ESG Ratings and Financial Reporting Quality:
Why Social Performance Matters

Rimona Palas,[a] Dalit Gafni,[b] Dov Solomon,[c] Ido Baum[d]

Abstract

This study explores the relationship between environmental, social, and governance (ESG) ratings and financial reporting quality (FRQ). Using a sample of U.S.-listed firms from 2012 to 2022 and MSCI ESG ratings, we analyze the individual and distinct effects of the ESG components on FRQ, measured by earnings persistence and the ability of earnings to predict future cash flows. We find a strong association between the social pillar and FRQ. This relationship further strengthened following the 2019 Business Roundtable Statement on corporate purpose. Our results support a more disaggregated, pillar-specific approach to ESG.

[a] Accounting Department, Business School, College of Law and Business, Ramat Gan, Israel, rimona@clb.ac.il (Corresponding author)

[b] School of Economics, College of Management Academic Studies (Colman), Rishon LeZion, Israel, dalit@gafni.co.il

[c] Law School, College of Law and Business, Ramat Gan, Israel, solomon@clb.ac.il

[d] Haim Striks Faculty of Law, College of Management Academic Studies (Colman), Rishon LeZion, Israel, baumi@colman.ac.il

1. Introduction

The environmental, social, and governance (ESG) concept reflects a company's responsibility for the effects of its operations on the environment, society, and its stakeholders. ESG performance represents the integration of environmental, social, and corporate governance considerations into organizational business practices. Recently, global interest in ESG performance has markedly increased, prompting investors and corporations to place significant emphasis on ESG metrics. These metrics, typically issued by international rating agencies, serve as critical measures of a company's adherence to ESG principles (Alles et al., 2022; Berg et al., 2023).

Current research on ESG focuses mainly on the relationship between ESG ratings and firm performance (Brogi & Lagasio, 2019; Cek & Eyupoglu, 2020; Cornell & Damodaran, 2020; Ellili, 2022; Pulino et al., 2022; Tsang et al., 2021). We identify two significant gaps in the research. First, analysis of how ESG ratings interact with financial reporting quality (FRQ) is limited. Second, ESG ratings are treated as a monolithic parameter (Chih et al., 2008; Gafni et al., 2024; Jia & Li, 2022; Prior et al., 2008).

Our paper addresses these gaps by analyzing data from the most widely used commercial ESG rating agency, MSCI (Berg et al., 2022; Berglund et al., 2018; Christensen et al., 2022; Gafni et al., 2024; Yang, 2020b; Zumente & Lāce, 2021) for U.S.-listed companies between 2012 and 2022, disaggregating ESG ratings into their three pillars and examining their relationship with FRQ. Furthermore, we explore the

temporal dimension of these relationships around the pivotal 2019 Business Roundtable Statement on corporate purpose (BRT).[1]

To our knowledge, this is the first study to comprehensively examine the relationship between individual ESG pillars and FRQ. By disaggregating the ESG rating into its environmental, social, and governance components, the study contributes to a more nuanced, pillar-specific understanding of ESG's impact on financial reporting.

2. Literature Review

The relationship between ESG performance and financial outcomes has been examined in the literature using various theoretical frameworks, with mixed results (Cornell & Damodaran, 2020). While some theories suggest a positive correlation between ESG investments and financial performance (Arian et al., 2023; El Khoury et al., 2023), others highlight the trade-offs and potential financial burdens associated with ESG-related expenditures (Galant & Cadez, 2017). Empirical literature also shows varied findings (Cornell & Damodaran, 2020). These discrepancies may stem from the fact that much of the literature aggregates ESG scores without parsing out the effects of the individual pillars, although each may influence firm performance differently (Pulino et al., 2022; Tsang et al., 2021).

Compared to firm performance, the connection between ESG and FRQ remains relatively underexplored. Two contrasting perspectives emerge regarding this

---

[1] This statement, endorsed by CEOs of nearly 200 major U.S. corporations, advocates for a shift away from shareholder primacy toward a broader stakeholder-oriented approach, thereby elevating the importance of ESG considerations in investment decisions. Business Roundtable Redefines the Purpose of a Corporation to Promote 'An Economy That Serves All Americans,' https://www.businessroundtable.org/business-roundtable-redefines-the-purpose-of-a-corporation-to-promote-an-economy-that-serves-all-americans.

relationship. Some research suggests a positive link between a company's commitment to ESG initiatives and the quality of its financial reporting. According to this view, firms that perform better in ESG practices are more likely to achieve stronger financial performance, which subsequently facilitates higher-quality financial reporting(Appelbaum et al., 2023; Tsang et al., 2023). Moreover, socially responsible firms cultivate a culture of accountability and transparency, thereby improving the informativeness and reliability of their financial disclosures (Atkins, 2006; Jacoby et al., 2018).

An opposing perspective highlights concerns about potential manipulation, stemming primarily from the lack of harmonized disclosure standards and uniform assessment criteria for ESG performance(Christensen et al., 2022; The Alliance for Corporate Transparency, 2019). Scholars have suggested that companies may use nonfinancial ESG data to redirect focus from weak financial performance, perhaps aiming to bolster their ESG scores as a means of offsetting subpar financial results (Edmans, 2023). Specifically, firms with poor financial performance may engage more visibly in ESG initiatives while issuing less-informative financial reports, diverting attention from core performance(Busco et al., 2019).

The relationship between ESG disclosures and FRQ has been the focus of most research, and many studies have found a positive correlation(Al-Shaer, 2020; Alodat et al., 2024; Dal Maso et al., 2020; Fuhrmann et al., 2017). However, fewer studies have explicitly examined ESG ratings and their direct influence on FRQ, leading to inconsistent empirical findings.

Studies using earnings management as a measure of FRQ have shown mixed results. Kim et al. (2012) found that firms with high ESG ratings deliver more

transparent and reliable financial information to their investors, particularly those with high ratings in community and employee relations (associated with the S score). Chih et al. (2008) found that firms with greater commitment to ESG show reduced earnings smoothing and loss avoidance, but earnings aggressiveness is increased. On the other hand, Prior et al. (2008) found a positive relationship between ESG ratings and earnings management.

Recent research uses alternative FRQ measures. Lin et al. (2020) use earnings restatements and find a negative relationship with ESG ratings, suggesting a higher FRQ. This relationship is stronger when only the governance measure is used. However, in a later period, this relationship weakens as ESG scores become significantly higher.

Ferdous et al. (2025) assess financial statement disaggregation as an FRQ indicator. Their study defines disaggregation as the level of financial statement detail, indicating how effectively firms break down financial information into specific, decision-useful line items. Their findings suggest that higher ESG ratings are positively associated with enhanced disclosure quality.

Jia & Li (2022) reveal that sustainability performance is positively correlated with earnings persistence and with the association between earnings and future cash flows in listed Australian firms.

More recently, Gafni et al. (2024) find a significant positive relationship between higher ESG scores, earnings persistence, and earnings predictability, as well as a negative association with financial restatements. The results further suggest that increased investor attention to ESG, spurred by BRT, positively influenced this relationship.

Although studies suggest a positive association between ESG and FRQ, empirical findings remain inconsistent, primarily due to variability in FRQ measurement methodologies and the distinct influence of individual ESG pillars. These discrepancies underscore the need for further research to clarify the causal mechanisms governing the ESG–FRQ relationship.

3. Data and Basic Characteristics

We obtained ESG ratings from Morgan Stanley Capital International (MSCI), the most-used commercial ESG rating agency (Berg et al., 2022; Berglund et al., 2018; Christensen et al., 2022; Yang, 2020; Zumente & Lāce, 2021), the only major rating agency that can explain investment decisions by institutional investors (Berg et al., 2023). Our study uses the MSCI ESG complete score, with its three pillars—environmental, social, and governance—to assess whether those pillars have different influences on FRQ. The environmental pillar is based on issues such as climate change, natural capital, and pollution and waste; the social pillar encompasses issues such as human capital, product liability, stakeholder opposition, and social opportunities; and the governance pillar is constructed on corporate governance measures and corporate behavior. The score is applied on a 0–10 scale, with a higher score reflecting stronger ESG practices. It is calculated by normalizing the weighted average key issue score relative to the ESG rating industry peer group, based on score ranges set by the benchmark values in the peer set.

We used financial data from XBRL financial filings that we obtained from the Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system. The final sample comprises 2,807 firms over the years 2012 to 2022, resulting in 16,191 firm-year observations.

We examine five widely used firm characteristics—size, profitability, leverage, growth, and valuation—to perform our assessment of the companies (Gafni et al., 2024; Palas et al., 2023; Palas & Solomon, 2022).

We find (Table 1) that the mean and median G scores are the largest, followed by the E score, and the total ESG score and the S score are the lowest. Most companies are profitable and exhibit positive growth.

4. Quality of Reporting

While there is no agreement in the literature regarding the measurement of FRQ, we use two recognized measures, persistence and predictability (Dechow et al., 2010; Palas & Solomon, 2022; Solomon et al., 2020). The focus of our measures is to provide information to investors for the purpose of investment decision-making.

Expected cash flows are a fundamental part of equity valuation but obviously cannot be directly measured, so current earnings are used as an indicator of them. The extent to which they are a reliable proxy is captured by earnings persistence. Higher earnings persistence suggests that a firm's earnings streams are more stable and sustainable and therefore more reliable inputs for discounted cash flow–based valuation models (Dechow et al., 2010; Solomon et al., 2020). Following the approach established by Dechow & Dichev (2002), we quantify earnings persistence by regressing future earnings on current earnings, a method widely employed in previous research to assess the stability and informativeness of reported earnings.

Earnings persistence is susceptible to short-term earnings manipulation because it relies on the accounting measurement system (Dechow et al., 2010). Given the potential distortions introduced by accrual-based accounting, earnings persistence alone may not fully capture FRQ. To mitigate this limitation, we incorporate earnings predictability

as an additional FRQ measure. The ability of earnings to predict future cash flows is recognized as a proxy for earnings quality (Nam et al., 2012)because cash flows are often a more direct determinant of firm valuation(Foerster et al., 2017). By assessing the extent to which earnings forecast future cash flows, we provide a complementary perspective on FRQ, reducing the potential biases associated with reliance on accounting-based metrics alone.

We estimate the first regression model, representing persistence, where the dependent variable is EPS:

$$EPS_{j,t} = \alpha_0 + \alpha_1\ EPS_{j,t-1} + \alpha_2\ ESG_{SCORE\,j,t} + \alpha_3\ EPS_{j,t-1}\,{}^*ESG_{SCORE\,j,t} + \alpha_4\ CONTROLS_{j,t} + e_{j.t}\ (1)$$

The independent variable $EPS_{j,t-1}$ is firm j's EPS for year t-1. The $ESG_{SCORE\,j,t}$ is measured as the ESG score for firm j in year t. It is then separated into the different pillars: environmental scores $(E_{SCORE\,j,t})$, social scores $(S_{SCORE\,j,t})$, and governance scores $(G_{SCORE\,j,t})$. We include all ten characteristics representing size, profitability, leverage, growth, and valuation (Table 1) as control variables. The interaction between ESG scores and *EPS* for year *t*-1, which addresses the question of *whether earnings are more persistent for firms with a higher ESG score*, is the most important explanatory variable. A positive α_3 suggests that the larger the ESG score, the more persistent the earnings.

We also test whether this relationship has changed following BRT. BRT serves as a natural experiment, helping to address concerns regarding endogeneity and the

influence of unobserved firm-specific factors on FRQ. We include a fixed-firm effect[2] and a fixed-year effect to further mitigate these concerns.

We find (Table 2) that persistence is significantly associated with the total ESG score and all ESG pillars. This relationship is strongest for the S score, both before and after BRT (0.025 and 0.049, respectively). Following BRT, the relationship strengthens for the total ESG score and all ESG pillars. The S pillar shows the largest improvement (an improvement of 0.024). The E and G scores change from a negative value (suggesting that as the ESG score increases, FRQ decreases) to a positive value. We ran a few more robustness tests to strengthen our results (Table 2A). The first test addresses the issue of multicollinearity. The independent variable $EPS_{j,t-1}$ and the interaction with ESG may be strongly correlated, so we removed the independent variable $EPS_{j,t-1}$ and maintained only the interaction variable.[3]

The second issue we address is endogeneity. While we treat the BRT statement as a natural experiment that helps mitigate this concern, we employ additional methods, including the use of a two-stage model with instrumental variables (IV) to confirm our findings' robustness. Endogeneity biases caused by reverse causality and unobserved heterogeneity are mitigated by this technique. We employ two variables found to be associated with ESG performance but not with FRQ. The first is industry sensitivity to socio-environmental impacts. The performance of industries that are sensitive to such impacts can significantly influence environmental and social outcomes (Garcia et al.,

---

[2] We estimated all regressions using both random and fixed-firm effects. The results remained stable under both approaches.

[3] Another approach to mitigating potential multicollinearity resulting from interaction terms is to mean-center the variables. We assess multicollinearity among the mean-centered variables using variance inflation factors (VIFs). In our analysis, all VIF values were below five, suggesting that multicollinearity does not significantly affect the reliability of our coefficient estimates. The results were consistent across specifications.

2017; Zaiane & Ellouze, 2023). The second is company size, measured in terms of total assets.[4] Drempetic et al. (2020) find that firm size influences ESG scores.

The results reinforce our findings. Persistence is significantly associated with the total ESG score and all ESG pillars. This relationship is strongest for the S score, both before and after BRT for most models.

In the second regression model, measuring earnings predictability, we change the dependent variable to $CFS_{j,t}$. Here the interaction variable, $EPS_{j,t-1} * ESG_{SCORE\,j,t}$, answers the question of *whether earnings are better predictors of cash flows for firms with a higher ESG score.*

$$CFS_{j,t} = \propto_0 + \propto_1 EPS_{j,t-1} + \propto_2 ESG_{SCORE\,j,t} + \propto_3 EPS_{j,t-1} * ESG_{SCORE\,j,t} + \propto_4 CONTROLS_{j,t} + e_{j.t} \quad (2)$$

The results in Table 3, testing for predictability, are slightly different from persistence. We find that before BRT, only the total ESG score and the E score are significant, with a negative coefficient for the E score. However, after BRT, all ESG scores are positive and highly significant.

The change after BRT seems to be highest for the G score (an improvement of 0.071), and then the S score (an improvement of 0.058). For the E score, the coefficient changes from a negative to a positive value.

We apply the robustness tests previously used (Table 2A) to the predictability measures with similar results (Table 3A).

---

[4] Total Assets, while used as a control variable in the original model, was found to be insignificant in its relationship with the model and may therefore be used as an IV.

These results suggest that ESG performance, particularly the social dimension, is associated with higher FRQ. This relationship has been favorably affected for all ESG scores by the increased post-BRT attention to firms' ESG performance.

5. Conclusions and Implications

This study provides the first detailed analysis of the relationship between ESG pillars and FRQ. We find notable differences across ESG components. Governance is traditionally viewed as the strongest signal of reporting quality, but our results show the social pillar is equally significant.

While the G pillar relates to formal structures and may reflect board-level decisions, and the E pillar often concerns longer-term strategy and compliance, the S pillar reflects everyday organizational behaviors that directly affect the systems, ethics, and people responsible for preparing and validating financial reports (Neilan et al., 2020). Therefore, its strong association with FRQ is theoretically sound and empirically supported by our study.

These results are particularly relevant given that a recent survey reveals that institutional investors clearly deprioritize the S pillar in their investment decisions (Larcker et al., 2024). The researchers find that among the ESG pillars, the G pillar is ranked by 68% of investors as the highest consideration, and only 2% of investors consider the S pillar most important in their decision-making. At the same time, FRQ is ranked among the top five ESG factors, with 57% of investors explicitly considering

it for investment decisions.[5] Our finding suggests that investors who care about FRQ should not ignore the S pillar and in fact should attach more emphasis to it.

Moreover, analyzing the temporal dimension of the ESG–FRQ relationships, we find that the heightened focus on corporate ESG performance following the BRT has had a positive impact on FRQ for all ESG metrics.

This paper contributes to a deeper understanding of ESG ratings and their effects on FRQ. The findings encourage investors, especially institutional ones, to adopt a more refined approach to integrating ESG considerations into investment decisions. In particular, the S pillar deserves greater weight in investment decisions due to its strong and consistent association with FRQ. Furthermore, our findings support the idea of linking a portion of executive compensation to the firm's social performance. Such an innovative incentive scheme could not only generate positive social impact but also enhance the company's FRQ.

---

[5] It should be noted that Larcker et al. (2024) categorizes the quality of financial reporting as a governance-related issue and thus as a part of the G pillar.

References

Al-Shaer, H. (2020). Sustainability Reporting Quality and Post-Audit Financial Reporting Quality: Empirical Evidence From the UK. *Business Strategy and the Environment*, *29*(6), 2355–2373. https://doi.org/10.1002/bse.2507

Alles, M., Palas, R., Vasarhelyi, M. A., & Xiong, F. (2022). The Case for an App-Based Financial Reporting System. *Journal of Emerging Technologies in Accounting*, *19*(2), 1–21. https://doi.org/10.2308/jeta-10827

Alodat, A. Y., Al Amosh, H., Alorayni, O., & Khatib, S. F. A. (2024). Does Corporate Sustainability Disclosure Mitigate Earnings Management: Empirical Evidence From Jordan. *International Journal of Disclosure and Governance*, *21*(1), 165–174. https://doi.org/10.1057/s41310-023-00213-4

Appelbaum, D., Duan, H. K., Hu, H., & Sun, T. (sophia). (2023). The Double Materiality Audit: Assurance of ESG Disclosure. *SSRN Electronic Journal*, *4367032*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4367032

Arian, A., Sands, J., & Tooley, S. (2023). Industry and Stakeholder Impacts on Corporate Social Responsibility (CSR) and Financial Performance: Consumer vs. Industrial Sectors. *Sustainability (Switzerland)*, *15*(16), 12254. https://doi.org/10.3390/su151612254

Atkins, B. (2006). Is Corporate Social Responsibility Responsible? *Forbes.Com*, November 28.

Berg, F., Heeb, F., & Kölbel; Julian F. (2023). The Economic Impact of ESG Ratings. *SSRN Electronic Journal*, *4088545*. https://doi.org/10.2139/ssrn.4088545

Berg, F., Kölbel, J. F., & Rigobon, R. (2022). Aggregate Confusion: The Divergence of ESG Ratings. *Review of Finance*, *26*(6), 1315–1344. https://doi.org/10.2139/ssrn.3438533

Berglund, N. R., Eshleman, J. D., & Guo, P. (2018). Auditor Size and Going Concern Reporting. *Auditing*, *37*(2), 1–25. https://doi.org/10.2308/ajpt-51786

Brogi, M., & Lagasio, V. (2019). Environmental, Social, and Governance and Company Profitability: Are Financial Intermediaries Different? *Corporate Social Responsibility and Environmental Management*, *26*(3), 576–587. https://doi.org/10.1002/csr.1704

Busco, C., Malafronte, I., Pereira, J., & Starita, M. G. (2019). The Determinants of Companies' Levels of Integration: Does One Size Fit All? *British Accounting Review*, *51*(3), 277–298. https://doi.org/10.1016/j.bar.2019.01.002

Cek, K., & Eyupoglu, S. (2020). Does Environmental, Social and Governance Performance Influence Economic Performance? *Journal of Business Economics and Management*, *21*(4), 1165–1184. https://doi.org/10.3846/jbem.2020.12725

Chih, H. L., Shen, C. H., & Kang, F. C. (2008). Corporate Social Responsibility, Investor Protection, and Earnings Management: Some International Evidence. *Journal of Business Ethics*, *79*(1–2), 179–198. https://doi.org/10.1007/s10551-007-9383-7

Christensen, D. M., Serafeim, G., & Sikochi, A. (2022). Why is Corporate Virtue in the Eye of The Beholder? The Case of ESG Ratings. *The Accounting Review*, *97*(1),

147–175. https://doi.org/10.2308/tar-2019-0506

Cornell, B., & Damodaran, A. (2020). Valuing ESG: Doing Good or Sounding Good? *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3557432

Dal Maso, L., Lobo, G. J., Mazzi, F., & Paugam, L. (2020). Implications of the Joint Provision of CSR Assurance and Financial Audit for Auditors' Assessment of Going-Concern Risk. *Contemporary Accounting Research*, *37*(2), 1248–1289. https://doi.org/10.1111/1911-3846.12560

Dechow, P., Ge, W., & Schrand, C. (2010). Understanding Earnings Quality: A Review of the Proxies, their Determinants and their Consequences. *Journal of Accounting and Economics*, *50*(2–3), 344–401. https://doi.org/10.1016/j.jacceco.2010.09.001

Dechow, P. M., & Dichev, I. D. (2002). The Quality of Accruals and Earnings: The Role of Accrual Estimation Errors. *Accounting Review*, *77*(SUPPL.), 35–59. https://doi.org/10.2308/accr.2002.77.s-1.61

Drempetic, S., Klein, C., & Zwergel, B. (2020). The Influence of Firm Size on the ESG Score: Corporate Sustainability Ratings Under Review. *Journal of Business Ethics*, *167*(2), 333–360. https://doi.org/10.1007/s10551-019-04164-1

Edmans, A. (2023). Applying Economics – Not Gut Feel – To ESG. *Financial Analysts Journal*, *79*(4), 16–29. https://doi.org/10.2139/ssrn.4346646

El Khoury, R., Nasrallah, N., & Alareeni, B. (2023). ESG and Financial Performance of Banks in the MENAT Region: Concavity–Convexity Patterns. *Journal of Sustainable Finance and Investment*, *13*(1), 406–430. https://doi.org/10.1080/20430795.2021.1929807

Ellili, N. O. D. (2022). Impact of ESG Disclosure and Financial Reporting Quality on

Investment Efficiency. *Corporate Governance (Bingley)*, *22*(5), 1094–1111. https://doi.org/10.1108/CG-06-2021-0209

Ferdous, L. T., Rana, T., & Yeboah, R. (2025). Decoding the Impact of Firm-Level ESG Performance on Financial Disclosure Quality. *Business Strategy and the Environment*, *34*, 162–186. https://doi.org/10.1002/bse.3982

Foerster, S., Tsagarelis, J., & Wang, G. (2017). Are Cash Flows Better Stock Return Predictors than Profits? *Financial Analysts Journal*, *73*(1), 73–99. https://doi.org/10.2469/faj.v73.n1.2

Fuhrmann, S., Ott, C., Looks, E., & Guenther, T. W. (2017). The Contents of Assurance Statements for Sustainability Reports and Information Asymmetry. *Accounting and Business Research*, *47*(4), 369–400. https://doi.org/10.1080/00014788.2016.1263550

Gafni, D., Palas, R., Baum, I., & Solomon, D. (2024). ESG regulation and financial reporting quality: Friends or foes? *Finance Research Letters*, *61*, 105017. https://doi.org/10.1016/j.frl.2024.105017

Galant, A., & Cadez, S. (2017). Corporate social Responsibility and Financial Performance Relationship: A Review of Measurement Approaches. *Economic Research-Ekonomska Istrazivanja*, *30*(1), 676–693. https://doi.org/10.1080/1331677X.2017.1313122

Garcia, A. S., Mendes-Da-Silva, W., & Orsato, R. (2017). Sensitive Industries Produce Better ESG Performance: Evidence from Emerging Markets. *Journal of Cleaner Production*, *150*, 135–147. https://doi.org/10.1016/j.jclepro.2017.02.180

Jacoby, G., Liu, M., Wang, Y., Wu, Z., & Zhang, Y. (2018). Corporate Governance,

External Control, and Environmental Information Transparency: Evidence From Emerging Markets. *Journal of International Financial Markets, Institutions and Money*, *58*, 269–283. https://doi.org/10.1016/j.intfin.2018.11.015

Jia, J., & Li, Z. (2022). Corporate Sustainability, Earnings Persistence and the Association Between Earnings and Future Cash Flows. *Accounting and Finance*, *62*(1), 299–336. https://doi.org/10.1111/acfi.12791

Kim, Y., Park, M. S., & Wier, B. (2012). Is Earnings Quality Associated with Corporate Social Responsibility? *Accounting Review*, *87*(3), 761–796. https://doi.org/10.2308/accr-10209

Larcker, D. F., Seru, A., Tayan, B., & Lee, L. (2024). *2024 Institutional Investor Survey on Sustainability*. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.gsb.stanford.edu/sites/default/files/publication/pdfs/cgri-survey-2024-institutional-investor-survey-sustainability_0.pdf

Lin, Y. H., Huang, H. W., Riley, M. E., & Lee, C. C. (2020). Corporate Social Responsibility and Financial Reporting Quality: Evidence from Restatements. *Accounting and the Public Interest*, *20*(1), 61–75. https://doi.org/10.2308/API-19-010

Nam, S., Brochet, F., & Ronen, J. (2012). The Predictive Value of Accruals and Consequences for Market Anomalies. *Journal of Accounting, Auditing & Finance*, *27*(2), 151–176. https://doi.org/0. 1 177/0148558XI 1409149

Neilan, J., Reilly, P., & Fitzpatrick, G. (2020). *Time to Rethink the S in ESG*. Harvard Law School Forum on Corporate Governance. https://corpgov.law.harvard.edu/2022/06/17/esg-global-study-2022/

Palas, R., & Solomon, D. (2022). The Quality of Earnings Information in Dual-Class Firms: Persistence and Predictability. *Journal of Law, Finance, and Accounting*, *7*, 127–164. https://doi.org/10.1561/108.00000059

Palas, R., Solomon, D., Gafni, D., & Baum, I. (2023). Does Wedge Size Matter? Financial Reporting Quality and Effective Regulation of Dual-Class Firms. *Finance Research Letters*, *54*, 103774. https://doi.org/10.1016/j.frl.2023.103774

Prior, D., Surroca, J., & Tribó, J. A. (2008). Are Socially Responsible Managers Really Ethical? Exploring the Relationship Between Earnings Management and Corporate Social Responsibility. *Corporate Governance: An International Review*, *16*(3), 160–177. https://doi.org/10.1111/j.1467-8683.2008.00678.x

Pulino, S. C., Ciaburri, M., Magnanelli, B. S., & Nasta, L. (2022). Does ESG Disclosure Influence Firm Performance? *Sustainability (Switzerland)*, *14*(13), 1–19. https://doi.org/10.3390/su14137595

Solomon, D., Palas, R., & Baranes, A. (2020). The Quality of Information Provided by Dual-Class Firms. *American Business Law Journal*, *57*(3), 443–486. https://doi.org/10.1111/ablj.12167

The Alliance for Corporate Transparency. (2019). *2019 Research Report*. https://www.sustentia.com/wp-content/uploads/2020/07/2019-Research-Report-Alliance-for-Corporate-Transparency_compressed.pdf

Tsang, A., Frost, T., & Cao, H. (2023). Environmental, Social, and Governance (ESG) disclosure: A literature review. *British Accounting Review*, *55*(1), 101149. https://doi.org/10.1016/j.bar.2022.101149

Tsang, A., Hu, W., & Li, X. (Fiona). (2021). CSR and Firm Value: A Comparative

Study of CSR Performance Measures. *China Accounting and Finance Review*, *23*(1), 1–33. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3709340

Yang, R. (2020a). Credit Ratings in the Age of Environmental, Social, and Governance (ESG). *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3595376

Yang, R. (2020b). What Do We Learn From Ratings About Corporate Social Responsibility (CSR)? *Columbia Business School Research Paper No. 18-37*, 78. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3165783

Zaiane, S., & Ellouze, D. (2023). Corporate Social Responsibility and Firm Financial Performance: the Moderating Effects of Size and Industry Sensitivity. *Journal of Management and Governance*, *27*, 1147–1187. https://doi.org/10.1007/s10997-022-09636-7

Zumente, I., & Lāce, N. (2021). ESG Rating—Necessity for the Investor or the Company? *Sustainability (Switzerland)*, *13*(16). https://doi.org/10.3390/su13168940

Table 1. Descriptive statistics

Category	Variable	N	Mean	Median	Min	Max	Std. dev.
Dependent variable	EPS	16,191	1.91	1.54	−10.85	21.58	3.96
	CFS	16,079	5.91	3.11	−8.40	164.79	16.87
ESG score		16,191	4.27	4.10	0.00	10.00	1.94
E score		16,189	4.59	4.51	0.00	10.00	2.19
S score		16,190	4.26	4.21	0.00	10.00	1.58
G score		16,184	5.52	5.40	0.00	10.00	2.03
Size[a]	Sales revenue	16,191	6,709.34	1,604.57	0.36	101,093.00	15,670.24
	Market value	16,191	12,691.54	2,827.94	78.49	193,000.00	30,075.20
	Total assets	16,191	15,303.48	3,312.96	87.83	264,829.00	38,723.60
Profitability	Profit margin[b]	16,191	−0.17	0.06	−26.37	1.00	2.05
	ROA[c]	16,191	0.02	0.03	−0.79	0.29	0.13
Leverage	Debt %[d]	16,191	0.27	0.24	0	0.99	0.21
Growth	Δ revenue[e]	16,191	0.13	0.06	−0.77	3.94	0.49
	R & D exp.[f]	16,191	112.01	0	0	2,771.00	403.50
Valuation	P/E[g]	16,191	16.80	17.28	−326.89	380.13	68.44
	P/B[h]	16,191	5.51	2.39	0.20	88.17	11.61

[a] Measured in millions of dollars.
[b] Net income in year t as a percentage of sales revenues in year t.
[c] Net income in year t as a percentage of total assets in year t.
[d] Total debt in year t as a percentage of total assets in year t.
[e] Sales revenues in year t minus sales revenues in year $t − 1$ divided by sales revenues in year $t − 1$.
[f] R&D expenses in year t as a percentage of sales revenues in year t.
[g] Market value in year t divided by net income in year t.
[h] Market value in year t divided by total assets in year t.

Table 2. Tests of persistence

Variable	ESG score	E score	S score	G score
$EPS_{j,t-1}$[a]	0.101***	0.171***	0.003	0.173***
	(0.019)	(0.015)	(0.018)	(0.018)
$EPS_{j,t-1}*ESG\_SCORE_{j,t}$[b,c]	0.015***	-0.014***	0.025***	-0.013***
	(0.004)	(0.003)	(0.004)	(0.003)
$EPS_{j,t-1}*ESG\_SCORE_{j,t}*DUMMY2020$[d]	0.016***	0.021***	0.024***	0.021***
	(0.002)	(0.002)	(0.002)	(0.002)
Control variables[e]	+	+	+	+
Fixed-year effect	+	+	+	+
Fixed-company effect	+	+	+	+
R^2	0.66	0.77	0.77	0.77
# of observations	16,198	16,189	16,190	16,184

***significant at 1%; **significant at 5%; *significant at 10%

The numbers in parentheses are the estimates' standard errors.

[a] Firm j earnings per share for year t-1.

[b] Firm j ESG score for year t.

[c] The interaction between the two independent variables.

[d] DUMMY2020 – dummy variable for year 2020–2022.

[e] 10 variables representing company size, profitability, leverage, growth, valuation, and industry.

Size is represented by three variables: $REV_{j,t}$ is the total revenues of firm j at year t, $MCAP_{j,t}$ is the market value of firm j at year t, and $AST_{j,t}$ is the total assets of firm j at year t. Profitability is represented by two variables: $PRM_{j,t}$ is the profit margin (net income divided by revenues) of firm j at year t, and $ROA_{j,t}$ is the return on assets (net income divided by total assets) of company j at year t. Leverage is denoted by $DAS_{j,t}$, measured total debt as a percentage of total assets of firm j at year t. Growth includes two variables: Change in Revenues, measured as Sales Revenues in year t minus Sales Revenues in year t-1 divided by Sales Revenues in year t-1, and R&D expense, measured as R&D Expense in year t as a percentage of Sales Revenues in year t ($CRV_{j,t}$ and $R\&D_{j,t}$, respectively). Valuation also includes two variables for firm j at time t: Price to Earnings ratio ($P/E_{j,t}$) and Price to Book Value ratio ($P/B_{j,t}$).

Table 2A. Robustness tests of persistence

Models	Variable	ESG score	E score	S score	G score
Removal of independent variable $EPS_{j,t-1}$[a]	$EPS_{j,t-1}*ESG\_SCORE_{j,t}$[b,c]	0.034*** (0.002)	0.015*** (0.001)	0.026*** (0.001)	0.014*** (0.001)
	$EPS_{j,t-1}*ESG\_SCORE_{j,t}*DUMMY2020$[d]	0.015*** (0.002)	0.019*** (0.001)	0.024*** (0.002)	0.023*** (0.001)
Use of two IV: industry sensitivity and Total Assets	$EPS_{j,t-1}*ESG\_SCORE_{j,t}$	0.216*** (0.013)	0.082*** (0.009)	0.489*** (0.031)	0.184*** (0.019)
	$EPS_{j,t-1}*ESG\_SCORE_{j,t}*DUMMY2020$[d]	0.0006** (0.002)	0.009*** (0.002)	0.014*** (0.003)	0.036*** (0.002)
Removal of independent variable $EPS_{j,t-1}$ and use of two IV: industry sensitivity and Total Assets	$EPS_{j,t-1}*ESG\_SCORE_{j,t}$[b,c]	0.031*** (0.002)	0.038*** (0.002)	0.028*** (0.002)	0.019*** (0.001)
	$EPS_{j,t-1}*ESG\_SCORE_{j,t}*DUMMY2020$[d]	0.022*** (0.002)	0.013*** (0.002)	0.027*** (0.002)	0.025*** (0.002)

***significant at 1%; **significant at 5%; *significant at 10%

The numbers in parentheses are the estimates' standard errors.

[a] Firm j earnings per share for year $t-1$.

[b] Firm j ESG score for year t.

[c] The interaction between the two independent variables.

[d] DUMMY2020 – dummy variable for year 2020–2022.

Table 3. Tests of predictability

Variable	ESG score	E score	S score	G score
$EPS_{j,t-1}$ [a]	0.039 (0.093)	0.332*** (0.089)	0.098 (0.111)	0.207** (0.109)
$EPS_{j,t-1}*ESG\_SCORE_{j,t}$ [b,c]	0.036* (0.021)	-0.038** (0.018)	0.008 (0.025)	-0.024 (0.019)
$EPS_{j,t-1}*ESG\_SCORE_{j,t}*DUMMY2020$ [d]	0.039*** (0.01)	0.042*** (0.011)	0.058*** (0.013)	0.071*** (0.011)
Control variables [e]	+	+	+	+
Fixed-year effect	+	+	+	+
Fixed-company effect	+	+	+	+
R^2	0.55	0.55	0.55	0.55
# of observations	16,085	16,077	16,078	16,072

***significant at 1%; **significant at 5%; *significant at 10%

The numbers in parentheses are the estimates' standard errors.

[a] Firm j earnings per share for year t-1.

[b] Firm j ESG score for year t.

[c] The interaction between the two independent variables.

[d] DUMMY2020 – dummy variable for year 2020–2022.

[e] 10 variables representing company size, profitability, leverage, growth, valuation, and industry.

Size is represented by three variables: $REV_{j,t}$ is the total revenues of firm j at year t, $MCAP_{j,t}$ is the market value of firm j at year t, and $AST_{j,t}$ is the total assets of firm j at year t. Profitability is represented by two variables: $PRM_{j,t}$ is the profit margin (net income divided by revenues) of firm j at year t, and $ROA_{j,t}$ is the return on assets (net income divided by total assets) of company j at year t. Leverage is denoted by $DAS_{j,t}$, measured total debt as a percentage of total assets of firm j at year t. Growth includes two variables: Change in Revenues, measured as Sales Revenues in year t minus Sales Revenues in year t-1 divided by Sales Revenues in year t-1, and R&D expense, measured as R&D Expense in year t as a percentage of Sales Revenues in year t ($CRV_{j,t}$ and $R\&D_{j,t}$, respectively). Valuation also includes two variables for firm j at time t: Price to Earnings ratio ($P/E_{j,t}$) and Price to Book Value ratio ($P/B_{j,t}$).

Table 3A. Robustness tests of predictability

Models	Variable	ESG score	E score	S score	G score
Removal of independent variable $EPS_{j,t-1}$ [a]	$EPS_{j,t-1}*ESG\_SCORE_{j,t}$ [b,c]	0.044*** (0.011)	0.019* (0.001)	0.029** (0.011)	0.009 (0.009)
	$EPS_{j,t-1}*ESG\_SCORE_{j,t}*DUMMY2020$ [d]	0.038*** (0.012)	0.039*** (0.011)	0.057*** (0.014)	0.073*** (0.011)
Use of two IV: industry sensitivity and Total Assets	$EPS_{j,t-1}*ESG\_SCORE_{j,t}$ [b,c]	0.283*** (0.013)	0.099** (0.048)	0.145 (0.075)	0.039 (0.11)
	$EPS_{j,t-1}*ESG\_SCORE_{j,t}*DUMMY2020$ [d]	0.047*** (0.015)	0.055*** (0.013)	0.075*** (0.015)	0.073*** (0.014)
Removal of independent variable $EPS_{j,t-1}$ and use of two IV: industry sensitivity and Total Assets	$EPS_{j,t-1}*ESG\_SCORE_{j,t}$ [b,c]	0.031** (0.012)	0.030*** (0.011)	0.024** (0.012)	0.017* (0.009)
	$EPS_{j,t-1}*ESG\_SCORE_{j,t}*DUMMY2020$ [d]	0.068 (0.014)	0.060 (0.012)	0.079 (0.014)	0.072 (0.012)

***significant at 1%; **significant at 5%; *significant at 10%

The numbers in parentheses are the estimates' standard errors.

[a] Firm j earnings per share for year $t-1$.

[b] Firm j ESG score for year t.

[c] The interaction between the two independent variables.

[d] DUMMY2020 – dummy variable for year 2020–2022.