG KLD Stats: 1991-2015 Data Sets	https://libguides.uml.edu/ld.php?content_id=59552417
	S	Page 25-39		
	G	Page 39-41		
Refinitiv	E	Page 10	Environmental, Social and Governance (ESG) Scores from Refinitiv April 2020	https://www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/refinitiv-esg-scores-methodology.pdf
	S	Page 10		
	G	Page 10		
Refinitiv	E	Datastream	Variable Names in Asset4 Dataset	Datastream variable search
	S	Datastream		
	G	Datastream		
S&P Global (RobecoSAM)	E	Figure 4	Measuring Intangibles RobecoSAM's Corporate Sustainability Assessment Methodology	https://www.spglobal.com/spdji/en/documents/additional-material/robeco-sam-measuring-intangibles.pdf
	S	Figure 4		
	G	Figure 4		
S&P Global (RobecoSAM)	E	Page 2-3	CSA Companion 2021 Corporate Sustainability Assessment	https://portal.csa.spglobal.com/survey/documents/CSA_Companion.pdf
	S	Page 3		
	G	Page 3-4		
Sustainalytics	E	All	Descriptions of Material ESG Issues and Corporate Governance	https://www.sustainalytics.com/docs/default-source/meis/definitions-of-meis.pdf?sfvrsn=8e7552c0_4
	S	All		
	G	All		
Vigeo Eiris	E	Page 1	Eiris Sustainability Ratings	https://www.vigeo-eiris.com/wp-content/uploads/2016/11/EIRIS_SustainabilityRatings.pdf
	S	Page 1		
	G	Page 1		
Vigeo Eiris	E	Page 5	ESG Assessment Methodology Executive Summary	https://prodtest-01.vigeo-eiris.com/wp-content/uploads/2021/05/VE_ESG-Assessment-Summary_2021.pdf
	S	Page 5		
	G	Page 5		
RepRisk	E	Page 1	RepRisk Research Scope: ESG Issues, August 2020	https://www.reprisk.com/media/pages/static/2738025864-1618582399/reprisk-esg-issues-definitions.pdf
	S	Page 2-3		
	G	Page 3-4		
CSRHub	E	All	CSRHub Data Schema Description	https://esg.csrhub.com/csrhub-esg-data-schema
	S	All		
	G	All		
	E	Table 3		

Source	Category	Location	Source name	Link
Baier, Berninger, and Kiesel (2020)	S	Table 3	Environmental, Social and Governance Reporting In Annual Reports: A Textual Analysis	https://onlinelibrary.wiley.com/doi/full/10.1111/fmii.12132
	G	Table 3		
Bessec and Fouquau (2021)	E	Table 1	Green Sentiment in Financial Markets: A Global Warning, Date Written: October 13, 2020	https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3710489

Panel B: Top 50 words from the source texts on ESG topics

Environmental	Social	Governance
environmental, emission, waste, climate, energy, water, carbon, biodiversity, pollution, change, use, green, resource, impact, risk, material, packaging, renewable, toxic, recycle, footprint, environment, land, disposal, greenhouse, raw material, renewable energy, carbon footprint, oil spill, efficiently effectively, supply chain, east asia, global footprint, global warming, environmental protection, national park, environmental sustainability, drink water, noise pollution, fossil fuel, electric vehicle, solar energy, solar panel, plastic bag, green belt, air pollution, wind turbine, nuclear power, natural gas, fluorescent lighting	human, right, employee, health, safety, labor, community, labour, social, relation, access, development, capital, indicator, child, responsible, philanthropy, training, fundamental, standard, workforce, privacy, citizenship, occupational, employment, human capital, corporate citizenship, occupational health, supply chain, community involvement, race ethnicity, discrimination harassment, turnover rate, medicaid medicare, performance indicator, collective bargaining, human resource, minimum wage, safe secure, working condition, warning letter, age discrimination, gender racial, racial ethnic, unfair dismissal, human trafficking, threat violence, business model, charitable donation, charitable giving	board, governance, shareholder, ethic, practice, corruption, instability, compensation, structure, code, bribery, tax, corporate, committee, executive, esg, transparency, ownership, audit, level, management, independence, diversity, director, business, code conduct, gender diversity, financial instability, board director, insider trading, financial institution, daytoday operation, tax evasion, false advertising, money laundering, cultural diversity, wide spectrum, policy procedure, 3rd party, regulatory scrutiny, track record, unethical behavior, law violation, nepotism cronyism, hold accountable, government agency, stock price, accountable action, notice period, golden parachute

Table IA3: From seed word lists to final ESG dictionaries

The tables illustrate the refinement of seed word lists and the final ESG dictionaries. Panel A shows the seed word lists after removing noisy words, defined as those outside the top 1000 in cosine similarity to the average vector of the initial seed words. Additionally, supply chain is removed from E, fundamental from S, and financial institution, government agency, and diversity-related words from G. Panel B displays the last twenty words of the dictionaries with different size cutoffs, retaining words only in the most similar category if they appear in multiple dictionaries. Panel C lists the words most commonly used in employee reviews for each ESG category.

Panel A: The seed word lists after removing noisy words.

Environmental	Social	Governance
environmental, emission, energy, water, carbon, biodiversity, pollution, green, packaging, renewable, footprint, recycle, disposal, greenhouse, raw material, renewable energy, carbon footprint, oil spill, global footprint, global warming, environmental protection, environmental sustainability, drinking water, noise pollution, fossil fuel, air pollution, electric vehicle, solar panel, wind turbine, plastic bag, solar energy, industrial automation, nuclear power	human, employee, health, safety, labor, community, labour, social, relation, philanthropy, workforce, citizenship, occupational, human capital, corporate citizenship, occupational health, community involvement, race ethnicity, discrimination harassment, medicaid medicare, collective bargaining, human resource, age discrimination, human trafficking, gender racial, racial ethnic, unfair dismissal, threat violence, gender age, diversity, gender equality, gender diversity, cultural diversity	board, governance, shareholder, ethic, practice, corruption, instability, bribery, committee, executive, esg, transparency, ownership, audit, level, management, business, code conduct, board director, insider trading, daytoday operation, tax evasion, policy procedure, track record, regulatory scrutiny, unethical behavior, nepotism cronyism, law violation

Panel B: Comparing different cutoffs for the final ESG dictionaries' size.

	Environmental	Social	Governance
Last in top 250	gmos, sawdust, deepwater, vapor, pulp, toxin, graphite, residential commercial, furnace, combustible, soil, masonry, underground, fiberglass, dredging, drilling, enclosure, aerial, cardboard, refining	trans, folx, allege, transphobia, societal, microaggression, disadvantaged, religion, abortion, traumainforme, discrimination retaliation, ageism, culturally diverse, queer, environmentalism, nationality, lgbtiq, assault, plan parenthood, ethnically diverse	belief, appropriation, inefficiency, foundation, regulation, lawsuit, forgery, inaction, lawsuit file, bullying, valuation, founder, governmental, misrepresentation, whistleblower, harassment bullying, business acuman, unconscionable, inclusion, identity
Last in top 500	radiation, water leak, actuator, geotech, spillage, exelon, sprinkler, bicycle, biotechnology, kiln, welding, stove, ubiquitin, quarry, puddle, fermentation, chassis, pathogen, solidstate, netzero	whistleblower, subconscious, marginalization, warfighte, widespread, nonviolent, mindfulness, hispanic, descriminate, affinity, unconscious, atheist, rampant sexism, nonminoritie, cultural exchange, minorite, racism, serve nation, intergenerational, malfeasance	business unit, workplace violence, border unethical, fsa, liability, investigate, mechanism, judiciary, avoidance, directive, pende lawsuit, grantmake, diplomacy, hiringpromotion, ethically morally, egotism, modus operandi, legalize, alliance, upper echelon
Last in top 1000	railcar, transplantation, spiderwebs, mechatronic, electricalelectronic, tap water, ghana, watt, residue, refineries, topside, porosity, importer, ev charge, herbal, leak, cyber security, biohazardous, busted, kazakhstan	ethnocentric, communityoriente, antigovernment, mobbing, antimale, terrorist, premarital, developmental disability, misdeed, nonwestern, commonwealth, antiretaliation, represent, physicalsexual, incountry, biblical, worldview, africa, unfairness, institutionally	moral, institution, pcaob, intolerance, stovepiping, statement, kushner, adultery, public affair, doublespeak, posture, democratic, carelessness, sex discrimination, retaliatory, nepotismcronyism, result, merger acquisition, investigative, charlatan

Panel C: Most frequently used ESG key words in employee reviews.

Environmental	Social	Governance
plant, water, construction, manufacturing, green, manufacture, oil, industrial, environmental, oil gas, planet, storage, chemical, manufacturer, utility, solar, engine, footprint, electrical, recycle, lighting, electric, plastic, steel, packaging, battery, metal, mining, pipe, nuclear	employee, health, community, workplace, diversity, safety, social, workforce, human, personnel, human resource, legal, cultural, mental health, discrimination, welfare, harassment, population, wellbeing, minority, regulation, advocate, diversity inclusion, youth, sexual harassment, wellbeing, evidence, racism, society, discriminate	culture, business, leadership, organization, CEO, leader, decision, executive, practice, strategy, operation, financial, ethic, innovation, partner, transparency, initiative, organization, ownership, administration, accountability, action, board, behavior, integrity, engagement, appear, president, professionalism, nepotism

Table IA4: Persistence in the ESG inside view

This table shows the regressions at the firm-year level of the inside view at year t on its value at year t-1, for the E, S, and G categories separately. Control variables, when included, are the numerical ratings on Glassdoor, all averaged across reviews to the firm-year level, measured at year t. Industry fixed effects are based on the Fama French 48 industry classification. Detailed variable descriptions are in Appendix B in the main paper. Robust standard errors are in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)
	E inside view		S inside view		G inside view	
Lagged E inside view	0.108*** (0.014)	0.100*** (0.015)				
Lagged S inside view			0.138*** (0.009)	0.098*** (0.010)		
Lagged G inside view					0.234*** (0.009)	0.135*** (0.010)
Rating - overall		-0.023** (0.011)		0.027 (0.050)		0.235*** (0.067)
Rating - balance		-0.011 (0.007)		0.030 (0.026)		-0.239*** (0.036)
Rating - culture		-0.005 (0.009)		0.417*** (0.039)		0.464*** (0.049)
Rating - career		0.023** (0.009)		-0.115*** (0.039)		0.002 (0.049)
Rating - compensation		-0.010* (0.006)		0.108*** (0.023)		-0.265*** (0.031)
Rating - management		0.006 (0.010)		-0.062 (0.041)		0.629*** (0.056)
_cons	0.004** (0.002)	0.021 (0.058)	0.170*** (0.007)	-1.433*** (0.219)	0.114*** (0.009)	-2.526*** (0.234)
Observations	19740	16295	19740	16295	19740	16295
R-squared	0.012	0.042	0.021	0.120	0.056	0.276
Industry FE	no	yes	no	yes	no	yes

Robust standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA5: Climate Trace Emissions Estimates – Extensive vs. intensive margins

This table reports firm-year regressions of emissions metrics from Climate Trace database in years t+1, t+2, or t+3 on E inside view and MSCI E rating at year t, separating the extensive and intensive margins. Panel A's dependent variable is an indicator for whether Climate Trace reports emissions (extensive margin); Panel B uses the level of estimated emissions conditional on being nonzero (intensive margin). Panel A uses logistic regressions, Panel B Poisson regressions. Controls include Fama-French 48 industry $\times$ year fixed effects, size, and ROA (Li et al. 2021), all at year t. Missing MSCI ratings are replaced by lagged values. All variables (except indicators) are standardized. Standard errors (in parentheses) are clustered by firm.

Panel A: Extensive margin

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.14* (0.07)	-0.17** (0.07)	-0.16** (0.07)	-0.11 (0.07)	-0.12* (0.07)	-0.11 (0.07)	-0.05 (0.06)	-0.06 (0.06)	-0.04 (0.06)
MSCI E		-0.08 (0.16)	-0.08 (0.17)		0.07 (0.14)	0.07 (0.15)		0.09 (0.14)	0.09 (0.14)
Overall rating			0.43 (0.28)			0.50* (0.28)			0.44 (0.29)
Observations	1628	1354	1273	1578	1282	1281	1578	1265	1263
Pseudo R2	0.29	0.34	0.34	0.29	0.33	0.34	0.29	0.32	0.33
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Intensive margin

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.11** (0.05)	-0.10** (0.05)	-0.12*** (0.04)	-0.18** (0.08)	-0.21*** (0.06)	-0.24*** (0.05)	-0.11 (0.10)	-0.13 (0.10)	-0.13 (0.10)
MSCI E		0.11 (0.09)	0.13 (0.09)		0.00 (0.15)	0.01 (0.14)		-0.02 (0.19)	-0.02 (0.18)
Overall rating			0.04 (0.28)			-0.32* (0.19)			0.01 (0.28)
Observations	145	130	124	135	118	118	122	101	101
Pseudo R2	0.83	0.83	0.87	0.74	0.75	0.75	0.73	0.72	0.72
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Table IA6: Robustness to Table 4 on Environmental performance

This table reports firm-year regressions analogous to Table 4, with separate panels for various robustness checks. To keep this table manageable, we focus on our main result about levels of estimated emissions from Climate Trace (the first Panel in Table 4). Panel A adds governance controls, including the entrenchment index (Bebchuk, Cohen, and Ferrell, 2009) and institutional ownership (Dyck et al., 2019). Panel B includes additional firm characteristics such as sales growth, cash ratio, debt ratio, and Tobin's Q. Panel C controls for all numerical Glassdoor sub-ratings beyond the overall rating. Panel D adds lagged emissions as a control. Panel E presents placebo tests using the S or G inside views instead of the E inside view. Panel F is the only exception where the dependent variable is emissions intensity based on Climate Trace estimates.

Panel A: Controlling additionally for governance attributes

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.18** (0.08)	-0.19** (0.09)	-0.19 (0.13)	-0.26*** (0.07)	-0.26*** (0.07)	-0.28*** (0.06)	-0.12 (0.20)	-0.11 (0.18)	-0.08 (0.16)
Inst. own	-0.52 (1.41)	-0.29 (1.51)	-0.25 (1.54)	-1.69 (1.14)	-2.62 (1.66)	-2.61 (1.67)	0.18 (1.46)	-0.42 (1.49)	-0.57 (1.41)
E-index	-0.09 (0.29)	-0.09 (0.29)	-0.11 (0.31)	-0.15 (0.27)	-0.12 (0.25)	-0.09 (0.24)	-0.02 (0.29)	0.00 (0.30)	-0.10 (0.28)
MSCI E		-0.18 (0.15)	-0.19 (0.15)		-0.16 (0.15)	-0.16 (0.15)		-0.13 (0.19)	-0.10 (0.17)
Overall rating			0.17 (0.42)			-0.17 (0.32)			0.56* (0.30)
Observations	1095	1068	1011	1050	1028	1028	1020	1002	1001
Pseudo R ²	0.73	0.74	0.75	0.75	0.75	0.75	0.71	0.72	0.73
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Controlling additionally for more firm characteristics

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.07 (0.09)	-0.05 (0.09)	-0.07 (0.10)	-0.18** (0.09)	-0.14 (0.10)	-0.16* (0.08)	-0.11 (0.18)	-0.11 (0.17)	-0.09 (0.15)
Leverage	-0.85* (0.48)	-0.75 (0.59)	-0.84 (0.64)	-1.33*** (0.40)	-1.42*** (0.53)	-1.45*** (0.53)	-0.72 (0.49)	-0.82 (0.59)	-0.89 (0.61)
Tobin's Q	-0.91 (0.97)	-0.66 (0.94)	-0.81 (0.88)	-0.81 (0.62)	-0.89 (0.60)	-0.90 (0.61)	1.06 (0.73)	0.82 (0.70)	0.74 (0.65)
Sales growth	-0.53** (0.23)	-0.53** (0.23)	-0.64** (0.30)	-0.29 (0.33)	-0.42 (0.31)	-0.40 (0.32)	0.05 (0.18)	0.12 (0.19)	0.08 (0.17)
Cash/assets	0.39 (0.59)	0.84 (0.74)	0.54 (0.67)	0.54 (0.47)	1.24** (0.53)	1.26** (0.55)	0.28 (0.51)	0.77 (0.52)	0.61 (0.57)
MSCI E		-0.16 (0.16)	-0.15 (0.15)		-0.08 (0.15)	-0.07 (0.14)		-0.01 (0.20)	0.02 (0.18)
Overall rating			-0.09 (0.36)			-0.16 (0.37)			0.45 (0.28)
Observations	1520	1314	1235	1483	1244	1243	1470	1226	1224
Pseudo R ²	0.76	0.77	0.79	0.77	0.79	0.79	0.72	0.74	0.75
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Panel C: Controlling additionally for all numerical Glassdoor ratings beyond the overall rating

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.03 (0.11)	-0.09 (0.11)	-0.10 (0.11)	-0.20*** (0.07)	-0.19*** (0.07)	-0.19*** (0.07)	-0.05 (0.13)	-0.05 (0.09)	-0.05 (0.09)
Rating balance	0.88* (0.47)	0.85** (0.43)	0.85** (0.43)	0.16 (0.30)	0.26 (0.32)	0.32 (0.32)	0.40 (0.32)	0.40 (0.31)	0.51* (0.28)
Rating culture	-0.98** (0.50)	-1.43*** (0.49)	-1.34** (0.58)	0.11 (0.44)	-0.35 (0.52)	-0.11 (0.53)	-0.47 (0.40)	-0.75* (0.44)	-0.60 (0.46)
Rating career	-1.03 (0.78)	-0.89 (0.71)	-0.87 (0.70)	-0.91* (0.52)	-0.44 (0.51)	-0.37 (0.52)	-0.67* (0.39)	-0.52 (0.42)	-0.31 (0.38)
Rating pay	1.04** (0.42)	1.06*** (0.39)	1.12*** (0.36)	1.03** (0.46)	1.12** (0.47)	1.20** (0.47)	0.79* (0.42)	0.77* (0.46)	0.89* (0.46)
Rating mgmt.	0.68 (0.52)	0.95** (0.48)	0.97** (0.45)	-0.22 (0.42)	-0.32 (0.42)	-0.17 (0.47)	0.71 (0.58)	0.79 (0.70)	0.99 (0.75)
MSCI E		-0.30*** (0.11)	-0.30*** (0.10)		-0.28*** (0.10)	-0.29*** (0.09)		-0.07 (0.20)	-0.09 (0.20)
Overall rating			-0.18 (0.32)			-0.65 (0.55)			-0.84 (0.60)
Observations	1540	1271	1271	1582	1280	1280	1579	1259	1259
Pseudo R ²	0.79	0.81	0.81	0.78	0.79	0.79	0.75	0.77	0.77
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Panel D: Controlling additionally for lagged emissions

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.18** (0.07)	-0.17** (0.09)	-0.17 (0.12)	-0.27*** (0.09)	-0.22** (0.09)	-0.28*** (0.07)	-0.11 (0.21)	-0.11 (0.16)	-0.08 (0.12)
MSCI E		-0.19 (0.17)	-0.21 (0.17)		-0.21 (0.18)	-0.20 (0.17)		-0.20 (0.20)	-0.17 (0.17)
Emissions (t)		0.00 (0.00)	-0.00 (0.00)		-0.00 (0.00)	0.00 (0.00)		-0.00* (0.00)	-0.00** (0.00)
Overall rating			0.13 (0.44)			-0.39 (0.39)			0.69 (0.48)
Observations	1632	1240	1159	1584	1054	1054	1586	929	929
Pseudo R ²	0.73	0.75	0.75	0.74	0.76	0.76	0.71	0.74	0.74
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel E: Placebo: emissions association with S and G inside views

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.27 (0.23)	0.16 (0.22)	0.14 (0.21)	0.01 (0.31)	-0.03 (0.31)	-0.04 (0.31)	0.09 (0.31)	-0.04 (0.37)	-0.22 (0.32)
Inside view G	0.18 (0.24)	0.20 (0.28)	0.13 (0.27)	0.09 (0.33)	0.03 (0.27)	-0.00 (0.31)	0.04 (0.32)	0.04 (0.29)	-0.27 (0.31)
MSCI S		0.14 (0.22)	0.11 (0.24)		0.03 (0.19)	0.02 (0.20)		0.06 (0.41)	-0.01 (0.38)
MSCI G		0.18 (0.19)	0.14 (0.18)		0.13 (0.14)	0.13 (0.13)		0.08 (0.20)	0.10 (0.18)
Overall rating			0.14 (0.28)			0.15 (0.52)			0.88** (0.36)
Observations	1632	1341	1261	1584	1271	1270	1586	1256	1254
Pseudo R ²	0.72	0.74	0.74	0.72	0.74	0.74	0.70	0.72	0.74
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel F: Emissions intensity

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.03 (0.02)	-0.04* (0.02)	-0.04* (0.02)	-0.03 (0.03)	-0.04 (0.04)	-0.04 (0.04)
MSCI E		0.00 (0.02)	0.00 (0.02)		0.01 (0.02)	0.01 (0.02)		0.00 (0.02)	0.00 (0.02)
Overall rating			0.01** (0.01)			0.01 (0.01)			0.02* (0.01)
Observations	10125	8705	8407	9807	8328	8326	9471	7934	7918
R-squared	0.11	0.14	0.14	0.11	0.14	0.14	0.11	0.14	0.14
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA7: Robustness to Table 5 on social performance – Best Diversity List

This table reports firm-year regressions analogous to Table 5, with separate panels for various robustness checks. To keep this table manageable, we focus on our main result about Best Diversity List (the first Panel in Table 5). Panel A adds governance controls, including the entrenchment index (Bebchuk, Cohen, and Ferrell, 2009) and institutional ownership (Dyck et al., 2019). Panel B includes additional firm characteristics such as sales growth, cash ratio, debt ratio, and Tobin's Q. Panel C controls for all numerical Glassdoor sub-ratings beyond the overall rating. Panel D adds lagged emissions as a control. Panel E presents placebo tests using the E inside view. Panel F presents results with industry times year fixed effects (which often take too long to complete for logit).

Panel A: Controlling additionally for governance attributes

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	1.23*** (0.20)	1.20*** (0.20)	0.82*** (0.20)	1.04*** (0.19)	1.00*** (0.18)	0.66*** (0.18)	0.99*** (0.17)	0.96*** (0.17)	0.69*** (0.19)
Inst. own	1.31 (1.47)	1.28 (1.50)	1.58 (1.55)	1.10 (1.47)	1.03 (1.50)	1.45 (1.60)	0.99 (1.46)	0.87 (1.53)	1.16 (1.64)
E-index	0.48** (0.25)	0.45* (0.25)	0.55** (0.26)	0.63*** (0.24)	0.60** (0.24)	0.78*** (0.26)	0.64*** (0.22)	0.63*** (0.23)	0.77*** (0.24)
MSCI S		0.30 (0.20)	0.28 (0.23)		0.23 (0.21)	0.17 (0.23)		0.16 (0.23)	0.08 (0.24)
Overall rating			1.61*** (0.31)			1.68*** (0.29)			1.35*** (0.25)
Observations	2658	2611	2611	2593	2545	2545	2531	2475	2471
Pseudo R ²	0.23	0.23	0.29	0.23	0.23	0.30	0.22	0.22	0.27
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Controlling additionally for more firm characteristics

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.96*** (0.13)	0.98*** (0.15)	0.64*** (0.14)	0.92*** (0.13)	0.85*** (0.13)	0.56*** (0.12)	0.72*** (0.12)	0.71*** (0.14)	0.44*** (0.14)
Leverage	-0.30 (0.26)	-0.25 (0.28)	-0.08 (0.29)	-0.25 (0.27)	-0.20 (0.29)	-0.04 (0.30)	-0.15 (0.29)	-0.08 (0.32)	0.02 (0.33)
Tobin's Q	0.43*** (0.14)	0.48*** (0.14)	0.33* (0.17)	0.32** (0.16)	0.36** (0.15)	0.18 (0.17)	0.29* (0.16)	0.30** (0.15)	0.16 (0.17)
Sales growth	0.16 (0.12)	0.13 (0.13)	-0.00 (0.17)	0.39*** (0.14)	0.34** (0.16)	0.20 (0.20)	0.30** (0.13)	0.29* (0.16)	0.18 (0.19)
Cash/assets	-0.12 (0.18)	-0.17 (0.18)	-0.35* (0.20)	-0.13 (0.19)	-0.12 (0.18)	-0.31 (0.20)	0.02 (0.18)	0.01 (0.18)	-0.12 (0.20)
MSCI S		0.42** (0.19)	0.42** (0.20)		0.43** (0.21)	0.42* (0.22)		0.36 (0.23)	0.30 (0.22)
Overall rating			1.41*** (0.24)			1.45*** (0.25)			1.08*** (0.22)
Observations	4393	3738	3737	4169	3502	3501	4068	3396	3386
Pseudo R ²	0.23	0.23	0.28	0.23	0.22	0.27	0.21	0.20	0.23
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Panel C: Controlling additionally for all numerical Glassdoor ratings beyond the overall rating

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.48*** (0.14)	0.49*** (0.16)	0.50*** (0.16)	0.51*** (0.14)	0.42*** (0.14)	0.42*** (0.14)	0.30** (0.12)	0.31** (0.14)	0.31** (0.14)
Rating balance	-0.28 (0.30)	-0.11 (0.34)	-0.06 (0.33)	-0.14 (0.29)	-0.04 (0.32)	-0.05 (0.32)	-0.03 (0.24)	0.07 (0.28)	0.03 (0.29)
Rating culture	2.06*** (0.44)	1.79*** (0.47)	1.88*** (0.48)	1.49*** (0.44)	1.30*** (0.45)	1.28*** (0.47)	1.14*** (0.34)	0.93** (0.37)	0.83** (0.38)
Rating career	0.03 (0.27)	0.19 (0.32)	0.30 (0.39)	0.23 (0.27)	0.30 (0.30)	0.29 (0.33)	0.09 (0.22)	0.20 (0.28)	0.10 (0.32)
Rating pay	0.30 (0.29)	0.30 (0.30)	0.34 (0.32)	0.20 (0.25)	0.28 (0.26)	0.27 (0.28)	0.32 (0.24)	0.35 (0.26)	0.30 (0.28)
Rating mgmt.	-0.62 (0.41)	-0.66 (0.46)	-0.56 (0.50)	-0.32 (0.39)	-0.34 (0.46)	-0.36 (0.48)	-0.28 (0.32)	-0.34 (0.38)	-0.44 (0.40)
MSCI S		0.33* (0.20)	0.33 (0.20)		0.34 (0.21)	0.34 (0.21)		0.30 (0.22)	0.30 (0.22)
Overall rating			-0.42 (0.72)			0.07 (0.63)			0.41 (0.55)
Observations	4842	4016	4016	4817	3897	3897	4705	3766	3766
Pseudo R ²	0.29	0.28	0.28	0.28	0.27	0.27	0.24	0.23	0.23
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Panel D: Controlling additionally for lagged list inclusion (lagged Y)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.96*** (0.12)	0.74*** (0.13)	0.43*** (0.16)	0.91*** (0.12)	0.71*** (0.15)	0.37** (0.18)	0.69*** (0.11)	0.54*** (0.15)	0.24 (0.17)
MSCI S		0.05 (0.18)	0.00 (0.20)		0.17 (0.19)	0.13 (0.21)		0.01 (0.24)	-0.04 (0.25)
Lagged Y		5.37*** (0.36)	5.04*** (0.36)		4.19*** (0.42)	3.82*** (0.41)		4.25*** (0.59)	3.84*** (0.58)
Overall rating			1.24*** (0.25)			1.43*** (0.29)			1.09*** (0.28)
Observations	4844	3256	3256	4821	2402	2402	4736	1505	1505
Pseudo R ²	0.19	0.51	0.54	0.19	0.35	0.39	0.17	0.27	0.30
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel E: Placebo: Best diversity list association with E inside view

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	0.02 (0.16)	0.03 (0.18)	-0.05 (0.24)	-0.01 (0.11)	-0.01 (0.13)	-0.06 (0.19)	-0.06 (0.14)	-0.09 (0.17)	-0.12 (0.24)
MSCI E		0.28 (0.20)	0.21 (0.22)		0.16 (0.20)	0.07 (0.21)		0.15 (0.20)	0.06 (0.20)
Overall rating			1.61*** (0.23)			1.54*** (0.21)			1.22*** (0.17)
Observations	4844	4018	4017	4821	3900	3899	4736	3790	3780
Pseudo R ²	0.16	0.15	0.24	0.15	0.15	0.23	0.15	0.14	0.21
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel F: Controlling for industry times year fixed effects

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	1.01*** (0.13)	1.00*** (0.15)	0.64*** (0.15)	0.96*** (0.12)	0.88*** (0.13)	0.56*** (0.12)	0.71*** (0.11)	0.66*** (0.12)	0.41*** (0.13)
MSCI S		0.40** (0.18)	0.42** (0.20)		0.41** (0.20)	0.41* (0.21)		0.40* (0.21)	0.35 (0.23)
Overall rating			1.45*** (0.24)			1.43*** (0.23)			1.13*** (0.19)
Observations	3855	3172	3171	3837	3074	3073	3776	2999	2994
Pseudo R ²	0.18	0.18	0.25	0.18	0.17	0.24	0.16	0.16	0.21
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA8: Robustness to Table 5 on social performance – other indicators

This table reports firm-year regressions analogous to Table 5, with separate panels for various robustness checks focusing on social indicators beyond the main indicators in Table 5. Panels A and B focus on media-exposed product controversies, with and without controlling for past controversies. Panels C and D focus on the (log) number of consumer complaints filed with Consumer Financial Protection Bureau (CFPB) and the likelihood of a firm having an enforcement action with CFPB, respectively. All regressions use OLS except for Panel D using logit to estimate the regressions. Enforcement data are hand-collected from the CFPB website, while complaints data are merged based on fuzzy name matching to Compustat with manual verification. Some leading zeros are dropped in Panels A and B to ensure table fit.

Panel A: S inside view and media-exposed product controversies

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	-.02* (0.01)	-0.02 (0.01)	-0.01 (0.01)	-.03*** (0.01)	-0.03** (0.01)	-0.03** (0.01)	-.03** (0.01)	-0.03** (0.01)	-0.02** (0.01)
MSCI S		-.08*** (0.02)	-.08*** (0.02)		-.08*** (0.01)	-.07*** (0.01)		-.07*** (0.01)	-.07*** (0.01)
Overall rating			-.04*** (0.01)			-0.02 (0.01)			-0.03** (0.01)
Observations	12087	10660	10323	11045	9614	9501	9853	8487	8379
R-squared	0.15	0.17	0.17	0.15	0.17	0.16	0.14	0.16	0.16
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: S inside view and media-exposed product controversies – controlling for lagged controversies

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	-0.02* (0.01)	-0.01 (0.01)	-0.01 (0.01)	-.03*** (0.01)	-.03*** (0.01)	-.04*** (0.01)	-.03** (0.01)	-0.02** (0.01)	-0.02* (0.01)
MSCI S		-.05*** (0.01)	-.04*** (0.01)		-.04*** (0.01)	-.05*** (0.01)		-.05*** (0.01)	-0.05*** (0.01)
Y(t)		0.42*** (0.02)	0.41*** (0.02)		0.33*** (0.02)	0.32*** (0.02)		0.27*** (0.02)	0.26*** (0.02)
Overall rating			-0.02** (0.01)			0.01 (0.01)			-0.02 (0.01)
Observations	12087	9184	8902	11045	8248	8164	9853	7316	7232
R-squared	0.15	0.33	0.33	0.15	0.27	0.27	0.14	0.25	0.25
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Panel C: S inside view and CFPB complaints

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	-0.21* (0.11)	-0.12 (0.10)	-0.14* (0.08)	-0.25** (0.10)	-0.21** (0.10)	-0.24*** (0.09)	-0.20** (0.10)	-0.17* (0.09)	-0.20** (0.09)
MSCI S		-0.73*** (0.26)	-0.73*** (0.26)		-0.44* (0.23)	-0.44* (0.23)		-0.39* (0.21)	-0.40* (0.21)
Overall rating			0.04 (0.22)			0.13 (0.25)			0.13 (0.23)
Observations	613	568	548	598	548	548	583	525	525
R-squared	0.51	0.56	0.57	0.50	0.55	0.55	0.50	0.56	0.56
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel D: S inside view and likelihood of CFPB enforcement actions.

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	-0.24 (0.61)	0.10 (0.67)	0.41 (0.80)	-0.33 (0.24)	-0.24 (0.19)	-0.21 (0.20)	-1.22*** (0.47)	-1.30** (0.60)	-1.35** (0.53)
MSCI S		-0.46* (0.26)	-0.34 (0.32)		-0.77* (0.40)	-0.78** (0.39)		0.46 (0.43)	0.46 (0.43)
Overall rating			-0.16 (0.81)			-0.06 (0.41)			0.14 (0.48)
Observations	479	433	360	465	413	409	458	397	390
Pseudo R ²	0.12	0.13	0.18	0.13	0.15	0.15	0.30	0.33	0.33
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA9: Robustness to Table 6 on governance performance

This table reports firm-year regressions analogous to Table 6, with separate panels for various robustness checks. To keep this table manageable, we focus on our main result about internal control weaknesses (the first Panel in Table 6). Panel A adds governance controls, including the entrenchment index (Bebchuk, Cohen, and Ferrell, 2009) and institutional ownership (Dyck et al., 2019). Panel B includes additional firm characteristics such as sales growth, cash ratio, debt ratio, and Tobin's Q. Panel C controls for all numerical Glassdoor sub-ratings beyond the overall rating. Panel D adds lagged count of internal control weaknesses as a control. Panel E presents placebo tests using the E or S inside views instead of the E inside view. Some leading zeros are omitted to ensure table fit.

Panel A: Controlling additionally for governance attributes

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view G	-0.21** (0.10)	-0.25** (0.11)	-0.18 (0.12)	-0.19* (0.11)	-0.22* (0.12)	-0.15 (0.11)	-0.30** (0.13)	-0.31** (0.13)	-0.29** (0.13)
Inst. own	-1.74*** (0.61)	-1.94*** (0.73)	-2.07*** (0.72)	-1.34** (0.53)	-1.29* (0.69)	-1.44** (0.63)	-0.51 (0.75)	-0.19 (0.89)	-0.24 (0.90)
E-index	-0.14 (0.16)	-0.16 (0.17)	-0.15 (0.17)	-0.18 (0.17)	-0.26 (0.18)	-0.23 (0.17)	-0.16 (0.17)	-0.27 (0.17)	-0.25 (0.17)
MSCI G		-0.11 (0.15)	-0.08 (0.15)		0.01 (0.11)	0.01 (0.12)		-0.00 (0.13)	-0.00 (0.14)
Overall rating			-0.28** (0.11)			-0.34*** (0.13)			-0.20 (0.12)
Observations	4976	4673	4612	4347	4126	4077	3933	3742	3677
Pseudo R ²	0.27	0.26	0.26	0.25	0.24	0.25	0.22	0.22	0.21
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Controlling additionally for more firm characteristics

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view G	-0.20*** (0.07)	-0.19*** (0.07)	-0.20** (0.08)	-0.17*** (0.06)	-0.20** (0.09)	-0.18* (0.10)	-0.19*** (0.07)	-0.25*** (0.09)	-0.27*** (0.09)
Leverage	0.25*** (0.09)	0.33*** (0.11)	0.34*** (0.11)	0.18* (0.10)	0.21* (0.12)	0.20* (0.12)	0.20** (0.09)	0.23* (0.12)	0.22* (0.13)
Tobin's Q	-0.31** (0.14)	-0.39** (0.17)	-0.40** (0.18)	-0.23* (0.12)	-0.28* (0.16)	-0.29* (0.16)	-0.29*** (0.09)	-0.39*** (0.13)	-0.37*** (0.14)
Sales growth	-0.01 (0.07)	-0.02 (0.09)	-0.03 (0.09)	-0.02 (0.10)	-0.06 (0.14)	-0.06 (0.14)	0.12 (0.09)	0.07 (0.10)	0.08 (0.10)
Cash/assets	-0.28** (0.14)	-0.32* (0.18)	-0.33* (0.19)	-0.32** (0.14)	-0.36* (0.19)	-0.36* (0.19)	-0.26** (0.11)	-0.31** (0.13)	-0.31** (0.14)
MSCI G		0.04 (0.10)	0.04 (0.10)		0.17** (0.08)	0.14 (0.09)		0.08 (0.10)	0.07 (0.10)
Overall rating			0.02 (0.08)			-0.07 (0.11)			-0.01 (0.11)
Observations	10492	7981	7892	9352	6711	6614	7817	5804	5698
Pseudo R ²	0.20	0.22	0.22	0.19	0.20	0.21	0.18	0.20	0.20
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Panel C: Controlling additionally for all numerical Glassdoor ratings beyond the overall rating

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view G	-.25*** (0.08)	-.30*** (0.08)	-.30*** (0.08)	-0.15* (0.09)	-0.21* (0.11)	-0.21* (0.11)	-.27*** (0.08)	-.41*** (0.10)	-.41*** (0.10)
Rating balance	0.00 (0.13)	0.05 (0.14)	0.04 (0.14)	-0.05 (0.12)	0.03 (0.15)	0.02 (0.15)	-0.07 (0.12)	-0.03 (0.14)	-0.05 (0.14)
Rating culture	-.49*** (0.16)	-.49*** (0.19)	-.50*** (0.24)	-.35*** (0.16)	-.45*** (0.18)	-.46*** (0.18)	-.56*** (0.18)	-.66*** (0.23)	-.74*** (0.25)
Rating career	0.03 (0.15)	0.11 (0.17)	0.10 (0.18)	0.09 (0.12)	0.17 (0.15)	0.15 (0.15)	0.07 (0.13)	-0.00 (0.18)	-0.07 (0.20)
Rating pay	0.07 (0.10)	0.08 (0.13)	0.07 (0.13)	0.12 (0.12)	0.02 (0.14)	0.01 (0.14)	0.11 (0.12)	0.10 (0.16)	0.06 (0.15)
Rating management	0.16 (0.18)	0.09 (0.23)	0.08 (0.25)	-0.09 (0.19)	-0.01 (0.24)	-0.04 (0.24)	0.16 (0.19)	0.28 (0.23)	0.16 (0.26)
MSCI G		-0.02 (0.15)	-0.02 (0.15)		0.05 (0.15)	0.05 (0.15)		-0.03 (0.17)	-0.02 (0.17)
Overall rating			0.04 (0.33)			0.08 (0.23)			0.32 (0.31)
Observations	9101	7124	7124	7746	5831	5831	6475	4724	4724
Pseudo R ²	0.16	0.18	0.18	0.15	0.17	0.17	0.16	0.19	0.19
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Panel D: Controlling additionally for lagged outcome

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view G	-0.30*** (0.06)	-0.30*** (0.07)	-.25*** (0.08)	-.22*** (0.06)	-.24*** (0.08)	-0.18** (0.08)	-.22*** (0.06)	-.28*** (0.09)	-.27*** (0.09)
Y(t)	0.19*** (0.02)	0.19*** (0.02)	0.19*** (0.02)	0.13*** (0.02)	0.13*** (0.02)	0.13*** (0.02)	0.12*** (0.03)	0.17*** (0.04)	0.17*** (0.04)
MSCI G		-0.10 (0.12)	-0.11 (0.12)		0.08 (0.11)	0.03 (0.11)		-0.00 (0.11)	-0.02 (0.11)
Overall rating			-.19*** (0.07)			-0.23** (0.09)			-0.15* (0.09)
Observations	11808	8811	8713	10568	7560	7454	9212	6576	6461
Pseudo R ²	0.24	0.27	0.27	0.18	0.20	0.21	0.15	0.17	0.18
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel E: Placebo: Internal control weaknesses association with E and S inside views

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	0.11* (0.07)	0.13* (0.08)	0.11 (0.08)	0.13** (0.06)	0.09 (0.07)	0.08 (0.08)	0.09* (0.05)	0.08 (0.06)	0.08 (0.06)
Inside view S	-0.10 (0.08)	0.00 (0.08)	0.07 (0.09)	-0.14** (0.06)	-0.08 (0.08)	-0.04 (0.08)	-0.13** (0.06)	-0.13* (0.08)	-0.11 (0.08)
MSCI E		-0.10 (0.13)	-0.08 (0.13)		-0.12 (0.11)	-0.10 (0.12)		-0.11 (0.12)	-0.10 (0.11)
MSCI S		-0.11 (0.08)	-0.09 (0.08)		-0.13* (0.08)	-0.12 (0.08)		-0.08 (0.09)	-0.07 (0.09)
Overall rating			-0.27*** (0.08)			-0.25*** (0.09)			-0.19** (0.09)
Observations	11808	8837	8739	10568	7583	7477	9212	6597	6482
Pseudo R ²	0.15	0.16	0.17	0.15	0.17	0.17	0.14	0.15	0.16
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA10: ESG inside views and implied cost of capital (ICC)

This table reports firm-year regressions analogous to Table 8, with left-hand-side variable being the implied cost of capital (ICC), estimated using stock price and analysts' forecasts. Panel A focuses on ICC in up to 3 years ahead while Panel B focuses on ICC in the same year the inside views are measured. Some leading zeros are omitted to ensure table fit.

Panel A: ICC in years ahead

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.01* (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01* (0.01)	-0.01* (0.01)
Inside view S	-0.01 (0.01)	-0.00 (0.01)	0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	0.01 (0.01)	-0.00 (0.01)	0.00 (0.01)	0.02** (0.01)
Inside view G	-0.08*** (0.01)	-0.07*** (0.01)	-0.05*** (0.01)	-0.06*** (0.01)	-0.06*** (0.01)	-0.03*** (0.01)	-0.06*** (0.01)	-0.06*** (0.01)	-0.04*** (0.01)
MSCI E		-0.02 (0.02)	-0.02 (0.02)		-0.03* (0.02)	-0.02 (0.02)		-0.03** (0.02)	-0.03 (0.02)
MSCI S		-0.06*** (0.01)	-0.05*** (0.01)		-0.05*** (0.01)	-0.05*** (0.01)		-0.05*** (0.02)	-0.04*** (0.02)
MSCI G		-0.02 (0.02)	-0.02 (0.02)		-0.02 (0.02)	-0.02 (0.02)		-0.02 (0.02)	-0.03 (0.02)
Overall rating			-0.09*** (0.01)			-0.09*** (0.01)			-0.08*** (0.01)
Observations	15868	13725	13290	14369	12243	12094	12802	10801	10657
R-squared	0.18	0.20	0.20	0.18	0.19	0.20	0.18	0.18	0.19
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Contemporaneous ICC

	(1) t+0	(2) t+0	(3) t+0
Inside view E	-0.01 (0.01)	-0.00 (0.01)	-0.01 (0.01)
Inside view S	-0.01* (0.01)	-0.01 (0.01)	0.01 (0.01)
Inside view G	-0.08*** (0.01)	-0.07*** (0.01)	-0.05*** (0.01)
MSCI E		-0.03** (0.01)	-0.02 (0.01)
MSCI S		-0.06*** (0.01)	-0.05*** (0.01)
MSCI G		-0.02 (0.01)	-0.02 (0.01)
Overall rating			-0.09*** (0.01)
Observations	15748	13857	13421
R-squared	0.18	0.20	0.21
Ind*year FE	yes	yes	yes
Controls	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA11: ESG inside views and AAERs

This table reports firm-year Poisson regressions analogous to Table 6, with left-hand-side variable being the number of SEC enforcement actions (AAERs) per firm-year in the future years relative to the year the right-hand-side variables are measured (year t). Panel A focuses on AAERs up to 3 years ahead ($t+1$ to $t+3$). Panel B focuses on AAERs up to 6 years ahead ($t+4$ to $t+6$), which may be necessary as AAERs may be announced many years after the actual accounting irregularities occurred. Data on AAERs are from the USC Accounting Department, extending Dechow et al. (2011) data up to 2021. The test sample is between 2009 and 2021.

Panel A: Count of AAERs up to 3 years ahead

	(1) $t+1$	(2) $t+1$	(3) $t+1$	(4) $t+2$	(5) $t+2$	(6) $t+2$	(7) $t+3$	(8) $t+3$	(9) $t+3$
Inside view G	-0.08 (0.12)	-0.03 (0.11)	0.03 (0.11)	-0.38** (0.15)	-0.26 (0.18)	-0.33** (0.17)	-0.49*** (0.12)	-0.49*** (0.14)	-0.43** (0.21)
MSCI G		-0.46** (0.22)	-0.46** (0.22)		0.31 (0.25)	0.19 (0.26)		-0.35 (0.26)	-0.42 (0.27)
Overall rating			-0.23 (0.14)			-0.15 (0.25)			-0.18 (0.27)
Observations	10832	8168	7883	9655	7196	7112	8594	6956	6667
Pseudo R ²	0.10	0.08	0.08	0.09	0.06	0.07	0.08	0.10	0.10
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Count of AAERs up to 6 years ahead

	(1) $t+4$	(2) $t+4$	(3) $t+4$	(4) $t+5$	(5) $t+5$	(6) $t+5$	(7) $t+6$	(8) $t+6$	(9) $t+6$
Inside view G	-0.37*** (0.11)	-0.32** (0.14)	-0.21 (0.17)	-0.25* (0.13)	-0.48*** (0.17)	-0.42** (0.19)	-0.18 (0.13)	-0.17 (0.18)	-0.15 (0.20)
MSCI G		0.20 (0.28)	-0.10 (0.29)		-0.50* (0.28)	-0.50* (0.27)		-0.03 (0.23)	-0.03 (0.24)
Overall rating			-0.31 (0.20)			-0.31 (0.20)			-0.17 (0.28)
Observations	7491	5983	5718	6086	4398	4353	5350	4253	4169
Pseudo R ²	0.07	0.08	0.08	0.06	0.10	0.11	0.06	0.07	0.08
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA12: Informativeness in subsamples of high vs. low number of reviews

This table presents firm-year level regressions of ESG indicators in years t+1, t+2, or t+3 on the inside view and MSCI rating on the corresponding ESG category at year t. The inside view is interacted with an indicator of whether a firm has above sample median number of reviews (High reviews). To save space, dependent variables are satellite-estimated emissions (Panel A), Best Diversity list (Panel B), and internal control weaknesses count (Panel C). Controls include Fama-French 48 industry and/times year fixed effects, size, and ROA, following Li et al. (2021). Variables are standardized except indicators and counts. Regressions use Poisson for counts, Logit for indicator, and OLS otherwise. Standard errors (in parentheses) are clustered by firms. See IA2 for detailed variable descriptions. Leading zeros are sometimes omitted for table fit.

Panel A: Estimated emissions from satellite imagery (E)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.22* (0.13)	-0.23* (0.12)	-0.22* (0.12)	-0.26** (0.12)	-0.23** (0.09)	-0.24*** (0.09)	0.05 (0.15)	0.03 (0.14)	0.04 (0.13)
High reviews	0.53 (0.73)	0.32 (0.73)	0.37 (0.77)	-0.10 (0.47)	-0.10 (0.44)	-0.19 (0.42)	-1.44** (0.56)	-1.42*** (0.46)	-1.31*** (0.40)
<i>High reviews</i> <i>x Inside view E</i>	0.04 (0.15)	0.04 (0.15)	0.05 (0.16)	0.01 (0.13)	0.04 (0.14)	0.02 (0.14)	-0.48** (0.19)	-0.45** (0.19)	-0.41** (0.20)
MSCI E		-0.19 (0.16)	-0.19 (0.16)		-0.18 (0.16)	-0.18 (0.16)		0.02 (0.15)	0.02 (0.15)
Overall rating			0.17 (0.44)			-0.20 (0.30)			0.25 (0.31)
Observations	1542	1273	1273	1583	1281	1281	1584	1263	1263
Pseudo R ²	0.74	0.75	0.75	0.74	0.75	0.75	0.74	0.76	0.76
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Indicator for Best Companies for Diversity (S)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.58*** (0.08)	0.53*** (0.09)	0.32*** (0.10)	0.74*** (0.25)	0.59** (0.25)	0.46* (0.24)	0.25* (0.15)	0.20 (0.19)	0.04 (0.20)
High reviews	2.92*** (0.97)	2.66*** (0.97)	2.79*** (0.98)	1.24*** (0.47)	1.29** (0.51)	1.55** (0.62)	1.04** (0.42)	1.24** (0.53)	1.36** (0.61)
<i>High reviews</i> <i>x Inside view</i>	1.12*** (0.23)	1.17*** (0.27)	0.90*** (0.25)	0.89*** (0.33)	0.93*** (0.34)	0.55 (0.36)	1.23*** (0.26)	1.22*** (0.29)	1.00*** (0.28)
MSCI S		0.29 (0.18)	0.29 (0.20)		0.29 (0.20)	0.31 (0.21)		0.26 (0.21)	0.23 (0.21)
Overall rating			1.44*** (0.26)			1.48*** (0.26)			1.16*** (0.23)
Observations	4843	4017	4017	4820	3899	3899	4722	3780	3780
Pseudo R ²	0.24	0.24	0.29	0.22	0.21	0.27	0.21	0.21	0.25
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Panel C: Number of internal control weaknesses (G)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view G	-0.25*** (0.07)	-0.20*** (0.08)	-0.17** (0.08)	-0.13** (0.07)	-0.09 (0.09)	-0.06 (0.09)	-0.09 (0.06)	-0.11 (0.07)	-0.10 (0.08)
High reviews	0.12 (0.17)	0.10 (0.20)	0.11 (0.20)	0.23 (0.18)	0.13 (0.22)	0.14 (0.22)	0.08 (0.20)	-0.08 (0.24)	-0.08 (0.24)
<i>High reviews</i> <i>x Inside view G</i>	-0.41*** (0.15)	-0.48*** (0.17)	-0.44** (0.18)	-0.47*** (0.13)	-.68*** (0.16)	-.63*** (0.18)	-.74*** (0.14)	-.87*** (0.19)	-.84*** (0.19)
MSCI G		-0.09 (0.12)	-0.08 (0.12)		0.05 (0.11)	0.05 (0.11)		-0.02 (0.11)	-0.02 (0.11)
Overall rating			-0.14* (0.08)			-0.17* (0.10)			-0.09 (0.09)
Observations	11634	8713	8713	10380	7454	7454	8989	6461	6461
Pseudo R ²	0.16	0.18	0.18	0.16	0.18	0.18	0.16	0.18	0.18
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA13: Informativeness of GenAI-based ESG inside view measures

This table presents firm-year level regressions of ESG indicators in years t+1, t+2, or t+3 on the GenAI-based inside view and MSCI rating on the corresponding ESG category at year t. The inside view measure is constructed using Generative AI as described in IA7. To save space, dependent variables are satellite-estimated emissions (Panel A), Best Diversity list (Panel B), and internal control weaknesses count (Panel C). Controls include Fama-French 48 industry and/times year fixed effects, size, and ROA, following Li et al. (2021). Variables are standardized except indicators and counts. Regressions use Poisson for counts, Logit for indicator, and OLS otherwise. Standard errors (in parentheses) are clustered by firms. See IA2 for detailed variable descriptions.

Panel A: Estimated emissions from satellite imagery (E)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
GenAI Inside view E	-0.06 (0.12)	-0.10 (0.10)	-0.10 (0.09)	-0.01 (0.13)	-0.01 (0.08)	-0.02 (0.08)	0.04 (0.23)	0.03 (0.20)	0.01 (0.19)
MSCI E		-0.14 (0.16)	-0.16 (0.15)		-0.20 (0.16)	-0.20 (0.15)		-0.11 (0.19)	-0.09 (0.17)
Overall rating			0.32 (0.29)			0.13 (0.35)			0.56* (0.33)
Observations	1627	1349	1268	1577	1277	1276	1578	1261	1259
Pseudo R ²	0.72	0.74	0.75	0.72	0.74	0.74	0.70	0.72	0.73
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Indicator for Best Companies for Diversity (S)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
GenAI Inside view S	1.17*** (0.16)	1.31*** (0.20)	0.62*** (0.23)	0.97*** (0.17)	1.04*** (0.20)	0.32 (0.23)	0.77*** (0.15)	0.82*** (0.19)	0.31 (0.20)
MSCI S		0.42** (0.18)	0.42** (0.19)		0.41** (0.20)	0.42** (0.21)		0.40* (0.21)	0.36* (0.22)
Overall rating			1.35*** (0.24)			1.42*** (0.22)			1.09*** (0.18)
Observations	4818	3999	3998	4789	3877	3876	4700	3764	3754
Pseudo R ²	0.20	0.21	0.25	0.19	0.19	0.25	0.18	0.18	0.22
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel C: Number of internal control weaknesses (G)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
GenAI Inside view G	-0.35*** (0.05)	-0.37*** (0.07)	-0.32*** (0.08)	-0.25*** (0.06)	-0.22*** (0.06)	-0.15** (0.07)	-0.17** (0.07)	-0.10 (0.07)	-0.05 (0.08)
MSCI G		-0.12 (0.12)	-0.12 (0.13)		0.08 (0.12)	0.03 (0.12)		-0.00 (0.11)	-0.02 (0.12)
Overall rating			-0.16* (0.08)			-0.26*** (0.09)			-0.22** (0.09)
Observations	11676	8721	8625	10440	7477	7375	9110	6512	6399
Pseudo R ²	0.16	0.18	0.18	0.15	0.17	0.17	0.14	0.15	0.16
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA14: Informativeness of GenAI-based vs. baseline ESG inside view measures

This table performs horse race between GenAI-based inside view measures and baseline inside view measures in the tests similar to the previous table. The GenAI measure is described in IA7. To save space, dependent variables are satellite-estimated emissions (Panel A), Best Diversity list (Panel B), and internal control weaknesses count (Panel C). Controls include Fama-French 48 industry and/times year fixed effects, size, and ROA, following Li et al. (2021). Variables are standardized except indicators and counts. Regressions use Poisson for counts, Logit for indicator, and OLS otherwise. Standard errors (in parentheses) are clustered by firms. Leading zeros are sometimes dropped for fit.

Panel A: Estimated emissions from satellite imagery (E)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Baseline E	-0.19** (0.08)	-0.19** (0.09)	-0.18 (0.13)	-0.27*** (0.09)	-0.22*** (0.08)	-0.24*** (0.06)	-0.12 (0.22)	-0.11 (0.19)	-0.08 (0.16)
GenAI E	0.02 (0.10)	0.00 (0.10)	-0.01 (0.10)	-0.01 (0.11)	-0.00 (0.08)	0.00 (0.08)	0.07 (0.24)	0.07 (0.21)	0.04 (0.20)
MSCI E		-0.18 (0.16)	-0.20 (0.16)		-0.17 (0.14)	-0.17 (0.14)		-0.11 (0.19)	-0.09 (0.17)
Overall rating			0.12 (0.40)			-0.16 (0.31)			0.51 (0.33)
Observations	1627	1349	1268	1577	1277	1276	1578	1261	1259
Pseudo R ²	0.73	0.74	0.75	0.74	0.75	0.75	0.71	0.73	0.73
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Indicator for Best Companies for Diversity (S)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Baseline S	0.72*** (0.12)	0.68*** (0.13)	0.53*** (0.14)	0.75*** (0.12)	0.65*** (0.12)	0.50*** (0.12)	0.57*** (0.11)	0.54*** (0.13)	0.39*** (0.13)
GenAI S	0.97*** (0.16)	1.09*** (0.20)	0.48** (0.23)	0.77*** (0.17)	0.84*** (0.21)	0.20 (0.23)	0.65*** (0.15)	0.69*** (0.19)	0.26 (0.20)
MSCI S		0.37** (0.18)	0.39** (0.19)		0.37* (0.20)	0.39* (0.21)		0.36* (0.22)	0.34 (0.22)
Overall rating			1.26*** (0.24)			1.36*** (0.23)			1.03*** (0.19)
Observations	4818	3999	3998	4789	3877	3876	4700	3764	3754
Pseudo R ²	0.22	0.22	0.26	0.21	0.20	0.25	0.19	0.19	0.22
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel C: Number of internal control weaknesses (G)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Baseline G	-0.24*** (0.06)	-0.23*** (0.07)	-0.22*** (0.08)	-0.17*** (0.07)	-0.23*** (0.09)	-0.19** (0.09)	-0.19*** (0.07)	-0.30*** (0.09)	-0.29*** (0.09)
GenAI G	-0.26*** (0.05)	-0.28*** (0.07)	-0.25*** (0.07)	-0.19*** (0.06)	-0.15** (0.07)	-0.10 (0.08)	-0.11 (0.07)	-0.00 (0.08)	0.03 (0.08)
MSCI G		-0.12 (0.12)	-0.12 (0.13)		0.07 (0.12)	0.03 (0.12)		0.01 (0.11)	-0.01 (0.12)
Overall rating			-0.11 (0.08)			-0.22** (0.09)			-0.17* (0.09)
Observations	11676	8721	8625	10440	7477	7375	9110	6512	6399
Pseudo R ²	0.17	0.18	0.18	0.16	0.17	0.17	0.15	0.16	0.16
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Table IA15: Informativeness of unscaled ESG inside view measures

This table presents firm-year level regressions of ESG indicators in years t+1, t+2, or t+3 on the unscaled inside view (simply count of ESG key words in the pros section minus that in the cons section, averaged across reviews in each firm-year, winsorized at 1st and 99th percentiles) and MSCI rating on the corresponding ESG category at year t. To save space, dependent variables are satellite-estimated emissions (Panel A), Best Diversity list (Panel B), and internal control weaknesses count (Panel C). Controls include Fama-French 48 industry and/times year fixed effects, size, and ROA, following Li et al. (2021). Variables are standardized except indicators and counts. Regressions use Poisson for counts, Logit for indicator, and OLS otherwise. Standard errors (in parentheses) are clustered by firms. See IA2 for detailed variable descriptions. Some leading zeros are dropped for table fit.

Panel A: Estimated emissions from satellite imagery (E)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Unscaled Inside view E	-0.13 (0.13)	-0.13 (0.13)	-0.14 (0.12)	-0.15* (0.09)	-0.10 (0.10)	-0.09 (0.09)	-0.10 (0.26)	-0.10 (0.21)	-0.08 (0.18)
MSCI E		-0.13 (0.16)	-0.15 (0.15)		-0.20 (0.16)	-0.20 (0.16)		-0.11 (0.19)	-0.09 (0.17)
Overall rating			0.32 (0.30)			0.10 (0.35)			0.54* (0.32)
Observations	1632	1354	1273	1584	1282	1281	1586	1265	1263
Pseudo R ²	0.72	0.74	0.75	0.72	0.74	0.74	0.70	0.73	0.73
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Indicator for Best Companies for Diversity (S)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Unscaled Inside view S	1.14*** (0.15)	1.13*** (0.17)	0.32* (0.19)	1.09*** (0.15)	1.02*** (0.16)	0.37** (0.17)	0.76*** (0.13)	0.64*** (0.15)	0.10 (0.16)
MSCI S		0.41** (0.18)	0.43** (0.19)		0.41** (0.20)	0.41** (0.21)		0.38* (0.21)	0.36* (0.21)
Overall rating			1.46*** (0.25)			1.40*** (0.23)			1.18*** (0.19)
Observations	4844	4018	4017	4821	3900	3899	4736	3790	3780
Pseudo R ²	0.20	0.20	0.25	0.20	0.19	0.25	0.18	0.17	0.21
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel C: Number of internal control weaknesses (G)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Unscaled Inside view G	-0.28*** (0.05)	-0.21*** (0.06)	-0.13* (0.07)	-0.22*** (0.05)	-0.24*** (0.07)	-0.16* (0.09)	-.18*** (0.06)	-.21*** (0.08)	-.18** (0.09)
MSCI G		-0.10 (0.12)	-0.09 (0.12)		0.07 (0.11)	0.03 (0.12)		-0.01 (0.11)	-0.03 (0.11)
Overall rating			-0.21*** (0.08)			-0.21** (0.10)			-0.13 (0.10)
Observations	11808	8811	8713	10568	7560	7454	9212	6576	6461
Pseudo R ²	0.16	0.17	0.17	0.15	0.17	0.17	0.14	0.16	0.16
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Table IA16: Informativeness of unscaled vs. baseline ESG inside view measures

This table performs horse race between unscaled inside view measures and baseline inside view measures in the tests similar to the previous table. The unscaled measure is simply count of ESG key words in the pros section minus that in the cons section, averaged across reviews in each firm-year, winsorized at 1st and 99th percentiles. Everything else is similar to Table IA15.

Panel A: Estimated emissions from satellite imagery (E)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Baseline E	-.25*** (0.09)	-0.27** (0.11)	-0.26 (0.17)	-0.42*** (0.15)	-0.39*** (0.09)	-0.50*** (0.13)	-0.12 (0.18)	-0.11 (0.17)	-0.07 (0.18)
Unscaled E	0.15 (0.18)	0.18 (0.18)	0.15 (0.19)	0.22 (0.18)	0.27** (0.13)	0.35* (0.18)	0.01 (0.25)	0.01 (0.23)	-0.01 (0.23)
MSCI E		-0.20 (0.17)	-0.21 (0.17)		-0.14 (0.15)	-0.13 (0.14)		-0.11 (0.19)	-0.09 (0.17)
Overall rating			0.07 (0.42)			-0.38 (0.37)			0.52 (0.33)
Observations	1632	1354	1273	1584	1282	1281	1586	1265	1263
Pseudo R ²	0.73	0.74	0.75	0.74	0.76	0.76	0.71	0.73	0.73
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Indicator for Best Companies for Diversity (S)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Baseline S	0.53*** (0.15)	0.54*** (0.16)	0.77*** (0.19)	0.45*** (0.14)	0.38** (0.16)	0.60*** (0.15)	0.37** (0.17)	0.48*** (0.18)	0.62*** (0.16)
Unscaled S	0.76*** (0.18)	0.74*** (0.19)	-0.34 (0.23)	0.78*** (0.18)	0.74*** (0.20)	-0.14 (0.19)	0.49** (0.20)	0.29 (0.20)	-0.37** (0.17)
MSCI S		0.39** (0.18)	0.39** (0.19)		0.40** (0.20)	0.39* (0.21)		0.37* (0.21)	0.34 (0.22)
Overall rating			1.56*** (0.25)			1.48*** (0.23)			1.24*** (0.19)
Observations	4844	4018	4017	4821	3900	3899	4736	3790	3780
Pseudo R ²	0.20	0.20	0.26	0.20	0.19	0.25	0.18	0.18	0.22
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel C: Number of internal control weaknesses (G)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Baseline G	-.24*** (0.09)	-.33*** (0.09)	-.35*** (0.10)	-0.15** (0.07)	-0.17* (0.09)	-0.20** (0.09)	-0.18** (0.07)	-0.25*** (0.10)	-0.28*** (0.10)
Unscaled G	-0.13* (0.08)	-0.00 (0.08)	0.09 (0.09)	-0.12* (0.07)	-0.13 (0.08)	-0.02 (0.09)	-0.06 (0.07)	-0.05 (0.09)	0.00 (0.11)
MSCI G		-0.09 (0.12)	-0.09 (0.12)		0.07 (0.11)	0.04 (0.12)		-0.00 (0.11)	-0.02 (0.11)
Overall rating			-.20*** (0.08)			-0.22** (0.10)			-0.15 (0.10)
Observations	11808	8811	8713	10568	7560	7454	9212	6576	6461
Pseudo R ²	0.16	0.17	0.18	0.15	0.17	0.17	0.14	0.16	0.16
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Table IA17: Informativeness of ESG inside view measures – removing 5-star reviews

This table presents firm-year level regressions of ESG indicators in years t+1, t+2, or t+3 on the inside view measure in year t constructed as in the baseline, but removing 5-star reviews from any calculations. To save space, dependent variables are satellite-estimated emissions (Panel A), Best Diversity list (Panel B), and internal control weaknesses count (Panel C). Controls include Fama-French 48 industry and/times year fixed effects, size, and ROA, following Li et al. (2021). Variables are standardized except indicators and counts. Regressions use Poisson for counts, Logit for indicator, and OLS otherwise. Standard errors (in parentheses) are clustered by firms. See IA2 for detailed variable descriptions. Some leading zeros are dropped for table fit.

Panel A: Estimated emissions from satellite imagery (E)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.28*** (0.11)	-0.30*** (0.11)	-0.27* (0.14)	-0.08 (0.12)	-0.02 (0.12)	-0.02 (0.12)	-0.01 (0.18)	-0.02 (0.14)	-0.01 (0.12)
MSCI E		-0.17 (0.15)	-0.18 (0.15)		-0.20 (0.17)	-0.20 (0.16)		-0.12 (0.18)	-0.09 (0.16)
Overall rating			0.23 (0.38)			0.12 (0.36)			0.56* (0.33)
Observations	1540	1271	1271	1582	1280	1280	1582	1262	1262
Pseudo R ²	0.74	0.75	0.76	0.72	0.74	0.74	0.70	0.72	0.73
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Indicator for Best Companies for Diversity (S)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.76*** (0.11)	0.76*** (0.12)	0.51*** (0.12)	0.74*** (0.12)	0.67*** (0.12)	0.42*** (0.11)	0.52*** (0.12)	0.50*** (0.14)	0.27** (0.13)
MSCI S		0.40** (0.17)	0.41** (0.19)		0.40** (0.19)	0.39* (0.21)		0.39* (0.21)	0.34 (0.21)
Overall rating			1.55*** (0.23)			1.57*** (0.24)			1.25*** (0.20)
Observations	4840	4016	4016	4812	3894	3894	4708	3770	3770
Pseudo R ²	0.18	0.18	0.26	0.18	0.17	0.25	0.17	0.16	0.22
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel C: Number of internal control weaknesses (G)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view G	-0.30*** (0.07)	-0.29*** (0.08)	-0.24*** (0.08)	-0.21*** (0.06)	-0.23*** (0.08)	-0.18** (0.08)	-0.22*** (0.06)	-0.27*** (0.08)	-0.24*** (0.08)
MSCI G		-0.09 (0.12)	-0.09 (0.13)		0.05 (0.12)	0.05 (0.12)		-0.02 (0.12)	-0.01 (0.12)
Overall rating			-0.23*** (0.07)			-0.28*** (0.09)			-0.21** (0.09)
Observations	11560	8667	8667	10302	7409	7409	8888	6393	6393
Pseudo R ²	0.15	0.17	0.17	0.15	0.16	0.17	0.14	0.16	0.16
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Table IA18: Informativeness in subsample with high employee growth

This table presents firm-year level regressions of ESG indicators in years t+1, t+2, or t+3 on the inside view and MSCI rating on the corresponding ESG category at year t. The sample is restricted to firm-years when a firm has above sample median employee growth in a year. To save space, dependent variables are satellite-estimated emissions (Panel A), Best Diversity list (Panel B), and internal control weaknesses count (Panel C). Controls include Fama-French 48 industry and/times year fixed effects, size, and ROA, following Li et al. (2021). Variables are standardized except indicators and counts. Regressions use Poisson for counts, Logit for indicator, and OLS otherwise. Standard errors (in parentheses) are clustered by firms. See IA2 for detailed variable descriptions. Leading zeros are sometimes omitted for table fit.

Panel A: Estimated emissions from satellite imagery (E)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.28* (0.15)	-0.19 (0.16)	-0.17 (0.17)	-0.50*** (0.14)	-0.51*** (0.14)	-0.46*** (0.13)	-0.39** (0.17)	-0.42** (0.16)	-0.33** (0.15)
MSCI E		0.46* (0.25)	0.44 (0.27)		0.24 (0.24)	0.29 (0.25)		-0.43 (0.34)	-0.30 (0.26)
Overall rating			0.38 (0.52)			0.55 (0.47)			0.88** (0.44)
Observations	401	310	306	471	370	369	504	419	418
Pseudo R ²	0.90	0.91	0.91	0.83	0.83	0.84	0.60	0.67	0.71
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Indicator for Best Companies for Diversity (S)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.98*** (0.15)	1.02*** (0.17)	0.76*** (0.17)	0.91*** (0.14)	0.86*** (0.14)	0.63*** (0.15)	0.66*** (0.11)	0.71*** (0.13)	0.52*** (0.14)
MSCI S		0.39* (0.21)	0.38 (0.23)		0.43** (0.19)	0.44** (0.21)		0.47** (0.22)	0.44** (0.22)
Overall rating			1.10*** (0.26)			1.11*** (0.26)			0.73*** (0.20)
Observations	2444	2121	2120	2520	2160	2159	2547	2165	2155
Pseudo R ²	0.22	0.23	0.27	0.22	0.23	0.27	0.21	0.22	0.24
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel C: Number of internal control weaknesses (G)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view G	-0.27*** (0.08)	-0.34*** (0.08)	-0.31*** (0.09)	-0.23*** (0.07)	-0.25*** (0.09)	-0.17* (0.09)	-0.31*** (0.10)	-0.40*** (0.13)	-0.38*** (0.13)
MSCI G		0.09 (0.15)	0.09 (0.16)		-0.12 (0.18)	-0.17 (0.20)		-0.20 (0.14)	-0.23* (0.14)
Overall rating			-0.10 (0.11)			-0.34*** (0.12)			-0.36*** (0.10)
Observations	4172	3300	3249	3968	3177	3114	3503	2636	2470
Pseudo R ²	0.19	0.21	0.21	0.16	0.18	0.19	0.18	0.19	0.20
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Table IA19: Informativeness of ESG inside view measures – removing reviews by former employees

This table presents firm-year level regressions of ESG indicators in years t+1, t+2, or t+3 on the inside view in year t constructed similar to the baseline inside view measure but only after removing all reviews by a firm's former employees. To save space, dependent variables are satellite-estimated emissions (Panel A), Best Diversity list (Panel B), and internal control weaknesses count (Panel C). Controls include Fama-French 48 industry and/times year fixed effects, size, and ROA, following Li et al. (2021). Variables are standardized except indicators and counts. Regressions use Poisson for counts, Logit for indicator, and OLS otherwise. Standard errors (in parentheses) are clustered by firms. See IA2 for detailed variable descriptions. Some leading zeros are dropped for table fit.

Panel A: Estimated emissions from satellite imagery (E)									
	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.20*** (0.05)	-0.21*** (0.06)	-0.19** (0.08)	-0.11 (0.13)	-0.07 (0.11)	-0.07 (0.11)	-0.05 (0.14)	-0.05 (0.12)	-0.02 (0.11)
MSCI E		-0.20 (0.16)	-0.20 (0.16)		-0.20 (0.16)	-0.20 (0.16)		-0.11 (0.19)	-0.09 (0.17)
Overall rating			0.19 (0.37)			0.04 (0.35)			0.55* (0.33)
Observations	1536	1267	1267	1580	1278	1278	1577	1258	1258
Pseudo R ²	0.74	0.75	0.75	0.72	0.74	0.74	0.70	0.72	0.73
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes
Panel B: Indicator for Best Companies for Diversity (S)									
	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.88*** (0.12)	0.87*** (0.14)	0.57*** (0.14)	0.80*** (0.10)	0.74*** (0.11)	0.45*** (0.11)	0.60*** (0.09)	0.58*** (0.10)	0.34*** (0.11)
MSCI S		0.39** (0.17)	0.41** (0.19)		0.40** (0.19)	0.41* (0.21)		0.39* (0.21)	0.36 (0.22)
Overall rating			1.47*** (0.23)			1.50*** (0.23)			1.18*** (0.19)
Observations	4835	4013	4013	4796	3887	3887	4689	3762	3762
Pseudo R ²	0.19	0.19	0.26	0.18	0.18	0.25	0.17	0.17	0.22
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes
Panel C: Number of internal control weaknesses (G)									
	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view G	-0.35*** (0.06)	-0.32*** (0.07)	-0.27*** (0.08)	-0.27*** (0.07)	-0.31*** (0.09)	-.25** (0.10)	-.26*** (0.07)	-.33*** (0.10)	-.29*** (0.10)
MSCI G		-0.10 (0.12)	-0.09 (0.12)		0.04 (0.11)	0.03 (0.12)		-0.02 (0.11)	-0.03 (0.11)
Overall rating			-0.19** (0.07)			-.23** (0.10)			-0.15 (0.09)
Observations	11556	8664	8664	10315	7390	7390	8940	6441	6441
Pseudo R ²	0.16	0.17	0.18	0.15	0.17	0.17	0.15	0.16	0.16
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Table IA20: Informativeness of ESG inside view measures – sample post 2015

This table presents firm-year level regressions of ESG indicators in years t+1, t+2, or t+3 on the inside view in year t as well as other variables, but focuses on the subsample of firm-years after 2015. To save space, dependent variables are satellite-estimated emissions (Panel A), Best Diversity list (Panel B), and internal control weaknesses count (Panel C). Controls include Fama-French 48 industry and/times year fixed effects, size, and ROA, following Li et al. (2021). Variables are standardized except indicators and counts. Regressions use Poisson for counts, Logit for indicator, and OLS otherwise. Standard errors (in parentheses) are clustered by firms. See IA2 for detailed variable descriptions. Some leading zeros are dropped for table fit.

Panel A: Estimated emissions from satellite imagery (E)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.16** (0.08)	-0.17* (0.10)	-0.19 (0.14)	-0.31*** (0.11)	-0.23** (0.09)	-0.29*** (0.08)	-0.12 (0.27)	-0.11 (0.21)	-0.07 (0.16)
MSCI E		-0.18 (0.19)	-0.19 (0.18)		-0.22 (0.17)	-0.22 (0.16)		-0.12 (0.25)	-0.12 (0.22)
Overall rating			0.02 (0.40)			-0.41 (0.41)			0.69 (0.53)
Observations	1357	1122	1041	1175	937	937	1045	812	812
Pseudo R ²	0.74	0.75	0.76	0.74	0.75	0.75	0.71	0.74	0.75
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Indicator for Best Companies for Diversity (S)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	1.03*** (0.15)	1.01*** (0.16)	0.56*** (0.16)	1.00*** (0.18)	0.94*** (0.19)	0.50*** (0.18)	0.80*** (0.24)	0.71*** (0.26)	0.30 (0.30)
MSCI S		0.34* (0.18)	0.37* (0.20)		0.37* (0.22)	0.39 (0.24)		0.12 (0.26)	0.07 (0.27)
Overall rating			1.53*** (0.25)			1.66*** (0.31)			1.21*** (0.29)
Observations	2901	2463	2463	1828	1517	1517	916	756	756
Pseudo R ²	0.19	0.19	0.26	0.17	0.17	0.26	0.18	0.16	0.20
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel C: Number of internal control weaknesses (G)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view G	-.47*** (0.08)	-.48*** (0.10)	-.40*** (0.12)	-0.32*** (0.11)	-0.31** (0.14)	-0.17 (0.20)	-0.54*** (0.14)	-0.78*** (0.20)	-0.72*** (0.20)
MSCI G		-0.09 (0.15)	-0.08 (0.16)		-0.07 (0.18)	-0.05 (0.18)		-0.20 (0.16)	-0.18 (0.16)
Overall rating			-0.20 (0.14)			-0.35* (0.21)			-0.21 (0.25)
Observations	4880	3915	3915	3472	2670	2670	2215	1638	1638
Pseudo R ²	0.15	0.17	0.17	0.14	0.14	0.15	0.18	0.19	0.19
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Table IA21: Informativeness of ESG inside view measures – separating pros and cons

This table presents firm-year regressions of ESG outcomes in years t+1, t+2, or t+3 on the inside view in year t, split into pros and cons. Dependent variables are satellite-estimated emissions (Panel A), Best Diversity list (Panel B), and internal control weaknesses (Panel C). Controls include Fama-French 48 industry/year fixed effects, size, and ROA (Li et al. 2021). Variables are standardized except indicators and counts. Regressions use Poisson for counts, Logit for indicators, and OLS otherwise. Standard errors are clustered by firm. Some leading zeros are dropped for table fit.

Panel A: Estimated emissions from satellite imagery (E)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
E pros	-0.29 (0.19)	-0.40* (0.23)	-0.42* (0.23)	-0.19 (0.16)	-0.17 (0.15)	-0.18 (0.15)	0.03 (0.23)	0.07 (0.16)	0.09 (0.14)
E cons	0.13* (0.07)	0.10 (0.08)	0.07 (0.09)	0.24** (0.10)	0.18* (0.10)	0.19** (0.09)	0.17 (0.16)	0.17 (0.12)	0.14 (0.10)
MSCI E		-0.19 (0.15)	-0.21 (0.14)		-0.18 (0.14)	-0.18 (0.14)		-0.11 (0.17)	-0.08 (0.15)
Overall rating			0.20 (0.38)			-0.12 (0.30)			0.53 (0.35)
Observations	1632	1354	1273	1584	1282	1281	1586	1265	1263
Pseudo R ²	0.73	0.75	0.76	0.74	0.75	0.75	0.71	0.73	0.74
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Indicator for Best Companies for Diversity (S)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
S pros	0.56*** (0.13)	0.54*** (0.14)	0.38*** (0.14)	0.57*** (0.12)	0.45*** (0.14)	0.35*** (0.12)	0.38*** (0.11)	0.35*** (0.14)	0.25* (0.13)
S cons	1.36*** (0.22)	1.42*** (0.25)	0.78*** (0.24)	1.21*** (0.20)	1.26*** (0.22)	0.60*** (0.19)	1.06*** (0.19)	1.03*** (0.21)	0.54*** (0.18)
MSCI S		0.40** (0.18)	0.41** (0.20)		0.40** (0.20)	0.39* (0.21)		0.38* (0.21)	0.35 (0.22)
Overall rating			1.39*** (0.23)			1.39*** (0.22)			1.07*** (0.18)
Observations	4844	4018	4017	4821	3900	3899	4736	3790	3780
Pseudo R ²	0.20	0.20	0.26	0.20	0.19	0.25	0.18	0.18	0.22
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel C: Number of internal control weaknesses (G)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
G pros	-0.29*** (0.08)	-0.27*** (0.09)	-0.21** (0.09)	-0.30*** (0.08)	-0.31*** (0.11)	-0.25** (0.12)	-0.25*** (0.08)	-0.27*** (0.10)	-0.21* (0.11)
G cons	0.24*** (0.05)	0.25*** (0.06)	0.22*** (0.06)	0.13** (0.06)	0.15** (0.08)	0.13* (0.08)	0.13** (0.06)	0.19** (0.08)	0.20*** (0.07)
MSCI G		-0.09 (0.12)	-0.09 (0.12)		0.08 (0.11)	0.04 (0.12)		0.00 (0.11)	-0.02 (0.11)
Overall rating			-0.18** (0.07)			-0.21** (0.09)			-0.15 (0.09)
Observations	11808	8811	8713	10568	7560	7454	9212	6576	6461
Pseudo R ²	0.16	0.17	0.18	0.15	0.17	0.17	0.14	0.16	0.16
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Table IA22: ESG inside views and alternative measures of stock returns

This table reports firm-year regressions analogous to Table 8, with the left-hand-side variable being different measures of a firm's stock return performance. Panel A focuses on Carhart alpha, which is the average daily Carhart alpha of a firm's stock in a given year. Daily Carhart alpha is estimated using a Carhart model estimated on daily return data in the previous calendar year. Panel B focuses on Sharpe ratio, which is the average excess daily return (relative to the risk-free rate from Kenth French website) divided by the standard deviation of excess daily returns during a given calendar year. These dependent variables are standardized to have a zero mean and a unit standard deviation.

Panel A: Carhart alpha

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	-0.00 (0.01)
Inside view S	-0.01 (0.01)	-0.01** (0.01)	-0.02*** (0.01)	0.01 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	-0.00 (0.01)	-0.01 (0.01)
Inside view G	0.01* (0.01)	0.02** (0.01)	0.02** (0.01)	0.00 (0.01)	-0.00 (0.01)	-0.01 (0.01)	0.01 (0.01)	-0.00 (0.01)	-0.01 (0.01)
MSCI E		0.01 (0.01)	0.01 (0.01)		0.01 (0.01)	0.01 (0.01)		0.01* (0.01)	0.02* (0.01)
MSCI S		-0.00 (0.01)	-0.00 (0.01)		-0.00 (0.01)	-0.00 (0.01)		-0.01 (0.01)	-0.01 (0.01)
MSCI G		-0.01 (0.01)	-0.01 (0.01)		0.00 (0.01)	0.00 (0.01)		0.00 (0.01)	0.00 (0.01)
Overall rating			0.01 (0.01)			0.00 (0.01)			0.01 (0.01)
Observations	16672	14258	13809	15265	12730	12576	13612	11214	11062
R-squared	0.07	0.09	0.09	0.07	0.08	0.08	0.07	0.08	0.08
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Sharpe ratio

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	-0.00 (0.01)
Inside view S	-0.00 (0.01)	-0.01* (0.01)	-0.02*** (0.01)	0.01* (0.01)	0.01 (0.01)	0.01 (0.01)	-0.00 (0.01)	-0.01 (0.01)	-0.02** (0.01)
Inside view G	0.03*** (0.01)	0.02** (0.01)	0.01* (0.01)	0.02** (0.01)	0.01 (0.01)	0.01 (0.01)	0.02*** (0.01)	0.01 (0.01)	0.00 (0.01)
MSCI E		0.01 (0.01)	0.01 (0.01)		0.02* (0.01)	0.01* (0.01)		0.02** (0.01)	0.02** (0.01)
MSCI S		0.01 (0.01)	0.01 (0.01)		0.01 (0.01)	0.01 (0.01)		-0.01 (0.01)	-0.01 (0.01)
MSCI G		0.00 (0.01)	0.00 (0.01)		0.00 (0.01)	-0.00 (0.01)		0.00 (0.01)	0.00 (0.01)
Overall rating			0.02*** (0.01)			0.02** (0.01)			0.02** (0.01)
Observations	17015	14268	13819	15333	12726	12572	13636	11210	11058
R-squared	0.27	0.31	0.31	0.28	0.30	0.30	0.29	0.31	0.31
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA23: The Business Roundtable analysis – with matching

This table replicates Table 9's tests on a matched sample, examining whether BRT firms saw larger improvements in ESG inside views than controls. We use propensity score matching within industry-year, based on covariates from Raghunandan and Rajgopal (2021), matching each treated firm with up to 10 controls using a 0.1 caliper. Panel A shows covariate balance before and after matching. Panel B presents cross-sectional regressions where the dependent variable is the change in employees' views of E, S, or G between 2018 and 2020. The main regressor is an indicator for whether a firm signed the 2019 BRT statement redefining corporate purpose. Controls include 2018 firm characteristics: size (log assets), Tobin's Q, ROA, leverage, and sales growth. All regressions include Fama-French 48 industry fixed effects. Some specifications include interactions between the BRT indicator and above-median values of institutional ownership, analyst coverage, organizational complexity, or advertising intensity (2014–2018).

Panel A: Covariate differences before and after matching

Variable	Before				After			
	Treated	Control	Diff	t-stat	Treated	Control	Diff	t-stat
Size	10.582	7.955	2.627	19.35***	1.121	0.513	0.608	7.24***
Tobin's Q	2.108	2.205	-0.097	-0.78	-0.030	-0.010	-0.021	-0.20
Sale growth	0.097	0.098	-0.002	-0.16	0.163	0.169	-0.006	-0.08
ROA	0.138	0.103	0.035	4.33***	0.161	0.275	-0.114	-1.47
Change ROA	0.008	-0.002	0.010	2.93***	0.007	0.007	0.001	0.16
Leverage	0.324	0.317	0.007	0.36	0.293	0.155	0.138	1.35
Stock return	-0.093	-0.147	0.054	2.35**	-0.092	-0.151	0.059	1.96*
Volatility	0.017	0.024	-0.007	-14.04***	0.018	0.020	-0.002	-3.91***

Panel B: Change in ESG inside views

	(1) E	(2) S	(3) G	(4) E	(5) S	(6) G
BRT	-0.03 (0.17)	-0.00 (0.12)	-0.15 (0.09)	1.30*** (0.42)	-0.05 (0.36)	1.17*** (0.33)
BRT x High institutional ownership				-0.15 (0.40)	-0.17 (0.35)	-0.54 (0.34)
BRT x High analyst coverage				0.80* (0.41)	-1.05* (0.51)	0.34 (0.27)
BRT x High complexity				-1.83*** (0.49)	0.97 (0.58)	-1.26*** (0.19)
BRT x High advertising intensity				-0.34 (0.21)	0.20 (0.29)	-0.30 (0.32)
BRT x High COVID exposure				0.08 (0.36)	0.16 (0.41)	0.28 (0.29)
Observations	367	367	367	295	295	295
R-squared	0.11	0.07	0.10	0.13	0.14	0.13
Controls	yes	yes	yes	yes	yes	yes
Industry F.E.	yes	yes	yes	yes	yes	yes

Table IA24: MSCI ESG ratings around the UNGC commitment

This table repeats Table 10's tests on the same matched sample but focuses on ESG ratings rather than ESG inside views. Specifically, it examines whether UNGC firms saw larger improvements in MSCI ESG ratings than controls (Panel A), and whether such firms have better ESG ratings before joining (Panel B). All regressions include Fama-French 48 industry fixed effects. Controls, when included, are ROA and size. Some specifications include interactions between the BRT indicator and above-median values of institutional ownership, analyst coverage, organizational complexity, or advertising intensity (measured over three years before the UNGC joining year).

Panel A: MSCI ESG ratings change after firms joined the UNGC

	(1) E	(2) S	(3) G	(4) E	(5) S	(6) G	(7) E	(8) S	(9) G
UNGC	-0.09 (0.14)	-0.01 (0.13)	-0.01 (0.16)	-0.12 (0.16)	0.04 (0.14)	-0.04 (0.18)	0.30 (0.55)	0.96** (0.45)	-0.03 (0.39)
x High inst. ownership							-0.11 (0.40)	-0.22 (0.30)	-0.30 (0.35)
x High analyst coverage							-0.45 (0.31)	-0.55* (0.31)	-0.32 (0.32)
x High complexity							-0.21 (0.38)	-0.64* (0.35)	0.16 (0.30)
x High advertising intensity							0.13 (0.30)	0.07 (0.26)	0.64* (0.35)
Observations	306	306	303	306	306	303	304	304	301
R-squared	0.16	0.11	0.11	0.16	0.12	0.12	0.18	0.15	0.15
Controls	no	no	no	yes	yes	yes	yes	yes	yes
Industry F.E.	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: MSCI ESG ratings before the UNGC commitment

	(1) E	(2) S	(3) G
UNGC	0.31*** (0.08)	0.22*** (0.07)	0.12* (0.06)
Observations	963	963	956
R-squared	0.31	0.18	0.11
Controls	yes	yes	yes
Industry F.E.	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA25: Covariate balance for UNGC firms and control firms

This table shows covariate balance using firm characteristics averaged over the three years before the UNGC joining year for UNGC firms vs. matched control firms as identified in the main analysis. We can only show covariate balance after the matching, but not before the matching because without matching, the pseudo-treatment year is not well defined for control firms. The propensity score matching is done to identify appropriate control firms for each firm that ever joined the UNGC, by using a logit model based on firm size, ROA, and lagged ESG inside views. Each UNGC firm in its first participation year is matched with up to 10 control firms using propensity scores within a 0.1 caliper in the same year and industry. The final sample includes 612 unique control firms for 122 UNGC firms.

	Treated	Control	Diff	t-stat
Size	0.598	0.155	0.443	4.8***
Tobin's Q	0.053	0.046	0.007	0.08
Sale growth	-0.06	0.006	-0.066	-1.09
ROA	0.139	0.069	0.07	0.74
Change ROA	-0.022	0.025	-0.047	-1.7*
Leverage	-0.13	-0.109	-0.022	-0.3
Stock return	-0.025	0.005	-0.03	-0.58
Volatility	-0.309	-0.097	-0.212	-2.58**

Table IA26: Difference in inside views by current vs. former employees

This table reports the difference in inside view scores between current and former employees, with or without controlling for the overall review rating, at the review level – by regressing the inside view measure on an indicator for whether a review is written by a former employee. All variables are standardized except the indicator variable. Regressions include time (calendar month) fixed effects, and standard errors (in parentheses) are clustered by firm.

	(1)	(2)	(3)	(4)	(5)	(6)
	E view	E view	S view	S view	G view	G view
Former employee Indicator	-0.00 (0.00)	-0.01*** (0.00)	-0.05*** (0.00)	-0.01*** (0.00)	-0.11*** (0.01)	-0.05*** (0.00)
Overall rating		-0.01*** (0.00)		0.10*** (0.00)		0.15*** (0.00)
_cons	0.00 (0.00)	0.00 (0.00)	0.02*** (0.00)	0.00 (0.00)	0.04*** (0.01)	0.02*** (0.01)
Observations	2444040	2444040	2444040	2444040	2444040	2444040
R-squared	0.00	0.00	0.00	0.01	0.00	0.03
Time FE	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA27: Informativeness of ESG inside view measures – removing former employee effect

This table presents firm-year level regressions of ESG indicators in years t+1, t+2, or t+3 on the inside view measure in year t, where the inside view is residualized at the review level for the former employee indicator and overall rating using year-by-year regressions. To save space, dependent variables are satellite-estimated emissions (Panel A), Best Diversity list (Panel B), and internal control weaknesses count (Panel C). Controls include Fama-French 48 industry and year fixed effects, size, and ROA, following Li et al. (2021). Variables are standardized except indicators and counts. Regressions use Poisson for counts, Logit for indicators, and OLS otherwise. Standard errors (in parentheses) are clustered by firm. See IA2 for detailed variable descriptions. Some leading zeros are dropped for table fit.

Panel A: Estimated emissions from satellite imagery (E)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.19*** (0.06)	-0.20*** (0.08)	-0.19 (0.11)	-0.27*** (0.09)	-0.22*** (0.08)	-0.24*** (0.06)	-0.11 (0.21)	-0.10 (0.18)	-0.07 (0.15)
MSCI E		-0.20 (0.16)	-0.20 (0.16)		-0.17 (0.15)	-0.17 (0.15)		-0.11 (0.19)	-0.09 (0.17)
Overall rating			0.13 (0.40)			-0.16 (0.31)			0.52 (0.33)
Observations	1542	1273	1273	1583	1281	1281	1584	1263	1263
Pseudo R ²	0.73	0.75	0.75	0.74	0.75	0.75	0.71	0.73	0.73
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Indicator for Best Companies for Diversity (S)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.74*** (0.12)	0.74*** (0.13)	0.59*** (0.14)	0.71*** (0.11)	0.63*** (0.12)	0.51*** (0.11)	0.52*** (0.11)	0.51*** (0.12)	0.40*** (0.12)
MSCI S		0.40** (0.17)	0.40** (0.19)		0.40** (0.19)	0.39* (0.21)		0.39* (0.21)	0.34 (0.22)
Overall rating			1.55*** (0.23)			1.53*** (0.22)			1.19*** (0.18)
Observations	4843	4017	4017	4820	3899	3899	4722	3780	3780
Pseudo R ²	0.18	0.18	0.26	0.17	0.17	0.25	0.16	0.16	0.22
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel C: Number of internal control weaknesses (G)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view G	-0.30*** (0.06)	-0.30*** (0.07)	-.27*** (0.07)	-.20*** (0.06)	-.23*** (0.09)	-0.20** (0.09)	-.21*** (0.06)	-.27*** (0.09)	-.25*** (0.09)
MSCI G		-0.09 (0.12)	-0.09 (0.12)		0.04 (0.11)	0.04 (0.12)		-0.02 (0.11)	-0.02 (0.11)
Overall rating			-.24*** (0.07)			-.27*** (0.09)			-0.20** (0.09)
Observations	11634	8713	8713	10380	7454	7454	8989	6461	6461
Pseudo R ²	0.15	0.17	0.18	0.15	0.17	0.17	0.14	0.16	0.16
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA28: Informativeness horse race – removing former employee effect vs. baseline

This table presents firm-year level regressions of ESG indicators in years t+1, t+2, or t+3 on both the baseline inside view measure and the residualized inside view measure in year t, included simultaneously. The residualized measure is constructed by adjusting review-level inside views for the former employee indicator and overall rating using year-by-year regressions. Everything else is similar to the previous table. Note that baseline measures and residualized measures are highly correlated (above 0.96 correlation), leading to potential multicollinearity.

Panel A: Estimated emissions from satellite imagery (E)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Baseline E	-28.63 (22.26)	-22.36 (23.65)	-53.32** (24.29)	-15.47 (15.74)	-15.69 (17.11)	-44.86* (26.75)	-31.74* (18.59)	-30.71* (16.92)	-31.69 (33.15)
Residualized E	28.38 (22.25)	22.12 (23.65)	52.96** (24.19)	15.18 (15.69)	15.44 (17.05)	44.49* (26.70)	31.58* (18.63)	30.56* (16.93)	31.54 (33.11)
MSCI E		-0.19 (0.16)	-0.19 (0.15)		-0.17 (0.15)	-0.17 (0.15)		-0.11 (0.17)	-0.11 (0.16)
Overall rating			-0.48 (0.54)			-0.57 (0.47)			-0.03 (0.67)
Observations	1542	1273	1273	1583	1281	1281	1584	1263	1263
Pseudo R ²	0.74	0.75	0.76	0.74	0.75	0.76	0.72	0.74	0.74
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Indicator for Best Companies for Diversity (S)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Baseline S	8.52*** (1.12)	8.43*** (1.24)	3.92 (4.26)	8.58*** (1.06)	8.60*** (1.24)	4.11 (3.70)	7.36*** (1.00)	7.02*** (1.09)	2.46 (3.26)
Residualized S	-7.70*** (1.10)	-7.63*** (1.22)	-3.23 (4.20)	-7.76*** (1.03)	-7.88*** (1.21)	-3.49 (3.65)	-6.75*** (0.98)	-6.43*** (1.07)	-1.98 (3.17)
MSCI S		0.41** (0.19)	0.40** (0.19)		0.40* (0.21)	0.39* (0.21)		0.34 (0.22)	0.34 (0.22)
Overall rating			0.84 (0.77)			0.81 (0.65)			0.78 (0.53)
Observations	4843	4017	4017	4820	3899	3899	4722	3780	3780
Pseudo R ²	0.26	0.26	0.26	0.26	0.25	0.25	0.23	0.22	0.22
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel C: Number of internal control weaknesses (G)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Baseline G	-1.24*** (0.30)	-1.07*** (0.32)	-0.79 (0.86)	-1.39*** (0.34)	-1.23*** (0.41)	-0.05 (1.12)	-1.24*** (0.39)	-1.14** (0.45)	-1.96 (1.24)
Residualized G	0.90*** (0.30)	0.74** (0.31)	0.47 (0.82)	1.14*** (0.34)	0.96** (0.42)	-0.16 (1.06)	0.98*** (0.38)	0.81* (0.44)	1.58 (1.17)
MSCI G		-0.09 (0.12)	-0.09 (0.12)		0.04 (0.12)	0.04 (0.12)		-0.02 (0.11)	-0.02 (0.11)
Overall rating			-0.07 (0.18)			-0.26 (0.23)			0.17 (0.23)
Observations	11634	8713	8713	10380	7454	7454	8989	6461	6461
Pseudo R ²	0.16	0.18	0.18	0.16	0.17	0.17	0.15	0.16	0.16
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Table IA29: Robustness to Table 5 on social performance – workforce diversity and pay ratios

This table reports firm-year regressions analogous to Table 5, with separate panels for various robustness checks focusing on social indicators beyond the main indicators in Table 5. Panels A and B focus on workforce pay equality metrics, including female-to-male pay ratio and CEO-to-average-employee pay ratio, respectively. For these, data are drawn from LSEG ESG dataset, which records those ratios as long as they are disclosed by firms. Panels C and D focus on workforce diversity metrics, including female percentage in workforce and nonwhite percentage in workforce, respectively. For these, data are drawn from the sample of government contractors that disclose their workforce EEOC report data during 2016-2020 under a FOIA request, as used in Klein, Shi, and Bratek (2024). All ratios are winsorized at the 1st and 99th percentiles, and standardized to have a zero mean and a unit standard deviation. Some leading zeros are dropped to ensure table fit.

Panel A: S inside view and female-to-male pay ratio

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.19 (0.16)	0.19 (0.15)	0.14 (0.15)	0.30** (0.14)	0.30** (0.14)	0.29* (0.15)	0.24** (0.11)	0.24** (0.11)	0.20 (0.13)
MSCI S		-0.08 (0.13)	-0.08 (0.14)		-0.10 (0.12)	-0.08 (0.12)		-0.13 (0.11)	-0.12 (0.11)
Overall rating			0.21 (0.19)			0.11 (0.16)			0.19 (0.16)
Observations	380	379	353	511	509	477	643	632	596
R-squared	0.32	0.32	0.33	0.34	0.34	0.35	0.33	0.34	0.35
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: S inside view and CEO-to-employee pay ratio

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	-0.02 (0.02)	-0.01 (0.02)	0.00 (0.02)	-0.05*** (0.02)	-0.05*** (0.02)	-0.04** (0.02)	-0.04** (0.02)	-0.03** (0.02)	-0.02 (0.01)
MSCI S		0.01 (0.03)	0.02 (0.03)		-0.00 (0.03)	0.00 (0.03)		0.00 (0.03)	0.01 (0.03)
Overall rating			-0.08 (0.05)			-0.07 (0.06)			-0.08 (0.06)
Observations	2495	2337	2254	2617	2401	2318	2668	2434	2358
R-squared	0.28	0.28	0.28	0.28	0.28	0.28	0.27	0.26	0.26
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Panel C: S inside view and female percentage in workforce

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.03 (0.03)	0.03 (0.03)	0.05** (0.03)	0.06** (0.03)	0.06* (0.03)	0.08*** (0.03)	0.06** (0.03)	0.06** (0.03)	0.08*** (0.03)
MSCI S		0.02 (0.04)	0.03 (0.04)		0.03 (0.04)	0.04 (0.04)		0.02 (0.03)	0.03 (0.03)
Overall rating			-0.09* (0.05)			-0.07* (0.04)			-0.09** (0.04)
Observations	1772	1651	1651	1744	1592	1591	1707	1533	1531
R-squared	0.60	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel D: S inside view and nonwhite percentage in workforce

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)	-0.05 (0.04)	-0.05 (0.04)	-0.05 (0.04)	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)
MSCI S		0.03 (0.06)	0.03 (0.06)		0.03 (0.05)	0.03 (0.05)		0.03 (0.05)	0.03 (0.05)
Overall rating			0.02 (0.07)			0.00 (0.07)			0.01 (0.07)
Observations	1772	1651	1651	1744	1592	1591	1707	1533	1531
R-squared	0.22	0.22	0.22	0.23	0.22	0.22	0.22	0.22	0.22
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA30: Robustness to Table 4 using MSCI and inside view sub-scores on emissions

This table reports firm-year regressions analogous to Table 4, with separate panels for various robustness checks. To keep this table manageable, we focus on our main result about levels of estimated emissions from Climate Trace (the first Panel in Table 4). Panel A replaces the MSCI overall E rating by its emissions subcategory rating (number of strengths on clean energy minus number of weaknesses related to substantial emissions, scaled by the sum of the two). Panel B replaces the MSCI overall E rating by simply the number of weaknesses related to substantial emissions. Panel C replaces the E inside view measure by an inside view measure on emission specifically. All independent variables are standardized to have a zero mean and a unit standard deviation, for easy interpretation.

Panel A: MSCI rating on emissions subcategory

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.18** (0.07)	-0.19** (0.09)	-0.19 (0.12)	-0.27*** (0.09)	-0.24*** (0.08)	-0.26*** (0.07)	-0.11 (0.21)	-0.10 (0.19)	-0.07 (0.16)
MSCI Emissions		-0.11 (0.11)	-0.13 (0.10)		-0.10 (0.13)	-0.09 (0.12)		0.00 (0.11)	0.00 (0.11)
Overall rating			0.15 (0.39)			-0.15 (0.32)			0.54 (0.37)
Observations	1632	1351	1270	1584	1279	1278	1586	1262	1260
Pseudo R ²	0.73	0.74	0.75	0.74	0.75	0.75	0.71	0.73	0.73
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: MSCI indicator for substantial emissions

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.18** (0.07)	-0.16** (0.07)	-0.15 (0.10)	-0.27*** (0.09)	-0.24*** (0.08)	-0.26*** (0.07)	-0.11 (0.21)	-0.11 (0.18)	-0.08 (0.16)
MSCI High Emissions		-0.01 (0.08)	-0.02 (0.08)		0.02 (0.09)	0.01 (0.10)		-0.21** (0.09)	-0.19* (0.10)
Overall rating			0.12 (0.43)			-0.16 (0.36)			0.47 (0.37)
Observations	1632	1351	1270	1584	1279	1278	1586	1262	1260
Pseudo R ²	0.73	0.74	0.75	0.74	0.75	0.75	0.71	0.74	0.74
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel C: Inside view on emissions specifically

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view Emissions	-0.14** (0.07)	-0.15* (0.08)	-0.15 (0.10)	-0.25*** (0.08)	-0.21*** (0.06)	-0.23*** (0.06)	-0.05 (0.17)	-0.06 (0.15)	-0.04 (0.12)
MSCI E		-0.19 (0.16)	-0.20 (0.16)		-0.18 (0.14)	-0.19 (0.14)		-0.12 (0.19)	-0.09 (0.16)
Overall rating			0.16 (0.39)			-0.18 (0.32)			0.55* (0.33)
Observations	1632	1354	1273	1584	1282	1281	1586	1265	1263
Pseudo R ²	0.72	0.74	0.75	0.74	0.75	0.76	0.70	0.72	0.73
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA31: Robustness to Table 5 using MSCI sub-scores on diversity

This table reports firm-year regressions analogous to Table 5 Panel A, but replaces the MSCI overall S rating by its subcategory rating on diversity (number of strengths on diversity minus number of weaknesses related to diversity, scaled by the sum of the two). All independent variables are standardized to have a zero mean and a unit standard deviation, for easy interpretation.

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.96*** (0.12)	0.97*** (0.15)	0.63*** (0.15)	0.91*** (0.12)	0.85*** (0.12)	0.55*** (0.12)	0.69*** (0.11)	0.69*** (0.13)	0.42*** (0.13)
MSCI Diversity score		-0.10 (0.82)	-0.04 (0.98)		-0.00 (0.32)	0.07 (0.33)		0.24 (0.24)	0.26 (0.26)
Overall rating			1.44*** (0.23)			1.43*** (0.22)			1.14*** (0.19)
Observations	4844	4018	4017	4821	3900	3899	4736	3790	3780
Pseudo R ²	0.19	0.19	0.25	0.19	0.18	0.25	0.17	0.17	0.22
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table IA32: Controlling for public ESG sentiments, in sample with low review count

This table presents firm-year level regressions of hard-to-manipulate ESG indicators in years t+1, t+2, or t+3 on the inside view and MSCI rating on the corresponding ESG category at year t, controlling for public sentiments on firms' ESG practices, focusing on the subsample of firms with under yearly sample median for the count of reviews. Dependent variables are satellite-estimated emissions (Panel A), Best Diversity list (Panel B), and internal control weaknesses count (Panel C). Control variables comprise firm size, ROA, and Fama-French 48 industry and year fixed effects, except in Panel B where ROA is excluded due to perfect prediction issues in the logit regression caused by limited sample variation. Variables are standardized except indicators and counts. Regressions use Poisson for counts, Logit for indicator, and OLS otherwise. Standard errors (in parentheses) are clustered by firms. See IA2 for detailed variable descriptions.

Panel A: Estimated emissions from satellite imagery (E)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view E	-0.29** (0.14)	-0.27** (0.13)	-0.34*** (0.13)	-0.31** (0.15)	-0.25 (0.16)	-0.21 (0.20)	-0.15*** (0.06)	-0.23*** (0.07)	-0.25*** (0.08)
Public sent. E	0.25 (0.40)	0.11 (0.37)	0.08 (0.35)	1.13*** (0.38)	0.90** (0.38)	0.84** (0.33)	1.86*** (0.25)	2.07*** (0.26)	2.26*** (0.36)
MSCI E		-0.32* (0.16)	-0.23 (0.15)		-0.27 (0.23)	-0.19 (0.18)		0.28 (0.24)	0.07 (0.25)
Overall rating			-0.72** (0.31)			0.39 (0.55)			-0.55 (0.51)
Observations	327	279	279	314	262	262	317	261	261
Pseudo R ²	0.85	0.88	0.88	0.82	0.84	0.84	0.90	0.93	0.93
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel B: Indicator for Best Companies for Diversity (S)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view S	0.79*** (0.28)	0.88*** (0.33)	0.70* (0.36)	0.77* (0.41)	0.65 (0.72)	0.43 (0.45)	0.78*** (0.20)	0.80*** (0.18)	0.73 (0.44)
Public sent. S	0.79** (0.35)	0.84* (0.47)	0.43 (0.45)	0.47 (0.34)	-0.06 (0.43)	-0.38 (0.30)	0.36 (0.60)	0.10 (0.73)	0.07 (0.89)
MSCI S		1.21 (0.92)	1.21 (0.95)		1.55* (0.81)	1.87** (0.93)		1.10 (0.87)	1.09 (0.89)
Overall rating			1.27* (0.68)			1.28*** (0.34)			0.18 (0.76)
Observations	608	482	482	552	310	310	274	199	199
Pseudo R ²	0.11	0.19	0.25	0.13	0.22	0.30	0.16	0.23	0.23
Ind & year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Panel C: Number of internal control weaknesses (G)

	(1) t+1	(2) t+1	(3) t+1	(4) t+2	(5) t+2	(6) t+2	(7) t+3	(8) t+3	(9) t+3
Inside view G	-0.40*** (0.09)	-0.39*** (0.11)	-0.37*** (0.12)	-0.16* (0.08)	-0.15 (0.10)	-0.11 (0.11)	-0.11 (0.08)	-0.15 (0.09)	-0.14 (0.10)
Public sent. G	-0.28*** (0.09)	-0.26*** (0.09)	-0.25*** (0.10)	-0.10 (0.09)	-0.16* (0.10)	-0.15 (0.10)	-0.07 (0.12)	-0.26* (0.14)	-0.25* (0.14)
MSCI G		-0.03 (0.17)	-0.03 (0.17)		-0.03 (0.13)	-0.02 (0.13)		0.03 (0.15)	0.03 (0.16)
Overall rating			-0.07 (0.11)			-0.14 (0.13)			-0.07 (0.13)
Observations	2436	1802	1802	2117	1489	1489	1699	1142	1142
Pseudo R ²	0.17	0.16	0.16	0.15	0.15	0.15	0.14	0.16	0.16
Ind*year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

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