Mandatory Disclosure and ESG Profiles: Evidence from the Smaller Reporting Company Rule*

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Abstract

I examine the impact of reduced mandatory disclosure on ESG profiles. Using the SEC's 2018 rule reform for smaller reporting companies, I find that treated firms reduced their ESG disclosure quality and score when their disclosure obligations decreased, particularly in environmental and governance dimensions. This negative effect is intensified for financially constrained firms but is mitigated for firms with strong ESG commitments, such as gender-diverse boards, ESG-linked executive compensation, ESG-focused investors, and strong governance. However, I find no significant changes in real ESG activities among firms that disclose this information, such as emissions and donations. These results indicate that information availability is a fundamental driver of ESG scores and suggest that firms adjusting their ESG profiles are not prioritizing ESG, providing insights into how firms may react to the SEC's upcoming 2022 ESG disclosure obligations.

Keywords: Mandatory disclosure, Environmental, Social and Governance (ESG), Corporate Social Responsibility (CSR), Smaller Reporting Company (SRC)

JEL classification: K20, M14, M40

1. Introduction

The U.S. Securities and Exchange Commission (hereafter, SEC) has pursued a twofold, seemingly contradictory objective in financial reporting: enhancing mandatory disclosure and transparency standards, especially in recent times with a focus on ESG reporting, while simultaneously simplifying mandatory disclosure for small businesses. In particular, with the growing investor interest in corporate social responsibility, the SEC has strengthened the ESG disclosure framework since the 2010s, emphasizing transparency and rigorous monitoring. As part of this initiative, the SEC launched an enforcement task force on climate and ESG issues in March 2021, followed by the proposal of mandatory climate disclosure rules for all public companies on March 21, 2022. Meanwhile, to alleviate disclosure burdens and attract investment in small firms, the SEC utilizes size-based disclosure exemptions for smaller reporting companies (hereafter, SRC). SRCs can reduce specific disclosures in their SEC filings, which, as elaborated later, directly or indirectly pertain to ESG components. The SEC's two policy goals, while appearing independent, are actually contradictory as they have opposite implications of enhancing or reducing ESG-related mandatory disclosure.

Under the potential contradiction in the SEC's objectives, one natural research question arises: *Does mandatory disclosure impact firms' ESG profiles?* It is uncertain how this deburdening provision, which reduces mandatory disclosure, might influence ESG profiles such as disclosure and scores. On the one hand, reducing mandatory disclosure requirements could lead firms to increase their ESG activities by reallocating resources freed from compliance burdens toward ESG initiatives, voluntarily enhancing ESG disclosures to signal commitment, or mitigating information asymmetry to reduce the cost of capital. On the other hand, firms may decrease their ESG efforts due to reduced external pressure, a shift in focus away from ESG priorities, or mechanical reductions in ESG reporting as certain data are no longer required. Alternatively, firms already optimizing their ESG activities might exhibit no change, as their practices are driven by strategic objectives and stakeholder expectations independent of regulatory mandates. Thus, it is ex ante unclear whether the reduction in mandatory disclosure

leads to an increase, decrease, or no change in ESG profiles.

To understand the relationship between a decrease in mandatory disclosure and ESG practices, I exploit a quasi-natural experiment in the United States involving a significant rule change in the definition of smaller reporting companies (SRCs) from the SEC around 2018. Specifically, when firms qualify as smaller reporting companies, they are permitted to decrease the disclosure of certain information in their SEC filings. On June 28, 2018, the SEC expanded the scope of SRC companies; the new definition of smaller reporting companies allows companies with public floats of less than $250 million to provide scaled disclosures, compared to the previous threshold of $75 million.[1] Due to the regulatory change, more companies qualify for this SRC classification and can benefit from the reduced disclosure requirements. The SRC reform serves as a policy shock to mandatory disclosure. An important feature of the SRC reforms in the ESG context is that some of the disclosure provisions from which smaller reporting companies are exempt are directly or indirectly related to corporate ESG efforts. In addition, previous studies have primarily focused on accounting disclosure as a key channel for public awareness of corporate ESG practices, such as annual report disclosures for social disclosure (Patten, 1991; Chan, Watson, and Woodliff, 2014) or environmental information in MD&A and notes (Hughes, Anderson, and Golden, 2001). In this context, the reduction in the burden of mandatory disclosure, directly or indirectly linked to ESG, can be perceived as a form of alleviated ESG disclosure pressure. Hence, this policy change enables me to observe firms that transitioned into SRC status around 2018 and analyze how their ESG efforts subsequently changed under mandatory disclosure relief.

In my paper, I carry out a series of analyses to examine the impacts of this reform on firms' engagement in ESG profiles. Initially, I employ a difference-in-differences (DID) analysis, wherein I contrast alterations in ESG information, including ESG disclosure and score, before and after the reform implementation among treated and control firms. Subsequently, I adopt the triple-DID method to investigate how variations in firm-level attributes influence the changes

[1] https://www.sec.gov/news/press-release/2018-116

in ESG activities for treated firms during the period surrounding the reform. Specifically, I concentrate on certain firm-level characteristics—board characteristics, ESG-focused investors, corporate governance, and financial constraints—which have been previously demonstrated to be connected with ESG behaviors in existing research. Lastly, to further distinguish whether changes in ESG scores are also driven by adjustments to real ESG activities, I examine more direct measures of ESG outcomes, such as carbon emissions and donation amounts, which reflect actual ESG efforts.

I begin by examining how reduced mandatory disclosure affects ESG disclosure. Specifically, I find that treated firms newly eligible for reduced disclosure under the SRC rule change significantly decrease environment-related words in the "Item 1A. Risk Factors" section of their 10-K reports and the file size of their DEF 14A filings, which are corporate governance-focused documents. Furthermore, based on ESG disclosures retrieved from the Refinitiv Eikon database, I find that treated firms significantly reduce the extent and quality of important ESG-related information and their commitment to publishing ESG reports or sections following mandatory disclosure relief. Moreover, this impact is consistently observed across the areas of environmental, social, and governance disclosures. Overall, my results highlight the significant effect of reduced mandatory disclosure on ESG reporting in financial statements and ESG database.

Next, I extend my analysis to ESG scores, as ESG disclosure plays a significant role in shaping the final ESG score (Santamaria, Paolone, Cucari, and Dezi, 2021; Lopez-de-Silanes, McCahery, and Pudschedl, 2020). Specifically, following the implementation of the SRC reform, treated firms exhibited a reduction in their ESG scores by approximately 7.8% more than control firms. Within the three E/S/G categories, environmental and governance scores experienced declines of approximately 26.6% and 13.2%, respectively. Furthermore, within the three subcategories of the environmental domain, treated firms demonstrate notably reduced scores in terms of environmental innovation and resource utilization. In the realm of social aspect, I observe that treated firms receive lower scores in relation to human rights and workforce-related factors. Concerning governance dimension, I show that treated firms have lower scores in terms

of management and CSR Strategy.

The main result remains robust after conducting a series of robustness tests, including employing different ESG databases, such as Bloomberg and Sustainalytics, to demonstrate that results are not sensitive to the choice of a particular ESG database (Berg, Koelbel, and Rigobon, 2022), using different bandwidths to account for potential variations, testing with placebo reform periods and thresholds to rule out spurious effects, applying propensity score matching to control for selection bias, and excluding firms with public floats near the cutoff to mitigate potential manipulation. These additional checks further strengthen the validity of the findings.

I next investigate whether the effect of the reform on ESG profiles varies according to firm-level attributes that may indicate firms' focus on ESG as a first-order consideration. Specifically, I examine whether the observed decrease in ESG profiles is attenuated for firms with higher board gender diversity, ESG-linked executive compensation, ESG-focused investors, and strong governance structures, as these attributes may proxy for a greater commitment to ESG principles. I find that treated firms with these attributes experience a mitigated decline in ESG profiles after the reform, suggesting that firms for which ESG is a strategic priority are less affected by the reduced disclosure requirements. Conversely, firms facing greater financial constraints experience an exacerbated decrease in ESG profiles, indicating that financial limitations may hinder their ability to maintain ESG commitments when disclosure requirements are relaxed. The findings, despite potential endogeneity concerns that firms with ESG-focused practices may have unobserved attributes influencing their ESG practices, provide circumstantial evidence that firms which have strategically integrated ESG disclosures and practices to cater to diverse stakeholders (Pellegrino and Lodhia, 2012; Cornaggia and Cornaggia, 2023) are less impacted by mandatory disclosure changes due to their commitment to maintaining ESG profiles, regardless of regulatory shifts.

The results thus far suggest that the reduced mandatory disclosure leads to less ESG disclosure for the typical small U.S. public firm, possibly resulting in lower ESG scores. Lastly, I

investigate whether the reduced ESG scores are also driven, in part, by adjustments to real ESG activities. However, ex ante, there are three reasons to suspect that changes in real activities may be minimal. First, such changes typically take a long time due to firms' strategic planning, resource allocation, or operational adjustments (Van Duuren, Plantinga, and Scholtens, 2016; Ferreira, 2022). Second, empirical evidence from previous studies shows that the SRC reform's mandatory disclosure changes do not significantly affect firms' overall investment (Gustafson and Shin, 2024; Wang, 2023), implying that firms may not adjust their capital expenditures in ways that meaningfully influence real ESG activities. Third, the decrease in ESG disclosure and score I have discussed is primarily driven by firms that do not prioritize ESG profiles as key outcomes. With these considerations, I conduct tests on real ESG activities, such as emissions and donations, and find no significant changes among firms that disclose this information. This lack of findings in real ESG activities suggests that firms adjusting their disclosures and scores are those that do not prioritize ESG practices, while firms that do prioritize ESG ensure their scores remain unaffected.

My paper contributes to several strands of literature. First, my research expands the current literature on the relationship between disclosure deregulation and ESG efforts to include a broader context, utilizing exogenous variation in disclosure burden to establish causality. Existing research on disclosure deregulation explores the effects of the Sarbanes-Oxley Act (e.g., Bargeron, Lehn, and Zutter, 2010; Kang, Liu, and Qi, 2010; Gao and Zhang, 2019), the SEC's establishment of SRCs in 2007 (Cheng, Liao, and Zhang, 2013), and the Jumpstart Our Business Startups Act (e.g., Dambra and Gustafson, 2021; Lewis and White, 2023), yielding varied results. Of particular relevance to my study, Wang (2023) utilizes the same 2018 SRC reform and finds that, despite treated firms saving on audit fees, they do not significantly allocate these retained resources to increasing investment activities. Additionally, several studies, including Barth, McNichols, and Wilson (1997), Hess (2007), and more recent research such as Chen, Hung, and Wang (2018), Jackson, Bartosch, Avetisyan, Kinderman, and Knudsen (2020), and Fiechter, Hitz, and Lehmann (2022), indicate that ESG disclosure and score tend to improve

under regulations, including mandatory disclosure related to ESG activities. However, while these studies investigate the impact of mandatory ESG disclosure on ESG activities, they do not explore how mandatory disclosure, in general, affects ESG activities more broadly. My research contributes to this literature by examining the broader influence of mandatory disclosure on ESG activities, extending beyond existing research on the relationship between mandatory disclosure and overall investment.

Second, this paper, in anticipation of upcoming ESG disclosure obligations, has potential preemptive policy implications. As stated, recent SEC regulations, proposed on March 21, 2022, aim to enhance climate disclosures for larger corporations, requiring attestation reports on Scope 1 and 2 emissions. My findings suggest that firms less committed to ESG practices—those that do not prioritize ESG as a first-order consideration and potentially face greater ESG risks—are the ones most likely to reduce their disclosures in response to reduced mandatory disclosure requirements. From a policy perspective, this presents a challenge, as these are precisely the firms for which increased transparency is most needed. Analyzing how companies with reduced disclosure obligations respond to ESG concerns can offer insights into policy implications by incorporating these considerations into the SEC's forthcoming, more explicit ESG disclosure requirements.

The rest of the paper is organized as follows. I discuss institutional details regarding the 2018 SRC rule reform in Section 2. I develop hypotheses in Section 3. Section 4 presents the data and methodology, while Section 5 presents the empirical results. Section 6 presents robustness test results. Section 7 concludes by discussing the contributions and implications of my findings.

2. Background on reform

2.1. Revised definitions for smaller reporting companies: A regulatory disclosure shock

A "Smaller Reporting Company (SRC)" represents the smallest group of businesses obligated to submit annual reports to the Securities and Exchange Commission (SEC) in the United

States. Unlike larger companies, these small reporting companies are not held to the same requirements for sharing financial data and making disclosures. They are required to disclose less historical information, are granted more time to submit it to the SEC, and can voluntarily share this information with investors. Appendix A provides a summary of the scaled disclosure standards applicable to SRCs.

Originally, when the SEC introduced the category of SRCs on December 19, 2007, to provide disclosure relief to smaller businesses, SRCs were defined as those having a public float up to $75 million or zero public float but annual revenues under $50 million. On June 28, 2018, however, the SEC made revisions to the criteria used to classify companies, following its proposal on June 27, 2016, to increase the threshold for firms to qualify as SRCs. In line with the new definition, a company qualifies as an SRC if it meets either of the following conditions: (i) a public float of less than $250 million or (ii) annual revenues of less than $100 million if it also has either no public float or a public float of less than $700 million. These updated definitions for SRCs became effective on September 10, 2018. Figure 1 depicts the contrasting definitions of smaller reporting companies, comparing the former and the updated criteria. The purpose of these revisions was to "increase" the pool of companies that qualify for relaxed disclosure requirements. This, in turn, would decrease the financial and administrative burdens associated with compliance for smaller qualifying companies that opt for such reduced disclosures. This adjustment effectively permits a broader range of firms to submit reports with fewer extensive disclosures.

FIGURE 1 ABOUT HERE

The easing of disclosure regulations was viewed favorably by many companies, especially smaller emerging businesses.[2] Advocates of the 2018 amendments to the SRC definition, including the Small Business Committee, asserted that compliance costs redirect capital and resources away from research and development, despite some commenters, such as the CFA

[2]https://www.sec.gov/files/rules/final/2018/33-10513.pdf

Institute, expressing the view that the potential savings in compliance costs may be minimal.[3]

2.2. SEC's ESG disclosure policy

The SEC did not originally impose a mandatory disclosure requirement for ESG information, despite having provided guidelines on climate change and other ESG-related disclosures over the past decade (Dabbebi, Lassoued, and Khanchel, 2022). However, the SEC has been addressing the demand for climate-related financial disclosure amid increasing interest in disclosures about climate change. For instance, the Sustainability Accounting Standards Board (2016) analyzed over 276 non-form comments submitted to the SEC, finding that two-thirds expressed sustainability-related concerns; more than 80% of these comments advocated for enhanced sustainability information in SEC filings, while only 10% opposed SEC requirements.[4]

In this milieu, the SEC has recently implemented obligations for ESG disclosures. On March 15, 2021, the SEC announced its intention to evaluate disclosure rules on climate change with the goal of ensuring consistency, comparability, and reliability.[5] Furthermore, on March 21, 2022, the SEC issued a proposed regulation aimed at amplifying and standardizing climate disclosure prerequisites applicable to companies. The proposed rules from the SEC necessitate larger corporations to provide attestation reports, verified by independent auditors, regarding their Scope 1 and 2 emissions. Conversely, SRCs are granted exceptions from revealing Scope 3 GHG emissions. Additionally, SRCs would benefit from an extra year of transition, implying that all other obligatory disclosures would be mandated by 2025. Regarding these proposed rules, the SEC has received over 5,000 comment letters from businesses, organizations, and politicians addressing this issue and ESG disclosure,[6] which shows the importance and social interest of the matter.

Although these ESG disclosure regulations will become mandatory starting in 2025, the 2018 SRC rule reform discussed in this paper can offer preemptive policy implications with regard

[3]https://www.sec.gov/comments/s7-12-16/s71216-20.pdf
[4]https://www.sasb.org/wp-content/uploads/2019/08/StateofDisclosure-Report-113016v2-1.pdf
[5]https://www.sec.gov/news/public-statement/lee-climate-change-disclosures
[6]https://www.sec.gov/comments/climate-disclosure/cll12.htm

to the upcoming ESG disclosure obligations set by the SEC. This is because SRC's reduced mandatory disclosure items are directly or indirectly related to the company's ESG activities. Specifically, these reduced disclosure obligations are directly associated with the G component of the ESG framework, while also holding an indirect connection to the E and S components:[7]

- **G components directly linked to disclosure items for SRC**: For instance, disclosure items such as Executive Compensation (Item 402), Corporate Governance (Item 407), and Management's Discussion and Analysis of Financial Condition and Results of Operations (Item 303) are linked with matters of corporate governance. Furthermore, because ESG rating agencies highly value how well a company manages shareholder interests, considering it a crucial factor when assessing governance, the disclosure item concerning the Market Price of and Dividends on the Registrant's Common Equity and Related Stockholder Matters (Item 201) is also connected to the governance aspect.

- **E and S components indirectly linked to disclosure items for SRC**: In contrast to the direct linkage observed with the G component, the E and S components exhibit a more indirect relationship with these disclosure obligations. For example, companies may invest in environmentally-friendly technology or abstain from investing in environmentally detrimental assets. Or they could enhance the frequency of equipment maintenance, leading to a decreased environmental footprint. Such investments and expenditures are intertwined with the company's cash flows, thereby imparting relevance to the disclosure items. Within this context, even though the prevailing disclosure regulations by the SEC do not necessitate the distinct reporting of the E and S components themselves, there remains an indirect correlation between these components and disclosure aspects, such as Selected Financial Data (Item 301) and Supplementary Financial Information (Item 302). Meanwhile, with regard to Transactions with Related Persons, Promoters, and Certain Control Persons (Item 404), its relevance lies in connection to the S Component, primarily concerning matters of business ethics. Notably, this

[7] Appendix A offers an overview of the scaled disclosure criteria relevant to SRCs.

particular item stands out as an exception where the stipulated criteria for smaller reporting companies are more rigorous compared to those applied to larger reporting entities. Unlike various other disclosure items, when a company attains the SRC status, it is burdened to provide a more comprehensive and detailed disclosure for this specific item.

In this regard, while the 2018 SRC rule reform indirectly correlates with these environmental and social disclosure aspects, analyzing how companies with reduced disclosure obligations responded to ESG concerns can provide insights into the potential policy implications regarding how companies will incorporate these considerations into the SEC's forthcoming, more explicit ESG disclosure requirements.

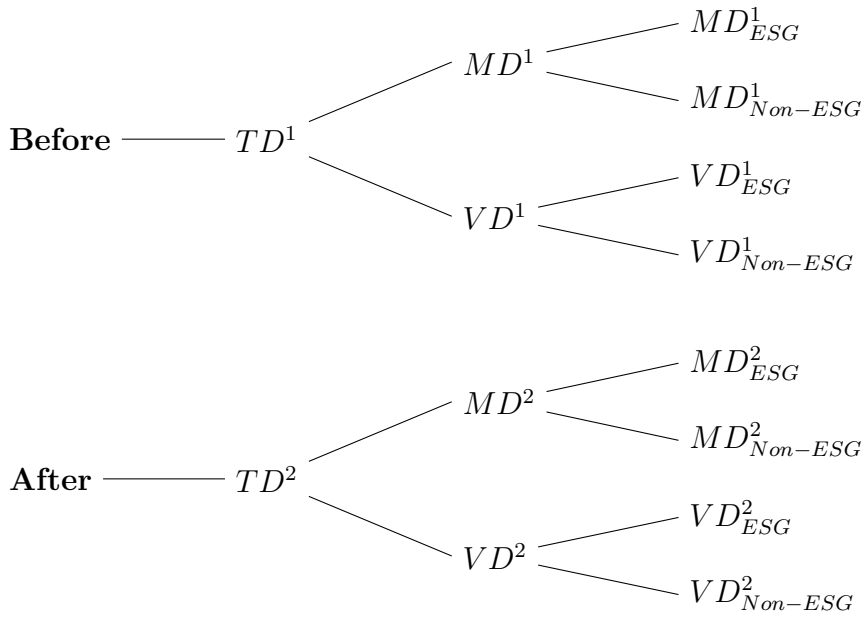
3. Hypothesis development

3.1. Motivation

The SRC reform is a disclosure shock that has changed the mandatory disclosure regulations. Companies newly classified as SRC no longer have to disclose as much as before and can save costs by reducing disclosure. As a result, financial statements may become more uncertain, and information disclosure costs may decrease. However, the choice of whether companies newly classified as SRC reduce disclosure is voluntary, and it is unclear whether and how the change in mandatory disclosure policy actually affects companies' ESG information disclosure.

Notably, the traditional theory linking mandatory and voluntary disclosures as complements or substitutes does not fully explain the impact of changes in mandatory disclosure regulations due to the SRC disclosure shock on ESG disclosures. This is because ESG disclosure is not entirely voluntary, and the status of some ESG items may change depending on a company's SRC status. In other words, ESG disclosures consist of both mandatory and voluntary components (Holder-Webb, Cohen, Nath, and Wood, 2008; Hope and Lu, 2020). Specifically, certain ESG-related information must be disclosed by firms according to SEC rules, particularly in mandatory filings like the 10-K, proxy statements, and other corporate reports. For exam-

ple, as discussed in Appendix A, governance disclosures—such as Corporate Governance (Item 407), Executive Compensation (Item 402), and Management's Discussion & Analysis of Financial Condition and Results of Operations (Item 303)—are mandatory for non-SRC firms, but SRC firms can choose whether to disclose them voluntarily. In addition to mandatory disclosures, firms can also choose to provide voluntary governance information, often including details not required by SEC regulations but considered important for investor relations and corporate image.



To illustrate this relationship, total disclosure before the SRC reform (TD^1) consists of mandatory disclosure (MD^1) and voluntary disclosure (VD^1). Each is further broken down into mandatory ESG disclosure (MD^1_{ESG}), mandatory non-ESG disclosure ($MD^1_{Non\text{-}ESG}$), voluntary ESG disclosure (VD^1_{ESG}), and voluntary non-ESG disclosure ($VD^1_{Non\text{-}ESG}$). Similarly, total disclosure after the SRC reform (TD^2) consists of mandatory disclosure (MD^2) and voluntary disclosure (VD^2), which include mandatory ESG disclosure (MD^2_{ESG}), mandatory non-ESG disclosure ($MD^2_{Non\text{-}ESG}$), voluntary ESG disclosure (VD^2_{ESG}), and voluntary non-ESG disclosure ($VD^2_{Non\text{-}ESG}$). It is uncertain whether total ESG disclosure before the reform ($MD^1_{ESG}+VD^1_{ESG}$) will be greater than total ESG disclosure after the reform ($MD^2_{ESG}+VD^2_{ESG}$).

Given that the SRC reform relaxes mandatory disclosure requirements, it is reasonable to assume that $MD^2_{ESG} \leq MD^1_{ESG}$, as firms are no longer obligated to disclose certain ESG information. However, the change in voluntary ESG disclosure, $VD^2_{ESG} - VD^1_{ESG}$, is uncertain. Firms may choose to compensate for reduced mandatory disclosures by increasing voluntary disclosures, keep them the same, or even decrease them further. Furthermore, despite the relaxation of mandatory disclosure requirements, firms may not necessarily reduce their voluntary disclosures. Some firms may prefer to maintain their existing disclosure practices rather than adapt to new regulatory changes (Cohen, Malloy, and Nguyen, 2020), voluntarily continuing to disclose ESG information previously required under mandatory disclosure. Therefore, even though $MD^2_{ESG} \leq MD^1_{ESG}$, it is possible that $VD^2_{ESG} \geq VD^1_{ESG}$, offsetting the decrease in mandatory disclosures. This indicates that changes in mandatory disclosure may not necessarily lead to a reduction in total ESG disclosures. By specifically examining these inequalities, I highlight the non-obvious nature of the net effect on ESG disclosures, emphasizing the need for empirical investigation to determine how firms adjust their overall ESG disclosures ($MD^2_{ESG} - MD^1_{ESG} + VD^2_{ESG} - VD^1_{ESG}$) in response to changes in mandatory requirements.

In this context, firms are reorganizing to reach a new equilibrium regarding disclosure before and after the SRC reform. Under this new equilibrium, ESG database agents will ultimately evaluate companies' ESG practices based on the disclosed information and produce an ESG score. Within this framework, I investigate how changes in mandatory disclosure regulations influence the overall ESG disclosure by companies. Specifically, I examine whether the reduction in mandatory disclosure requirements leads to a corresponding decrease or increase in total ESG disclosures. Furthermore, I explore whether these changes in ESG disclosures result in corresponding changes in the companies' ESG scores.

3.2. Reduced mandatory disclosure and ESG profile

On the one hand, a reduction in mandatory disclosures may eventually lead to a decrease in ESG disclosures and profiles. Firms may perceive ESG profiles as costly and not intrinsically aligned with their core business activities. In such circumstances, it is possible that they might

be motivated to curtail their dedication to ESG profiles, particularly when confronted with an alleviation of the mandatory disclosure. This perspective is fundamentally connected with the view that mandatory disclosure and voluntary disclosure are complements; when mandatory disclosure decreases, firms may also reduce voluntary disclosures, including ESG disclosures. Specifically for ESG practices, if firms perceive reduced mandatory disclosure as an opportunity to lower overall disclosure, they might reduce their ESG disclosures and efforts accordingly. This could lead to a decline in ESG score, as firms are less transparent and less accountable to stakeholders regarding their ESG profiles. In this context, several previous studies emphasized that the comprehensive disclosure of information constitutes a crucial aspect of ESG practices. Chen, Hung, and Wang (2018) show that mandatory ESG disclosure creates a sense of responsibility for firms to enhance their commitment to ESG, leading to a wider range of ESG activities across various issues as they compare and disclose their actions alongside peer firms. Hess (2007) contends that the implementation of mandatory non-financial disclosure regulations serves the purpose of promoting transparency, thereby diminishing information asymmetries that may exist between businesses and their stakeholders. Based on the above considerations, I hypothesize that treated firms will decrease ESG practice after the SEC's small reporting companies rule reform. Hence, I test the following:

Hypothesis 1a: Treated firms decrease ESG profiles after the SRC reform.

On the other hand, considering the managerial cost and effort associated with mandatory disclosure, a reduction in mandatory disclosure may lessen the pressure on firms to focus on short-term financial metrics, allowing them to allocate more attention and resources to long-term investments such as ESG practices. In other words, with fewer mandatory reporting requirements, managers might not feel compelled to prioritize short-term performance indicators to satisfy investors or analysts (Kraft, Vashishtha, and Venkatachalam, 2017). This shift could free up managerial resources to invest in long-term projects that may not yield immediate fi-

nancial returns but are beneficial in the long run (Dambra and Gustafson, 2021; Lewis and White, 2023). Additionally, the cost savings from reduced disclosure efforts can be reallocated to fund these long-term investments. Advocates supporting the amendments (e.g., Small Business Committee) also argue that treated firms, when relieved from disclosure requirements, can save resources by reducing disclosures and allocate those saved resources to investments, ultimately increasing their overall investment. Given that ESG profiles often involve immediate costs with long-term benefits (e.g., Oikonomou, Platanakis, and Sutcliffe, 2018; Cox, Brammer, and Millington, 2004; Hillman and Keim, 2001), treated firms under disclosure relief may be likely to increase their ESG investment. Furthermore, as firms enhance their ESG efforts, they might choose to voluntarily disclose this information to stakeholders, leveraging voluntary disclosure to signal their commitment to long-term value creation. Based on the above considerations, I hypothesize that treated firms will enhance ESG practice after the small reporting companies rule reform. Hence, I test the following:

Hypothesis 1b: Treated firms enhance ESG profiles after the SRC reform.

3.3. The moderating effects: board and shareholder attributes

I next explore the possible mechanisms through which specific firm-level characteristics can either amplify or alleviate the impact of the small reporting companies (SRC) rule reform on ESG profiles. In particular, I examine whether the effect of the reform on ESG profiles varies according to firm-level attributes that may indicate the firm's focus on ESG as a first-order consideration. Firms voluntarily disclose information when the benefits outweigh the costs (Verrecchia, 1983), and with the SRC reform reducing mandatory disclosure requirements, they may now reassess the cost-benefit tradeoff of continuing ESG disclosures. As they reevaluate this cost-benefit analysis, adjusting ESG practices can interact with stakeholders such as ESG-focused executives and investors (Cornaggia and Cornaggia, 2023). Even if they can save costs by not disclosing ESG information due to reduced mandatory requirements, firms may choose

to maintain their ESG commitments if they have already strategically integrated ESG practices and disclosures to cater to a variety of stakeholders. Therefore, if the benefits of disclosing ESG information—or of maintaining ESG practices—exceed the costs, firms are likely to maintain or even enhance their ESG efforts. Conversely, if the costs are too burdensome and the stakeholder benefits are insufficient, firms may reduce their ESG efforts. These benefits and costs are influenced by firm-specific characteristics, which can explain the heterogeneous responses among firms to the SRC reform.

First, I investigate whether board gender diversity mitigates the negative effect of the small reporting companies rule reform on ESG profiles. Previous research indicates that female managers tend to demonstrate more altruistic personalities and have a beneficial impact on ESG profiles. In particular, the positive attributes that female members contribute to corporate groups encompass a compassionate demeanor, an awareness of ethical or societal concerns (Mason and Mudrack, 1996; Williams, 2003), and an engaged approach to decision-making (Erkut, Kramer, and Konrad, 2008), which have a direct or indirect impact on ESG. Firms with higher board gender diversity may have already strategically integrated ESG practices and consider them a first-order concern, making them less responsive to changes in mandatory disclosure requirements. Ben-Amar, Chang, and McIlkenny (2017) observe a connection wherein the extent of voluntary climate change disclosure, indicative of a commitment to sustainability, increases in tandem with the proportion of women serving on the board. McGuinness, Vieito, and Wang (2017) demonstrate a connection between the advancement of ESG in China and the rise in the count of women holding board positions, further indicating that enhanced gender diversity within senior management teams fosters more robust ESG outcomes. Therefore, I hypothesize that firms with higher board gender diversity, having already prioritized ESG as a strategic commitment, will exhibit a mitigated decrease in ESG profiles following the SRC reform. Based on the above arguments, I hypothesize board gender diversity may mitigate the negative effects of the smaller reporting companies rule reform on ESG in treated firms. Hence, I test the following:

Hypothesis 2: Among treated firms, firms with higher board gender diversity experience a mitigated decrease in ESG profiles after the SRC reform.

I next examine whether firms, where CEO compensation is tied to ESG profiles, are less likely to reduce their ESG practices, even when granted disclosure relief. Amidst the increasing global focus on ESG management, companies are integrating ESG factors into executive compensation arrangements. For instance, in the United States, the majority of S&P 500 corporations align executive compensation with ESG profiles, with the percentage growing from 66% in 2020 to 73% in 2021 (Churchville, 2022). Furthermore, these trends are also being explored and discussed within academic discourse, where several studies are delving into the effects of ESG-related executive compensation on ESG profiles. In particular, Hong, Li, and Minor (2016) demonstrate that the presence of compensation agreements linked to ESG within the United States leads to an enhancement in ESG profiles. Haque (2017) identifies a positive correlation between ESG-based compensation and carbon performance, implying that implementing sustainable compensation policies encourages managers to actively tackle environmental issues. Luo, Wu, and Zhang (2021) find that connecting executive pay to ESG objectives prompts companies to willingly disclose their carbon emissions transparency, leading to enhanced quality and more comprehensive reporting. This implies that tying CEO compensation to ESG profiles increases the personal benefits for managers to uphold ESG practices, making the cost of voluntary disclosure more acceptable. These studies show that managers' personal motivations and goals, especially when their compensation is linked to ESG factors, can be key determinants in shaping a company's ESG activities. Thus, firms with ESG-linked executive compensation may maintain their ESG commitments regardless of changes in mandatory disclosure requirements. Based on the above discussion, I hypothesize that firms, where CEO compensation is linked to ESG profiles, are less inclined to diminish their ESG practices, even in the presence of reduced mandatory disclosure. Hence, I test the following:

Hypothesis 3: Among treated firms, firms with ESG-related executive compensation experience a mitigated decrease in ESG profiles after the SRC reform.

Next, I conjecture that firms may want to manage ESG practices more if they are being monitored closely by ESG-focused investors. If a firm has many investors who are concerned about ESG matters, they will put in more effort to manage their ESG ratings. This is because these investors demand a higher level of corporate social responsibility and the company wants to meet their expectations. In such cases, the benefits of disclosing ESG information are heightened due to investor pressure and the potential for investment retention or attraction. In this situation, investors who prioritize ESG factors will diminish the incentives for companies to engage in opportunistic practices that undermine ESG efforts. For instance, Cornaggia and Cornaggia (2023) show that firms respond to ESG raters' emphasis on specific criteria by enhancing reported performance on those aspects, especially among companies with ESG-focused institutional investors, aiming to align with ESG stakeholders' interests. Li, Patel, and Ramani (2021) find that ESG-friendly mutual funds are inclined to support the adoption of ESG-related profiles and exert a favorable impact on the ESG activities of the companies they invest in. Nguyen, Kecskés, and Mansi (2020) observe that investors who have a preference for ESG considerations can more effectively monitor firms' disclosure of ESG information, fulfilling their responsibilities to shareholders and gaining increased business advantages. Therefore, firms with ESG-focused investors are likely to perceive greater benefits from continuing ESG disclosures, mitigating the negative impact of reduced mandatory disclosure requirements. Therefore, firms with ESG-focused investors may maintain their ESG practices regardless of reduced mandatory disclosure requirements, as they have already committed to meeting the expectations of these stakeholders. Based on the above arguments, I hypothesize ESG-focused investors diminish the incentives for managers to engage in opportunistic behaviors that undermine ESG profiles; consequently, the negative effect of the small reporting companies rule reform on ESG in treated firms is alleviated through the involvement of ESG-focused investors. Hence, I test the following:

Hypothesis 4: Among treated firms, firms with ESG-focused investors experience a mitigated decrease in ESG profiles after the SRC reform.

I next explore whether effective governance alleviates the adverse impact of the small reporting companies rule reform on ESG profiles. Campbell (2007) raises the question of firms' motivations for engaging in socially responsible actions, particularly at the organizational level, and suggests that companies operating under institutional factors such as regulations, oversight, cultural norms, and engagement with stakeholders are more inclined to participate in ESG profiles. Jing, Keasey, Lim, and Xu (2022) discover that companies raise their toxic pollution emissions after experiencing reduced analyst coverage, underscoring the influence of analysts in monitoring and influencing corporate environmental strategies. Similarly, several researches find that ESG profiles exhibit a positive correlation with corporate governance measures, including factors like board autonomy and diversity, institutional ownership, and the degree of sensitivity to pay-for-performance (Chava, 2014; McGuinness, Vieito, and Wang, 2017; Ferrell, Liang, and Renneboog, 2016). Therefore, firms with stronger governance may maintain their ESG commitments regardless of regulatory shifts. Based on the above arguments, I hypothesize good governance may reduce the negative effects of the smaller reporting companies rule reform on ESG in treated firms. Hence, I test the following:

Hypothesis 5: Among treated firms, firms with higher governance experience a mitigated decrease in ESG profiles after the SRC reform.

3.4. The exacerbating effects: financial constraints

I next examine whether financial constraints can motivate managers to further reduce their ESG efforts, particularly in instances where disclosure obligations are loosened. Engaging in ESG demands an infusion of capital, which might otherwise be channeled into other opera-

tional requirements. Given that financial theory posits that a firm's primary objective is to maximize shareholders' wealth, it becomes crucial for firms to strike a balance between maintaining adequate liquidity and pursuing ESG profiles (Chan, Chou, and Lo, 2017). In this sense, in cases where firms encounter significant financial constraints, managers may not prioritize performing ESG to mitigate the risk of their firms encountering financial difficulties or to capitalize on future investment prospects. For instance, Chan, Chou, and Lo (2017) indicate that firms with financial constraints often refrain from involvement in ESG activities, particularly when assessed using the KZ index. Hong, Kubik, and Scheinkman (2012) find that less financially constrained firms have the capacity to allocate more capital to ESG, establishing a causal link between financial constraints and increased corporate social responsibility by using several exogenous variations. Cormier and Magnan (1999) suggest that a firm's financial condition is a key determinant of environmental disclosure because, for firms in poor financial condition, disclosing additional information about their environmental obligations or commitments is unlikely to enhance their reputation among creditors and suppliers. If so, companies facing significant financial challenges might decrease their emphasis on ESG profiles, particularly if there is a reduction in disclosure requirements. Therefore, when disclosure requirements are relaxed, financially constrained firms are more likely to reduce their ESG activities and disclosures to conserve resources, leading to a greater decrease in ESG profiles. Based on the above arguments, I hypothesize financial constraints might further motivate managers to decrease their ESG efforts when disclosure requirements are eased in treated firms. Hence, I test the following:

Hypothesis 6: Among treated firms, firms with higher financial constraints experience an exacerbated decrease in ESG profiles after the SRC reform.

4. Data and summary statistics

To empirically test the hypothesis developed above, I examine the impact of reduced mandatory disclosure on ESG profiles by using the SEC's 2018 rule reform as an exogenous shock to firms' ESG profiles proxied by ESG scores. To do so, I collect stock market and accounting data from the Compustat database, ESG scores, board demographic, and ESG compensation schemes data from Thomson Reuters' Refinitiv Eikon database (hereafter, Eikon)[8], ownership data from Thomson Reuters' Mutual Funds Holding (s12) and Institutional Holding (13f) database, the number of analyst data from the IBES database, and public float data from the SEC's EDGAR database.[9]

Note that Eikon's ESG coverage increases over time, which is also related to the distribution of firm size proxied by public float. Specifically, Eikon initially focused on reporting ESG information for large companies but has since expanded its coverage to include smaller companies.[10] Figure 2 shows the availability of Eikon's ESG data varies tremendously over the period, and this ESG coverage is related to firm size, proxied by public float.[11]

FIGURE 2 ABOUT HERE

4.1. Sample and variable construction

In my analysis, I confine the sample to the period between 2016 and 2019 to compare firms uniformly before and after the 2018 reform. I exclude firms that meet the following criteria: (i) firms with a public float exceeding $500 million in the pre-reform year, or (ii) firms with

[8]Regarding the matter of merging the Eikon ESG database with other databases, to identify unique ESG information for each firm in every year, I exclude preferred stocks and stocks listed on the OTC market. Subsequently, the remaining common stocks are primarily matched with COMPUSTAT using the CUSIP code, while unmatched stocks are matched based on Ticker, CIK code, and company name.

[9]https://www.sec.gov/about/divisions-offices/division-economic-risk-analysis/data/financial-statement-and-notes-data-set

[10]This is consistent with several previous studies reporting a noticeable increase in Eikon's ESG Coverage around 2016. (e.g. Lindsey, Pruitt, and Schiller, 2022; de la Fuente, Ortiz, and Velasco, 2022)

[11]As Eikon's ESG coverage has increased rapidly since 2016, this paper faces a challenge because it is difficult to directly test parallel trends before this period due to the limited number of data. Nevertheless, to address this issue, I conduct several placebo tests as robustness checks in this paper.

a revenue of less than $100 million and a public float between $250 million and $700 million in the pre-reform year. Specifically, my main focus is to ascertain whether companies with a public float ranging from $75 million to $250 million exhibited a shift in their ESG practices subsequent to obtaining the SRC status. To ensure a more balanced comparison, thus, I first remove companies of substantial size by excluding those with a public float exceeding $500 million. Furthermore, I drop out companies with revenues ranging from $250 million to $700 million to concentrate more rigorously on the influence of the public float threshold, without the potential distortion of results stemming from the revenue threshold.[12] This allows for a more reasonable evaluation of the impact SRC designation had on their ESG strategies in contrast to those entities that did not secure such a status. I restrict the sample to firms with non-missing variables needed for the analyses. My final sample includes 1,142 firms with 3,032 firm-year observations.

The main dependent variables in this paper are Eikon's ESG information. Eikon's ESG assessments are divided into three main categories: environmental (E), social (S), and governance (G), with each category containing multiple subcategories. Specifically, the environmental section comprises three subcategories: emissions, environmental innovation, and resource use. In the social section, there are four subcategories: community, human rights, product responsibility, and workforce. Likewise, the governance section includes three subcategories: management, shareholder practices, and CSR Strategy. More detailed explanations of ESG subcategory scores are provided in Appendix B. As these subcategory scores are directly disclosed in Eikon, it becomes possible to observe how the reduction in disclosure burden resulting from reforms eventually affects individual ESG practices.

Measures of ESG practices for each firm are defined as follows. *Log(ESG)* is defined as the natural logarithm of one plus a firm's ESG profiles score. Similarly, *Log(E)*, *Log(S)*, and *Log(G)* are defined as the natural logarithm of one plus a firm's E, S, and G performance scores, respec-

[12]However, there are 49 firms (165 firm-years observations) with revenues between $250 million and $700 million and public float below $500 million; these firms do not have a substantial impact on the overall results. I also conduct an identical analysis but with these firms data included and the results remain qualitatively the same.

tively. I also include the subcategory scores of E, S, and G. *Emission*, *Innovation*, and *Resource Use* are defined as the natural logarithm of one plus a firm's emission, environmental innovation, and resource use scores, respectively. *Community*, *Human Right*, *Product Responsibility*, and *Workforce* are defined as the natural logarithm of one plus a firm's community, human rights, product responsibility, and workforce scores, respectively. *Management*, *Shareholder*, and *CSR Strategy* are defined as the natural logarithm of one plus a firm's management, shareholder practices, and CSR Strategy scores, respectively.

Given that Eikon's ESG scores are based on the transparency of companies' reporting, it is also important to delve into the disclosure effect of companies regarding ESG issues.[13] Measures of ESG disclosures for each firm are defined as follows. $ESG^{KPI}_{Disclosure}$ is defined as a ratio of disclosed Key Performance Indicator (hereafter, KPI) ESG items to total KPI ESG items. This suggests the quality and extent to which companies disclose important ESG-related information that significantly affects Eikon's ESG score evaluation.[14,15] Similarly, $E^{KPI}_{Disclosure}$, $S^{KPI}_{Disclosure}$, and $G^{KPI}_{Disclosure}$ are defined as ratios of disclosed KPI E, S, and G items to total KPI E, S, and G items, respectively. Additionally, I also utilize Eikon's CSR reporting score, which assesses the procedural quality of CSR disclosures, such as publishing a separate CSR report or section in its annual report. In particular, $Log(CSR^{Report}_{Score})$ is defined as the natural logarithm of one plus a firm's Eikon ESG reporting score. $I(CSR^{Report}_{Score}>0)$ is defined as an indicator variable that equals one if a firm's Eikon CSR reporting score is above zero and zero otherwise.

[13]In Eikon, companies that do not report any information within a category are automatically assigned a zero ESG score. Thus, the complete absence of information disclosure will have a more negative impact on the ESG score.

[14]Specifically, as of 2021, Eikon collect a total of 737 firm-level ESG items, including ESG score items. Of these, a subset of 186 items represents the most important data measures used in ESG scoring. The list of KPIs differs from one industry to another based on the importance of data measures for each industry. These 186 items are derived through a relevance assessment in each industry and are subsequently used to calculate the ESG scores of the companies.

[15]Not reporting 'immaterial' ESG data has a limited impact on a company's ESG score, whereas not reporting on 'highly material' ESG data will negatively affect a company's ESG score. For example, Scope 3 carbon emissions information is considered a KPI in the Automobiles & Auto Parts and Chemicals industries, but it is not considered a KPI in the Collective Investments and Biotechnology & Medical Research industries. Consequently, failure to disclose Scope 3 carbon emissions information for companies in the former industry has a significant negative impact on Eikon's ESG score, whereas this is not the case for companies in the latter industry.

As proxies for ESG-practice mechanisms, I consider board characteristic channels. Female$^{\%}$ is the ratio of female directors to total directors. $ESG^{D}_{Investor}$ is an indicator variable that equals one if ESG-focused institutional investors have outstanding shares of the firm and zero otherwise. Second, I consider ESG-focused investor channels. ESGOwn$^{\%}$ is ownership by ESG-focused institutional investors scaled by ownership by all investors. Specifically, I examine s12 and 13f filings to calculate the proportion of shares held by institutional investors prioritizing ESG factors, relying on the names of these investors for identification.[16] Third, I examine governance channels using analyst coverage. Analyst is analyst coverage, measured as the number of analysts with annual earnings forecasts. Fourth, I consider the severity of financial constraints channels. Based on Hadlock and Pierce (2010), SAIndex is defined as an index of financial constraints. Similarly, Z-score is defined as an index of financial risk based on the Altman Z-Score (1968) model. A higher (lower) value of the SAIndex (Z-score) indicates that there are serious financial constraints or risks in a firm. Additionally, I classify firms with persistent negative net cash flows in pre-reform periods as financially constrained, aligning with findings from previous literature (e.g., Allayannis and Mozumdar, 2004; Denis and McKeon, 2021).

Control variables are defined as follows. Firm size (*Size*) is the natural logarithm of total assets. Market-to-book ratio (*MTB*) is the ratio of the market value of equity to total assets. ROA (*ROA*) is return on assets, which is calculated by dividing a firm's net income by its total assets. Investment (*Investment*) is the sum of capital expenditures and research development expenditures scaled by total assets. Leverage ratio (*Leverage*) is the ratio of debt to total assets. $Log(Float)$ is the natural logarithm of one plus a firm's public float. $Log(Float)^2$ is the square of the natural logarithm of one plus a firm's public float. All financial variables are defined in Appendix C and winsorized at 1 percent on both tails of the distribution.

[16]Following Cornaggia and Cornaggia (2023), I categorize a fund as an ESG-focused investor if its name includes any of the specified keywords: "carbon", "clean", "climate", "ESG", "CSR", "environment", "ethics", "ethical", "green", "justice", "planet", "social", "socially", "sustain", "sustainable", "sustainability", "responsible", "responsibility", "water", "women", and "values". Note that some firms may have minor ESG-related investors that might not be apparent in s12 and 13f filings. Nevertheless, these ESG-focused investors can be indicative of the presence of a major ESG investor.

4.2. Summary statistics

I report summary statistics for sample firms from 2016 through 2019 in Table 1. In my sample, approximately 38.4% of the firms are categorized as affected by the SEC's reform of the smaller reporting company rule. The average size of firms in the full sample is 6.283, which is equivalent to about $2.40 billion in total assets. This implies that firms included in the sample are generally small to medium-sized. Eikon's ESG scores are computed on a scale of up to 100 points. The mean values of ESG scores, E scores, S scores, and G scores are 26.52, 8.03, 29.02, and 37.67 points, respectively. As such, on average, small and medium-sized U.S. companies exhibit weaker ESG profiles, particularly in the environmental and social sectors. Additionally, the mean values of the ESG, E, S, and G KPI disclosure ratios ($ESG^{KPI}_{Disclosure}$, $E^{KPI}_{Disclosure}$, $S^{KPI}_{Disclosure}$, and $G^{KPI}_{Disclosure}$) are 34.9%, 5.0%, 24.2%, and 59.5%, respectively. This suggests that small and medium-sized U.S. companies tend to disclose a more significant amount of important governance-related information in their ESG disclosures. Moreover, around 14.8% of the firms in the sample have executive contracts that are explicitly linked to ESG profiles ($ESGPay^{D}$). This finding indicates that small and medium-sized U.S. companies in the sample do not generally place high importance on ESG matters.

TABLE 1 ABOUT HERE

5. Empirical results

In this section, I test for the effects of the SRC reform on firms' ESG efforts and I further investigate how particular firm-level characteristics relate to changes in ESG among the treated firms.

5.1. The effects of the SRC reform on ESG

5.1.1. Main results: ESG disclosure and score

I initiate my analysis by testing Hypothesis 1a (1b), which posits that treated firms decrease (enhance) ESG profiles after the SRC reform. I conduct difference-in-differences regressions of firms' ESG and each environmental (E), social (S), and governance (G) information around the SRC reform. One difference is based on whether a firm's public float is between $75 million and $250 million in the pre-reform year, indicating that these firms transition from not being classified as small reporting companies before the reform to being categorized as such after the reform. The other difference resides within the time dimension—before and after the implementation of the SRC reform. Figure 3 illustrates our identification strategy.

FIGURE 3 ABOUT HERE

The regression specification is as follows:

$$Y_{i,t}^{ESG} = \beta_0 + \beta_1 Treated_i + \beta_2 After_t + \beta_3 Treated_i \times After_t + X_{i,t} + FE \tag{1}$$

$Y_{i,t}^{ESG}$ denotes the ESG information variables, including ESG score ($Log(ESG)$) and ESG disclosure-related variables ($ESG_{Disclosure}^{KPI}$, $Log(ESG_{Score}^{Report})$, and $I(ESG_{Score}^{Report}>0)$). Specifically, $Log(ESG)$ is the natural logarithm of one plus a firm's ESG score. $ESG_{Disclosure}^{KPI}$ is defined as a ratio of disclosed KPI ESG items to total KPI ESG items. $Log(CSR_{Score}^{Report})$ is defined as the natural logarithm of one plus a firm's Eikon CSR reporting score. $I(CSR_{Score}^{Report}>0)$ is defined as an indicator variable that equals one if a firm's Eikon CSR reporting score is above zero and zero otherwise. *Treated* is an indicator variable that equals one if a firm's public float is between $75 million and $250 million in the pre-reform year and zero otherwise. *After* is also an indicator variable that equals one for the post-reform period after the effective date of the SRC

reform, September 10, 2018, and zero otherwise.[17] If Hypothesis 1a (1b) is valid, the coefficient on *Treated* × *After* (β_3) should be negative (positive) and statistically significant. X_i indicates firm-level characteristics that I control for in the regressions. I control for *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. FE indicates firm and year fixed effects. I cluster standard errors at the firm level.

Given that the impact of ESG disclosure is inevitably tied to the underlying ESG activities, I begin by examining the impact of reduced disclosure from the SRC reform on ESG disclosure. In other words, the first question I ask is whether treated firms decrease their ESG disclosure after disclosure relief. Specifically, I analyze how the reduction in mandatory disclosure due to SRC reform affects ESG-related disclosures within the text of the 10-K and how it impacts ESG disclosures in the Eikon database.

Table A1 in the Internet Appendix presents the results of the analysis of the 10-K filings. I include firm fixed effects to obtain the results reported in all columns and additionally include year fixed effects for even-numbered columns.[18] Specifically, I perform the baseline difference-in-differences analysis using equation (1) while restricting the sample to firms with public floats between $0 and $500 million. First, I examine the count of ESG-related keywords from the "Risk Factors" section of Item 1A in 10-K filings.[19] $Log(E_{Num}^{Item\ 1A})$, $Log(S_{Num}^{Item\ 1A})$, and $Log(G_{Num}^{Item\ 1A})$ are the natural logarithms of the counts of environmental, social, and governance-related keywords, respectively, extracted from the Item 1A section in 10-K filings. Second, I investigate the file size of DEF 14A (Proxy Statement), which contains corporate governance-related documents. Since firms disclose corporate governance-related information practically

[17] In this regard, for example, if Eikon reports ESG information before September 10, 2018, I consider it as part of the pre-reform period, even if this information was reported in 2018. For robustness checking, I regard ESG information reported after June 28, 2018 (the announcement date of this SRC reform), as post-reform and conduct the same analysis. However, the results remain qualitatively unchanged.

[18] In this and other tables throughout the paper, *After* variable is estimated with year fixed effects because it captures the period after September 10, 2018, rather than the entire year of 2018. In particular, year fixed effects control for year-over-year changes, and *After* specifically identifies the timing of the reform, allowing for the distinction of the treatment effect starting from the reform date.

[19] In particular, I use the ESG dictionary proposed by Baier, Berninger, and Kiesel (2020), which consists of 34 subcategories that include 482 words. The ESG word list can be accessed electronically at https://sites.google.com/site/fkieselde/research.

through DEF 14A filings in connection with SRC disclosure accommodation, the file size of this document serves as a proxy for governance disclosure. $Log(G^{DEF\ 14A}_{FileSize})$ is the natural logarithm of the file size of DEF 14A. In columns (1)–(2), the coefficients on *Treated* × *After* are negative and statistically significant, suggesting that after the SRC reform, treated firms significantly reduced their environmental-related keywords in the "Risk Factors" section of Item 1A in 10-K filings. However, the coefficients in columns (3)–(6) are negative but statistically insignificant. In columns (7)–(8), the coefficients on *Treated* × *After* are negative and statistically significant, indicating that treated firms significantly reduced their governance-related disclosure in the DEF 14A filings.

Table 2 presents the results of the analysis of ESG disclosures in the Eikon database. In columns (1)–(2), the coefficient on *Treated* × *After* is negative and statistically significant, implying that during the post-reform period, ESG disclosures of treated firms significantly decrease. In addition, the coefficient on *Treated* × *After* in columns (3)–(4) is negative and statistically significant, indicating that following the enactment of the SRC reform, CSR reporting scores of treated firms decreased by 22.7% (22.8%) more compared to those of control firms. Because Eikon's CSR reporting score reflects the company's commitment to either publishing a separate CSR report or including a section in its annual report on this subject, the result suggests that treated firms may reduce the procedural quality of ESG disclosures under disclosure relief. Similarly, the coefficient on *Treated* × *After* in columns (5)–(6) is negative and statistically significant, suggesting that treated firms having no ESG reporting activity increase during the post-reform period.

TABLE 2 ABOUT HERE

Furthermore, I separate the ESG disclosure ratio into its component parts, revealing that the post-reform decrease in ESG disclosure is significant not only in governance but also in environmental and social disclosures. Table 3 presents the results of the analysis. The coefficient estimates on *Treated* × *After* are all negative and statistically significant when the environ-

mental, social, and governance disclosure ratio are used as the dependent variable. The results suggest that, while the reduced disclosure obligations for SRCs may be indirectly related to environmental and social components by nature, treated firms also decrease their environmental and social disclosures in addition to governance disclosures. This result somewhat aligns well with prior literature that emphasizes accounting disclosure as a primary channel through which the public learns about corporate environmental and social practices (Patten, 1991; Chan, Watson, and Woodliff, 2014; Hughes, Anderson, and Golden, 2001). As such, the reduction in mandatory disclosure due to the SRC reform results in treated firms reducing the quality and effort of ESG disclosure, and this impact is observed consistently across the areas of environment, society, and governance.

TABLE 3 ABOUT HERE

A natural question that arises from the above empirical results is whether, if ESG disclosure has decreased due to a decrease in mandatory disclosure, this decrease in mandatory disclosure ultimately leads to a decrease in ESG practice. Table 4 presents the results of the analysis. In columns (1)–(2), the coefficient on *Treated* × *After* is negative and statistically significant, thereby supporting Hypothesis 1a. The estimated coefficient shown in column (2) indicates that, during the post-reform period, ESG scores of treated firms decreased by 7.8% more compared to those of control firms. As such, the results reported in this table indicate that firms are inclined to reduce their ESG practices after the disclosure relief, implying the presence of opportunistic behavior regarding their ESG efforts, even though the coefficients on *Treated* × *After* in columns (5) and (6) are negative but statistically insignificant. Similarly, the estimated coefficient in columns (4) and (8) indicates that following the enactment of the SRC reform, treated firms' E and G scores exhibited a substantial decrease of 26.6% and 13.2%, respectively, in comparison to the E and G scores of control firms. In columns (5) and (6), however, the coefficient on *Treated* × *After* is negative but statistically insignificant, implying that treated firms did not experience significant changes in S scores when compared with control firms. As

such, treated firms diminished ESG profiles with decreased disclosure obligations, primarily due to deteriorated environmental and governance practices.

TABLE 4 ABOUT HERE

5.1.2. ESG Subcategories

In this section, I explore subcategories of ESG to ascertain which sorts of ESG activities are related to decreased ESG endeavors, subsequent to the implementation of reduced mandatory disclosure, as a consequence of the SRC reform. Based on the findings presented in Table 4, I conduct a more comprehensive examination of the subcategories encompassed within the realms of environmental, social, and governance practices. As previously indicated, Eikon assesses subcategories encompassing environmental, social, and governance aspects, with comprehensive details regarding these subcategories summarized in Appendix B.

The results for the environmental subcategories are presented in Panel A of Table 5. The dependent variables for columns (1) and (2), (3) and (4), and (5) and (6) are, respectively, the natural logarithms of one plus emission, environmental innovation, and resource use. The coefficient on *Treated* × *After* is negative and statistically significant in columns (3)–(6). These results imply that scores for environmental innovation and resource use decrease to a statistically significant extent. Meanwhile, scores associated with emission do not change following enactment of the SRC reform. These findings indicate a significant decrease in scores related to environmental innovation and resource use. In contrast, the scores associated with emissions remain unaffected subsequent to the implementation of the SRC reform.

The results for social subcategories are presented in Panel B of Table 5. The dependent variables for columns (1) and (2), (3) and (4), (5) and (6), and (7) and (8) are, respectively, the natural logarithms of one plus community, human right, product responsibility, and workforce. The coefficient on *Treated* × *After* is negative and statistically significant in subcategories related to human rights (columns (3) and (4)) and workforce (columns (7) and (8)). As a result, the scores for these social subcategories show a significant decrease following the implementa-

tion of the SRC reform. The coefficient on *Treated* × *After* is, however, positive and weakly significant in community (column (1) and (2)).

The results for the governance subcategories are presented in Panel C of Table 5. The dependent variables for columns (1) and (2), (3) and (4), and (5) and (6) are, respectively, the natural logarithms of one plus management, shareholder, and CSR Strategy. The coefficient on *Treated* × *After* is negative and statistically significant in columns (1)–(2) and (5)–(6). These findings suggest a statistically significant reduction in scores for management and CSR Strategy. Conversely, the scores associated with shareholders remain unchanged following the enactment of the SRC reform.

TABLE 5 ABOUT HERE

5.2. Firm-level characteristics and the impact of the SRC reform on ESG

In the previous section, I observe a negative impact of the SRC reform on ESG profiles in treated firms, thereby supporting Hypothesis 1a. I next investigate whether the effect of the reform on ESG profiles varies according to firm-level attributes that may indicate the firm's focus on ESG as a first-order consideration. Specifically, I examine whether the observed decrease in ESG profiles is attenuated for firms with higher board gender diversity (Hypothesis 2), ESG-linked executive compensation (Hypothesis 3), ESG-focused investors (Hypothesis 4), and strong governance structures (Hypothesis 5), as these attributes may proxy for a greater commitment to ESG principles, and financial constraints (Hypothesis 6), as this attribute may proxy for a lesser commitment to ESG principles. To investigate this, I employ triple-difference regressions, wherein the third difference is determined by the degree of these firm-level characteristics.

5.2.1. Board and shareholder attenuation

I test Hypotheses 2 through 5, which posit that treated firms with higher board gender diversity, ESG-related executive compensation, ESG-focused investors, or greater analyst cov-

erage, experience a mitigated decrease in ESG profiles following the SRC reform. I anticipate that these board and shareholder characteristics may attenuate managers' behavior of reducing ESG practices when confronted with disclosure relief. The variable $HighFemale^D$ is an indicator variable that equals one if a firm's female director ratio is above the median value and zero otherwise in the pre-reform year. The variable $ESGPay^D$ is an indicator variable that equals one if a firm adopts a non-financial performance-oriented compensation policy for executives based on ESG or sustainability factors and zero otherwise in the pre-reform year. The variable $ESG^D_{Investor}$ is an indicator variable that equals one if ESG-focused institutional investors have outstanding shares of the firm and zero otherwise. The variable $HighAnalyst^D$ is an indicator variable that equals one if a firm's analyst coverage is above the median value and zero otherwise in the pre-reform year.

I report the results in Table 6. I include firm fixed effects to obtain the results reported in all columns and additionally include year fixed effects for even-numbered columns. In columns (1) and (2), the coefficients on $Treated \times After \times HighFemale^D$ and $Treated \times After \times ESGPay^D$ are positive and statistically significant, though the coefficients on $Treated \times After$ are negative and statistically significant. This result suggests that treated firms with higher board gender diversity and ESG-related executive compensation mitigate the reduction in ESG scores caused by the reform, while treated firms with less board gender diversity and without ESG-related executive compensation experience more significant reductions in ESG scores. In column (3), the coefficients on $Treated \times After \times ESG^D_{Investor}$ are positive and statistically significant, even though the coefficients on $Treated \times After$ are negative and statistically significant. This result suggests that treated firms with ESG-focused investors mitigate the negative impact of the reform on ESG scores, while treated firms without ESG-focused investors experience larger reductions in ESG scores. In column (4), the coefficients on $Treated \times After \times HighAnalyst^D$ are positive and statistically significant, although the coefficient on $Treated \times After$ is negative and statistically significant. This finding suggests that treated firms with stronger governance, proxied by greater analyst coverage, attenuate the negative impact of the reform on ESG

scores, whereas treated firms with lower governance experience more significant reductions in ESG scores.[20]

These findings suggest that firms that have already strategically integrated ESG practices and disclosures to cater to a variety of stakeholders are less impacted by changes in mandatory disclosure requirements, as they have already committed to maintaining their ESG efforts regardless of regulatory shifts. Since these firms consider ESG a strategic priority, the SRC reform has less effect on their ESG activities.

TABLE 6 ABOUT HERE

5.2.2. Financial constraints exacerbation

I test Hypothesis 6, which posits that treated firms with higher financial constraints show a more pronounced decrease in ESG profiles after the SRC reform. I use three proxies to measure financial constraints: the Altman Z-score, the SA Index, and persistent negative cash flow. The variable $LowZ^D$ indicates whether a firm's Altman Z-score is below the median value and zero otherwise in the pre-reform year. Similarly, the variable $HighSA^D$ indicates whether a firm's SA Index is above the median value and zero otherwise in the pre-reform year. A lower Altman Z-score (higher SA Index) suggests that the firm is more distress-related or financially constrained. The variable $Persistent_{NCF}^{Negative}$ is an indicator variable that equals one if a firm's net cash flow is persistently negative in the pre-reform periods and zero otherwise.

I report the results in Table 7. I include firm fixed effects to obtain the results reported in all columns and additionally include year fixed effects for even-numbered columns. In columns (1) and (2), the coefficients on $Treated \times After \times LowZ^D$, $Treated \times After \times HighSA^D$, and $Treated \times After \times Persistent_{NCF}^{Negative}$ are negative and statistically significant. This result suggests that treated firms with greater financial constraints, as proxied by below-median Altman-Z scores,

[20] I conduct a similar analysis on ESG disclosure ratio and obtained similar results to Table 6. Specifically, treated firms with stronger governance, proxied by greater analyst coverage, which attenuated the negative impact of the reform on ESG scores, experienced a mitigated decrease in ESG disclosure after the SRC reform. I report these results in Table A2 of the Internet Appendix.

above-median SA Index values, or persistent negative cash flow, experience a more pronounced decrease in ESG scores. Therefore, my results support Hypothesis 6, indicating that treated firms with higher financial constraints exacerbate the reduction in ESG profiles following the SRC reform.[21]

These findings imply that financially constrained firms, which may not prioritize ESG as a strategic commitment, are more sensitive to the cost aspects of ESG practices. When disclosure requirements are relaxed, these firms are more likely to reduce their ESG activities and disclosures to conserve resources. This contrasts with firms that have already strategically integrated ESG practices and maintain their commitments regardless of regulatory shifts.

While this triple-difference regression framework allows for the examination of how firm-level characteristics influence the impact of the SRC reform on ESG profiles, I acknowledge that this analysis, like any other empirical study, may be subject to endogeneity issues. Specifically, firms that choose higher board gender diversity or adopt ESG-focused practices might possess other unobserved characteristics influencing their ESG profiles, such as corporate culture or management quality, which could confound the causal interpretation of the results. These characteristics are not exogenously assigned and may change over time in ways that correlate with other shifts in corporate policies or strategies affecting ESG outcomes. Although I include firm fixed effects to control for time-invariant unobserved heterogeneity, this approach may not fully address time-varying factors or omitted variables related to the treatment effect. Therefore, I interpret the interaction effects observed in my triple-difference analysis cautiously, viewing them more as descriptive associations rather than definitive evidence of causal mechanisms.

TABLE 7 ABOUT HERE

[21] I conduct a similar analysis on the ESG disclosure ratio, and interaction terms with financial constraint measures ($Treated \times After \times LowZ^D$ and $Treated \times After \times HighSA^D$) maintain their negative statistical significance. I report these results in Table A3 of the Internet Appendix.

6. Robustness and additional evidence

6.1. Different bandwidth test

To further support the robustness of the result, in Table 8, I report results on two distinct difference-in-differences analyses based on different bandwidths. In particular, I repeat the baseline test in equation (1) after limiting the sample to firms with public floats between $0 and $250 million (Panel A), and between $75 million and $500 million (Panel B). The dependent variables in these regressions are $Log(ESG)$, $Log(E)$, $Log(S)$, and $Log(G)$, respectively. The former's control group consists of firms that already hold the small reporting company status, while the latter's control group comprises firms that do not have the small reporting status throughout the entire sample period.

In Panel A, the coefficients for *Treated* × *After* are negative and significant in columns (1)((2)), suggesting that following the enactment of the SRC reform, treated firms' ESG scores exhibited a substantial decrease of 13.1% (11.5%) compared to the ESG scores of control firms that already held the small reporting company status. Similarly, in columns (3)–(8), the coefficients for *Treated* × *After* are negative and significant. This indicates that treated firms experienced significant decreases in their E, S, and G scores—23.6% (22.2%), 10.6% (9.3%), and 19.0% (17.0%), respectively—compared to control firms that already held small reporting company status.

In Panel B, the coefficients associated with *Treated* × *After* demonstrate negative significance in columns (1)((2)), implying that subsequent to the implementation of the SRC reform, treated firms experienced a notable reduction in their ESG scores by 3.8% (5.4%) compared to the scores of control firms that already held small reporting company status. Similarly, in columns (3)((4)) and (7)((8)), the coefficients for *Treated* × *After* are negative and statistically significant, signaling significant decreases in treated firms' E and G scores—29.2% (31.4%) and 9.1% (11.4%), respectively—compared to the E and G scores of control firms that lacked small reporting status throughout the entire sample period. However, the coefficient in columns (5)((6)) is even positive and statistically significant. These findings indicate that treated firms

exhibited significant increases in S scores in comparison to control firms that did not have a small reporting status throughout the entire sample period.[22]

TABLE 8 ABOUT HERE

6.2. Placebo reform year test

It is plausible that, irrespective of the SRC reform, small-sized firms with a public float between $75 million and $250 million may reduce their ESG practices. In such a scenario, I should find a negative relationship between ESG scores and firms with a public float between $75 million and $250 million. To test this possibility, I employ three placebo (non-reform) periods: 2015–2018, 2017–2020, and 2018–2021, and repeat the analysis.

I present the results of the placebo reform tests in Table 9. The dependent variable is $Log(ESG)$, with the main variable of interest being $Treated^P \times After^P$. $Treated^P$ is an indicator variable set to one if a firm's public float is between $75 million and $250 million in the pre-reform years (2016, 2018, and 2019), and zero otherwise. $After^P$ is an indicator variable set to one for the post placebo-reform periods following the effective placebo dates (September 10, 2017, 2019, and 2020), and zero otherwise. The coefficient on $Treated^P \times After^P$ is statistically insignificant across all columns, suggesting no discernible relationship between having a public float between $75 million and $250 million and ESG scores during the placebo reform periods. Thus, the results presented in this table imply that the decline in ESG scores for small firms does not occur in the absence of SRC reform.

TABLE 9 ABOUT HERE

[22]One of the reasons for the increase in S scores upon becoming a smaller reporting company, compared to existing larger reporting companies, may be linked to the provision of "Transactions with Related Persons, Promoters, and Certain Control Persons (Item 404)" in Regulation S-K, as shown in Appendix C. This is the only item where the burden on smaller reporting companies exceeds that on larger reporting companies. Specifically, smaller reporting firms are required to disclose transactions exceeding $120,000 or 1% of average assets, along with additional details on underwriting, corporate relationships, promoters, and control persons. These increased disclosure obligations can potentially enhance business ethics, a pivotal criterion in assessing the S score in Eikon, particularly within the Community subcategory, as elaborated in Appendix B.

6.3. Placebo threshold test

To mitigate the concern that my results are driven mainly by the effect of firm size, proxied by public float, on ESG profiles during the sample period, I repeat the analysis using actual and placebo thresholds, restricting firms with a public float below $1,000 million in the pre-reform year. I then plot the coefficients and confidence intervals for interaction terms based on actual thresholds (public float between $75 million and $250 million) or placebo thresholds from Equation (1).

I present the results of the placebo reform tests in Figure 4. When using the placebo threshold to deviate from the actual threshold ($75 million and $250 million), the proportion of correctly defined firms decreases. For instance, with a placebo threshold of $35 million and $75 million, more companies that are always smaller reporting companies are included, resulting in a non-statistically significant interaction term. As the placebo threshold gradually approaches the actual range of $75 million to $250 million, both the statistical significance and the absolute size of the coefficient increase. On the other hand, when using placebo thresholds at $205 million and $380 million, which means more companies not always classified as smaller reporting companies are included, the interaction term remains not statistically significant. As the threshold moves further away from the actual range of $75 million to $250 million, statistical significance decreases, accompanied by a decrease in the absolute size of the coefficient. These findings suggest that our main results are not primarily influenced by the impact of a firm's size on ESG profiles during the sample period.

FIGURE 4 ABOUT HERE

6.4. Propensity score matching

There might be concerns that treated firms significantly differ from control firms in terms of their firm-level characteristics, which could lead to differences in ESG profiles after the SRC reform, regardless of the change in reduced mandatory disclosure. To address this concern, I

employ the propensity score matching method, based on their pre-reform levels of *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, $Log(Float)^2$, and industry, and repeat the DID analysis. I report the post-matching regression results in Table A4 of the Internet Appendix. The results are similar to those observed in the full sample, as reported in Table 4. These findings reinforce the interpretation that the SRC disclosure shock led to a deterioration in ESG profiles in treated firms.

6.5. Donut-hole analysis

Firms often exhibit a tendency toward inertia, preferring to maintain their existing reporting practices rather than undertaking the effort required to change (Cohen, Malloy, and Nguyen, 2020). This inclination to do nothing, or to remain fully reporting, may stem from factors such as reduced fees, time constraints, or the administrative burden associated with altering financial disclosures. Consequently, this behavior can introduce biases into empirical experiments by creating both fake control and fake treated groups. Specifically, some firms may continue full reporting out of laziness or inertia, effectively serving as fake controls, while others might manipulate their public float by lowering it below regulatory thresholds to meet new requirements, thus becoming fake-treated entities. This strategic manipulation, where firms either remain fully reporting due to inertia or adjust their public float to strategically meet regulatory criteria, raises concerns about the potential for experimental pollution in both directions, complicating the differentiation between genuinely compliant firms and those manipulating their status.

To address this concern, I focus on a subset of firms that may manipulate their public float due to size constraints or external factors by excluding firms with public floats near the cutoff, and repeat the DID analysis on those that are less likely to manipulate their float, creating a "donut hole" around the float threshold (Yin, Yao, Chevapatrakul, and Huang, 2024). I report the result in Table A5 of the Internet Appendix. In particular, I present the estimation results for the subsamples from which observations within the 1%, 3%, and 5% radius of the float

threshold are excluded in columns (1)–(2), (3)–(4), and (5)–(6), respectively. The coefficients on *Treated* × *After* in all columns are negative and significant, suggesting that the results are consistent with those observed in the full sample, as reported in Table 4. This shows that the main results are not influenced by firms potentially manipulating their public floats around the cutoff.

6.6. Different database ESG scores

Although this paper primarily relies on ESG data from the Thomson Reuters Refinitiv Eikon database, there are concerns about inconsistencies among different ESG databases. These inconsistencies stem from variations in the scope, measurement, and weighting methodologies used by rating agencies, which can result in differing evaluations of the same company's ESG profiles (Berg, Koelbel, and Rigobon, 2022). Consequently, there may be questions about whether the results in my paper are driven by the use of a specific ESG database. To ensure the robustness of my analysis, I examine whether the main results are robust when using different ESG databases, such as Bloomberg and Sustainalytics, both of which are also considered among the most comprehensive and representative ESG databases.

I present the results in Table 10. Odd-numbered columns use the natural logarithm of 1 plus the ESG disclosure scores from Bloomberg and Sustainalytics, while even-numbered columns employ the natural logarithm of 1 plus the ESG scores from both databases. Columns (1) and (3) show that the coefficient on *Treated* × *After* is negative and statistically significant, suggesting that treated firms may reduce the procedural quality of ESG disclosures—proxied by ESG disclosure scores in Bloomberg and Sustainalytics—under the disclosure relief provided by the SRC reform. Columns (2) and (4) indicate that during the post-reform period, the ESG scores of treated firms decreased by 2.9% in Bloomberg and 4.9% in Sustainalytics, compared to control firms. These results suggest that ESG disclosure has decreased due to a reduction in mandatory disclosure, which ultimately leads to a decrease in ESG practices. As such, the main results are not solely driven by a specific ESG database.

TABLE 10 ABOUT HERE

6.7. Real ESG effect

The results thus far suggest that mandatory disclosure leads to less ESG disclosure for the typical small U.S. public firm, possibly resulting in lower ESG disclosure and lower ESG scores. Lastly, I investigate whether the reduced ESG scores are also driven, in part, by adjustments to real corporate ESG activities. There are, however, several ex-ante reasons to anticipate that changes in real ESG activities due to reduced mandatory disclosure requirements may be minimal. First, implementing substantial alterations in ESG practices typically requires a considerable amount of time, involving strategic planning (Van Duuren, Plantinga, and Scholtens, 2016), resource allocation, or operational adjustments (Ferreira, 2022). Such long-term initiatives are less likely to respond immediately to changes in disclosure regulations. Second, empirical evidence from prior studies examining the impact of the SRC reform on investment found no significant effect on firms' overall investment levels (Gustafson and Shin, 2024; Wang, 2023), suggesting that firms may not be altering their capital expenditures in ways that would affect real ESG activities. Third, the observed reductions in ESG disclosures and scores are primarily driven by firms thatprioritize ESG profiles as key organizational objectives. These firms are less inclined to engage in meaningful ESG activities regardless of disclosure requirements, suggesting that any regulatory changes are more likely to influence their reporting practices rather than prompt adjustments in actual ESG efforts.

To test this, I examine the impact of the reduction in mandatory disclosure on carbon emissions and donations, two variables with sufficient firm-year observations both before and after the SRC reform in Eikon and Bloomberg ESG databases. I present the results in Table 11. In Panel A, the dependent variables are $CO2Sale^{Vol}$, $CO2Sale^{EPA}$, and $CO2Sale^{Combine}$ in columns (1)–(2), (3)–(4), and (5)–(6), respectively. $CO2Sale^{Vol}$ is the amount of carbon emissions voluntarily disclosed in the Eikon and Bloomberg databases, divided by the company's sales. $CO2Sale^{EPA}$ is the amount of carbon emissions mandatorily disclosed to the Environmen-

tal Protection Agency (EPA), divided by the company's sales, and is considered in a different context than $CO2Sale^{Vol}$. Even companies that have reduced their disclosure obligations due to the SRC reform may still have reporting obligations to the EPA. $CO2Sale^{Combine}$ is the sum of carbon emissions voluntarily disclosed to ESG databases and those mandatorily disclosed to the EPA, divided by the company's sales. The coefficients on *Treated* × *After* in columns (1)–(6) are positive but insignificant, with the exception of column (4), where it is marginally significant. This suggests that the observed increase in firms' carbon emissions following the treatment is statistically insignificant across most specifications, indicating no robust evidence of a substantial rise in emissions.

In Panel B, the dependent variables are $DonationSale^{Comm}$ and $DonationSale^{Total}$ in columns (1)–(2) and (3)–(4), respectively. $DonationSale^{Comm}$ is the amount that companies donate to the community, divided by the company's sales. $DonationSale^{Total}$ is the sum of donations made to the community and to political groups, divided by the company's sales. Similar to Panel A, the coefficients on *Treated* × *After* in columns (1)–(4) are positive but insignificant, suggesting that companies which have reduced the burden of mandatory disclosure have not significantly changed their donation amounts.

As a robustness check, I examine the impact of the reduction in mandatory disclosure on disclosure for carbon emissions and donations. I present the results in Table A5 of the Internet Appendix. In Panel A, the dependent variables are $CO2^{Vol}_{Disclose}$, $CO2^{EPA}_{Disclose}$, and $CO2^{Combine}_{Disclose}$ in columns (1)–(2), (3)–(4), and (5)–(6), respectively. In Panel B, the dependent variables are $Donation^{Comm}_{Disclose}$ and $Donation^{Total}_{Disclose}$ in columns (1)–(2) and (3)–(4), respectively. The coefficients on *Treated* × *After* are negative and significant in columns (1)–(2) of Panel A, and columns (1)–(4) of Panel B. These results suggest that companies that have experienced a reduction in their disclosure obligations may have actually disclosed less information related to carbon emissions and donations, but this may not necessarily reflect a decline in ESG activities.

In conclusion, the results suggest that mandatory disclosure reforms have a limited impact on firms' actual ESG activities but primarily affect their disclosure efforts, as indicated by

carbon emissions and donation behavior. This lack of significant changes in real ESG activities suggests that firms reducing their disclosure and experiencing decreased ESG scores are those that do not prioritize ESG profiles, while firms that value ESG do not allow their scores to be affected and maintain their disclosure practices. This finding implies that the observed changes in ESG scores are more likely driven by variations in disclosure practices among firms less committed to ESG, rather than meaningful shifts in corporate ESG policies across the board.

TABLE 11 ABOUT HERE

7. Conclusion

This study investigates the effect of decreased mandatory disclosure on firms' ESG profiles by exploiting a regulatory shift in the SEC's definition of smaller reporting companies (SRCs) in 2018. Utilizing a difference-in-differences framework, I find that firms affected by the SRC reform exhibit a significant decline in ESG disclosure quality and ESG score. The reduction in mandatory disclosure leads to less extensive and lower-quality ESG information being reported, indicating that firms become less transparent about their ESG activities when not obligated to disclose.

I further explore the moderating effects of firm-specific factors on this relationship. The analysis reveals that firms with attributes indicative of a strong commitment to ESG—such as higher board gender diversity, executive compensation linked to ESG metrics, a substantial presence of ESG-focused investors, and robust governance structures—are less affected by the reduction in disclosure requirements. In contrast, firms facing greater financial constraints are more likely to decrease their ESG profiles when disclosure obligations are relaxed, suggesting that financial limitations may hinder sustained ESG engagement in the absence of regulatory mandates. Lastly, I find no significant changes in real ESG activities among firms that disclose this information, such as emissions and donations. These results suggest that firms adjusting their disclosures and scores are those that do not prioritize ESG practices, while firms that do

prioritize ESG ensure their scores remain unaffected.

This research contributes to the understanding of how disclosure regulations impact corporate ESG behavior by providing empirical evidence on the effects of reduced mandatory disclosure on ESG profiles. The findings have significant policy implications, particularly in light of ongoing regulatory developments aimed at enhancing ESG transparency. They underscore the potential for reduced disclosure requirements to inadvertently diminish ESG transparency among firms less committed to ESG practices, challenging the effectiveness of voluntary disclosure regimes in promoting comprehensive ESG reporting.

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Appendix A: Scaled Disclosure Accommodations

Rule	Item	Scaled disclosure
Regulation S-K		
Description of Business	Item 101	Less detailed than the disclosure required for larger reporting companies and only requires disclosure of business development activities for three years rather than five years. Segment reporting is not required.
Market Price of and Dividends on the Registrant's Common Equity and Related Stockholder Matters	Item 201	Stock performance graph not required.
Selected Financial Data	Item 301	Not required.
Supplementary Financial Information	Item 302	Not required.
Management's Discussion & Analysis of Financial Condition and Results of Operations	Item 303	Less detailed than the disclosure required for larger reporting companies. Only requires MD&A for two years rather than three years and no tabular disclosure of contractual obligations.
Quantitative and Qualitative Disclosures about Market Risk	Item 305	Not required.
Executive Compensation	Item 402	Three named executive officers rather than five. Two years of summary compensation table information rather than three. Not required: • Compensation discussion and analysis. • Grants of plan-based awards table. • Option exercises and stock vested table. • Pension benefits table. • Nonqualified deferred compensation table. • Disclosure of compensation policies and practices related to risk management. • Pay ratio disclosure

Rule	Item	Scaled disclosure
Transactions with Related Persons, Promoters and Certain Control Persons	Item 404	**This is the one item where the requirements for smaller reporting companies are more stringent than those for larger reporting companies.** While larger reporting companies have to disclose related person transactions in excess of $120,000, smaller reporting companies **must** disclose transactions that exceed the lesser of $120,000 or 1% of average total assets at year-end for the two most recently completed fiscal years. In addition, smaller reporting companies: • Must provide additional disclosure about underwriting discounts and commissions and corporate parents; and • Must provide disclosure regarding promoters and certain control persons. Not required to disclose policies and procedures for approving related person transactions.
Corporate Governance	Item 407	Not required to provide disclosure on compensation committee interlocks and insider participation or a compensation committee report. Not required to provide audit committee financial expert disclosure until the first annual report after initial registration statement is filed with the SEC.
Prospectus Summary, Risk Factors and Ratio of Earnings to Fixed Charges	Item 503	No ratio of earnings to fixed charges disclosure required. No risk factors required in Exchange Act filings.
Exhibits	Item 601	Statements regarding computation of ratios not required.
Regulation S-X		
Audited Statements of Income, Cash Flows and Changes in Stockholder's Equity	Article 8	Required for two years rather than three years.

Rule	Item	Scaled disclosure
Audited Balance Sheets	Article 8	As with larger reporting companies, required for two years (an increase from the one year required by former Regulation S-B).

Appendix B: Detailed Definitions of ESG Subcategory Scores

Variable	Definition
Environmental subcategories	
Emission	It measures a company's commitment and effectiveness towards reducing environmental emission in the production and operational processes.
Innovation	It reflects a company's capacity to reduce the environmental costs and burdens for its customers, and thereby creating new market opportunities through new environmental technologies and processes or eco-designed products.
Resource Use	It reflects a company's performance and capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management.
Social subcategories	
Community	It measures a company's commitment towards being a good citizen, protecting public health and respecting business ethics.
Human Right	It measures a company's effectiveness towards respecting the fundamental human rights conventions.
Product Responsibility	It reflects a company's capacity to produce quality goods and services integrating the customer's health and safety, integrity and data privacy.
Workforce	It measures a company's effectiveness towards job satisfaction, healthy and safe workplace, maintaining diversity and equal opportunities, and development opportunities for its workforce.
Governance subcategories	
Management	It measures a company's commitment and effectiveness towards following best practice corporate governance principles.

Variable	Definition
Shareholder	It measures a company's effectiveness towards equal treatment of shareholders and the use of anti-takeover devices.
CSR Strategy	It reflects a company's practices to communicate that it integrates the economic (financial), social and environmental dimensions into its day-to-day decision-making processes.

Appendix C: Variable Definitions

Variable	Definition
Treated	An indicator variable that equals one if a firm's public float is between $75 million and $250 million in the pre-reform year (2017) and zero otherwise.
After	An indicator variable that equals one for the post-reform years (2018-2019) and zero otherwise.
$Treated^P$	An indicator variable that equals one if a firm's public float is between $75 million and $250 million in the placebo pre-reform years, i.e., 2016, 2018, and 2019, respectively, and zero otherwise.
$After^P$	An indicator variable that equals one for the post placebo-reform period after the placebo-effective dates, i.e., September 10, 2017, 2019, and 2020, respectively, and zero otherwise.
$Log(ESG)$	The natural logarithm of one plus a firm's ESG profiles score.
$Log(E)$	The natural logarithm of one plus a firm's environmental score.
$Log(S)$	The natural logarithm of one plus a firm's social score.
$Log(G)$	The natural logarithm of one plus a firm's governance score.
$ESG^{KPI}_{Disclosure}$	The ratio of disclosed KPI ESG items to total KPI ESG items.
$E^{KPI}_{Disclosure}$	The ratio of disclosed KPI E items to total KPI E items.
$S^{KPI}_{Disclosure}$	The ratio of disclosed KPI S items to total KPI S items.
$G^{KPI}_{Disclosure}$	The ratio of disclosed KPI G items to total KPI G items.
$Log(CSR^{Report}_{Score})$	The natural logarithm of one plus a firm's Eikon CSR reporting score.
$I(CSR^{Report}_{Score}>0)$	An indicator variable that equals one if a firm's Eikon CSR reporting score is above zero and zero otherwise.
Size	The natural logarithm of total assets.

Variable	Definition
MTB	The ratio of the market value of equity to total assets.
ROA	Return on assets, calculated by dividing a firm's net income by its total assets.
$Investment$	The sum of capital expenditures and research development expenditures scaled by total assets.
$Leverage$	The ratio of debt to total assets.
$Log(Float)$	The natural logarithm of one plus a firm's public float.
$Log(Float)^2$	The square of the natural logarithm of one plus a firm's public float.
$\text{Female}^{\%}$	The ratio of female directors to total directors.
$\text{ESGOwn}^{\%}$	Ownership by ESG-focused institutional investors scaled by ownership by all investors.
Analyst	Analyst coverage, measured as the number of analysts with annual earnings forecasts.
Z-score	An index of financial risk based on Altman Z-score (1968).
SAIndex	An index of financial constraints based on Hadlock and Pierce (2010).
Net Cash Flow	Net cash flow from financing activities.
$HighFemale^D$	An indicator variable that equals one if a firm's female director ratio in the pre-reform year (2017) is above the median value and zero otherwise.
$ESGPay^D$	An indicator variable that equals one if a firm adopts a non-financial performance-oriented compensation policy for executives based on ESG or sustainability factors in the pre-reform year (2017) and zero otherwise.
$ESG^D_{Investor}$	An indicator variable that equals one if ESG-focused institutional investors have outstanding shares of the firm in the pre-reform year (2017) and zero otherwise.
$HighAnalyst^D$	An indicator variable that equals one if a firm's analyst coverage in the pre-reform year (2017) is above the median value and zero otherwise.

Variable	Definition
$LowZ^{D}$	An indicator variable that equals one if a firm's Altman Z-score in the pre-reform year (2017) is below the median value and zero otherwise.
$HighSA^{D}$	An indicator variable that equals one if a firm's SA Index in the pre-reform year (2017) is above the median value and zero otherwise.
$Persistent_{NCF}^{Negative}$	An indicator variable that equals one if a firm's net cash flow is persistently negative in the pre-reform periods and zero otherwise.
$CO2Sale^{Vol}$	The amount of carbon emissions voluntarily disclosed in the Eikon and Bloomberg databases, divided by the company's sales.
$CO2Sale^{EPA}$	The amount of carbon emissions mandatorily disclosed to the Environmental Protection Agency (EPA), divided by the company's sales.
$CO2Sale^{Combine}$	The sum of carbon emissions voluntarily disclosed to ESG databases and those mandatorily disclosed to the EPA, divided by the company's sales.
$DonationSale^{Comm}$	The amount that companies donate to the community, divided by the company's sales.
$DonationSale^{Total}$	The sum of donations made to the community and to political groups, divided by the company's sales.

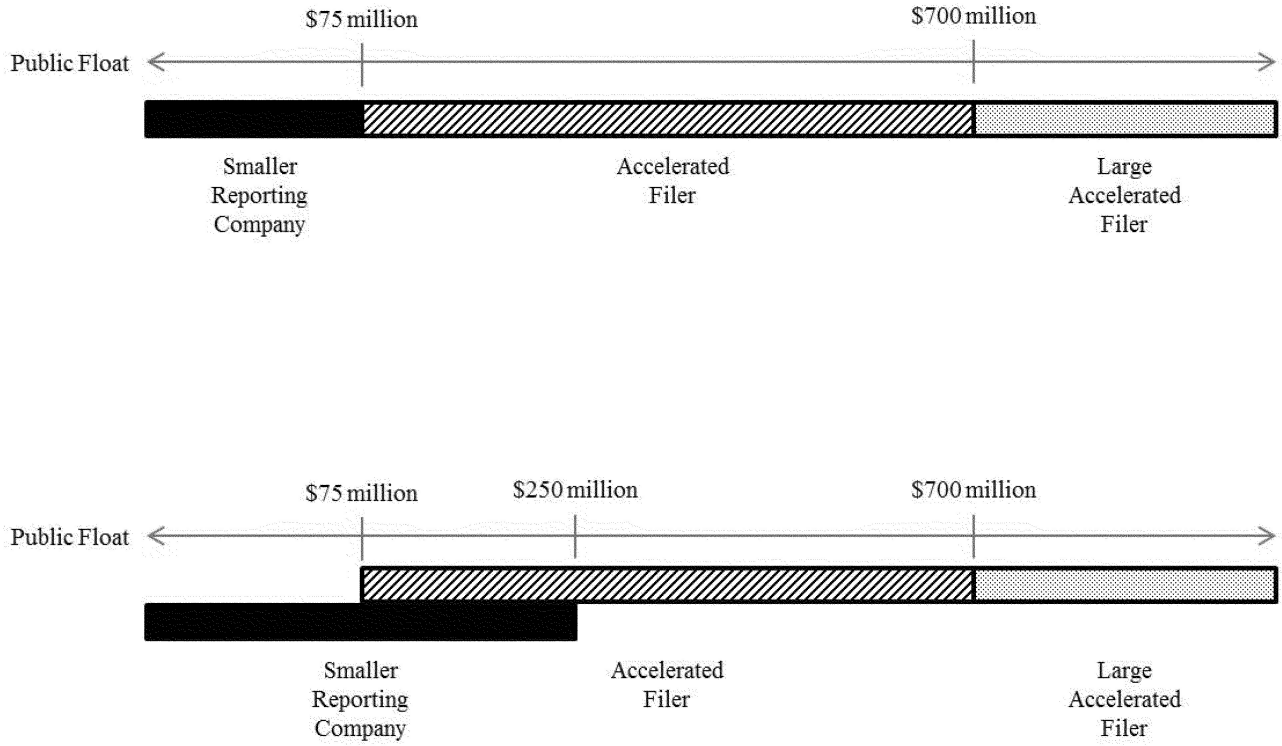

Figure 1 **Definitions of Smaller Reporting Companies**

This figure depicts the contrasting definitions of smaller reporting companies, comparing the former and the updated criteria. The above figure shows that the earlier criterion identified small reporting companies based on a public float of up to $75 million. The below figure demonstrates that, under the amended rule, a company is classified as a smaller reporting company if its public float is less than $250 million. (Source: https://www.federalregister.gov/documents/2018/07/10/2018-14306/smaller-reporting-company-definition)

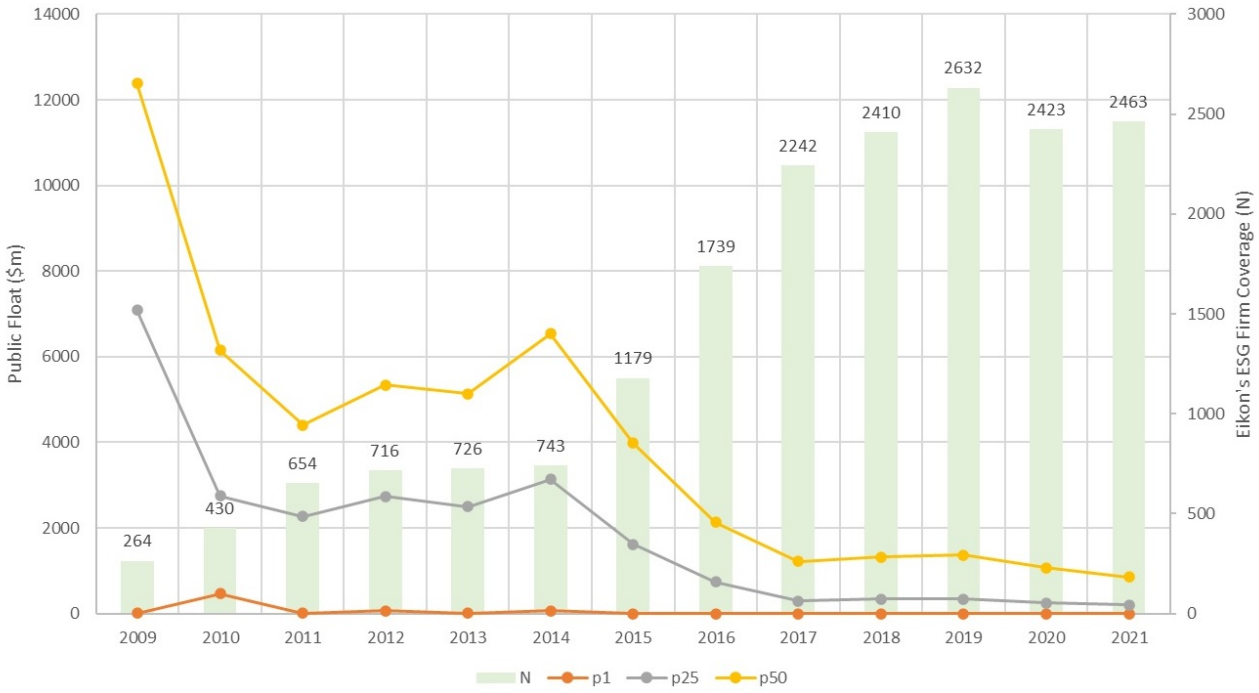

Figure 2 **Public Float and Eikon's ESG Availability for U.S. Firms**

This figure depicts the distribution of U.S. firms' public float with available Eikon's ESG coverage at the percentiles p1, p25, and p50, represented by the orange, gray, and yellow lines, respectively, from 2009 to 2021. The green bars indicate the number of U.S. firms covered by Eikon's ESG database in each year.

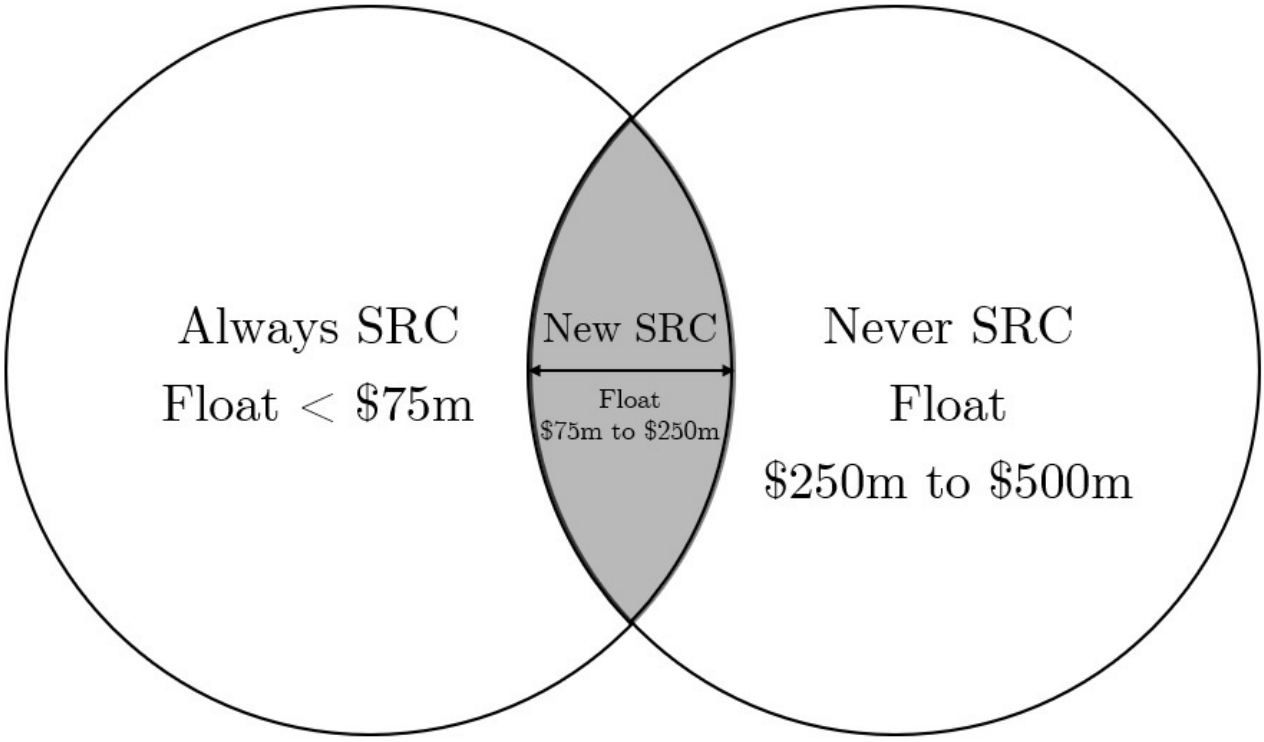

Figure 3 **SRC Reform Identification Strategy**

This figure provides an illustration of my identification strategy for SRC reform. In my paper, I establish two control groups that remain unaffected by changes in regulatory disclosure. The first control group comprises firms with floats below $75 million, consistently maintaining the SRC status (Always SRC). The second control group consists of firms with floats exceeding $250 million, consistently without the SRC status (Never SRC). Thus, my treated group in our quasi-difference-in-difference specification is the set of firms after the SRC reform with floats between $75 million and $250 million (New SRC).

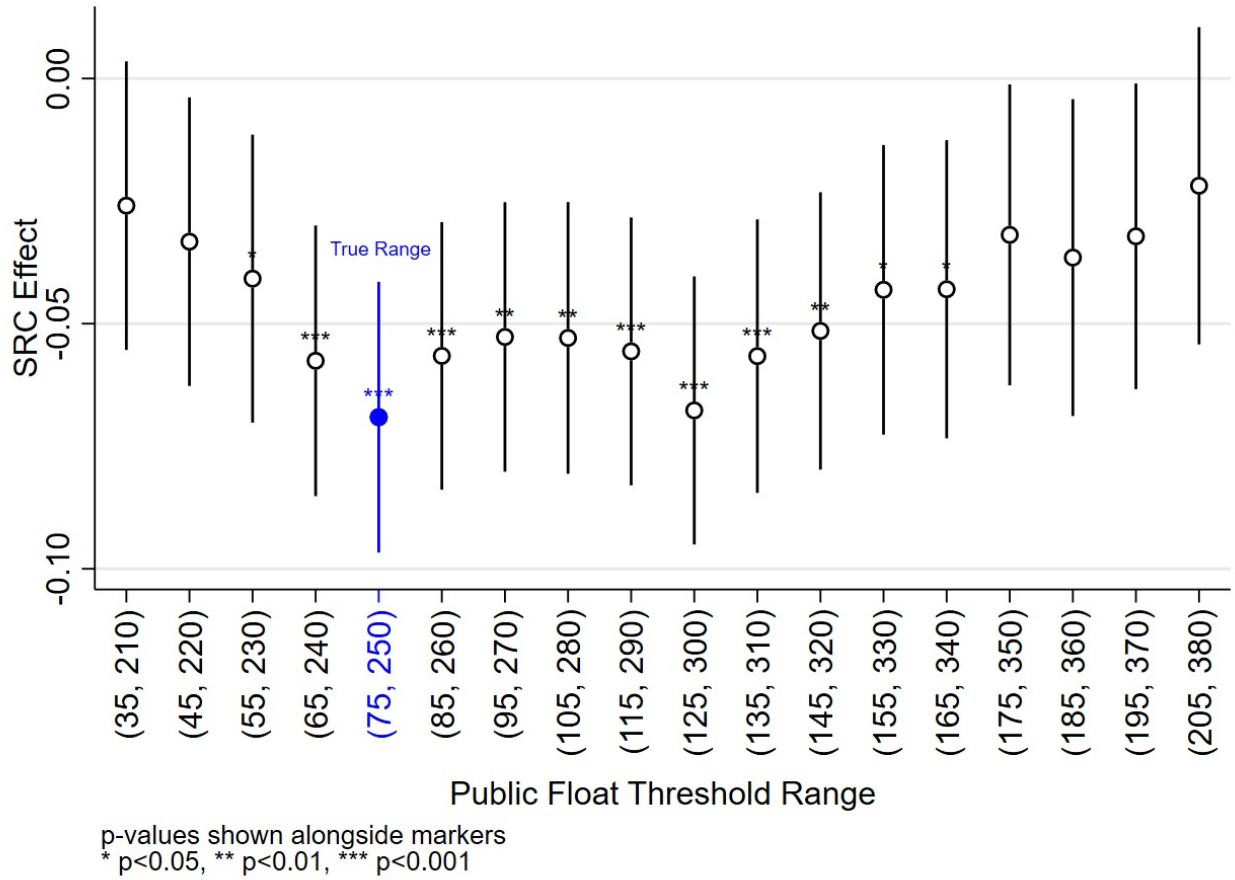

Figure 4 **Placebo Threshold Analysis**

This figure presents the results of difference-in-differences regressions that test the treatment effects of the Smaller Reporting Company rule reform on ESG profiles using the actual and placebo thresholds. I restrict firms with a public float below $1,000 million in the pre-reform year and plot the coefficients and confidence intervals for interaction terms based on actual thresholds (public float between $75 million and $250 million) or placebo thresholds from Equation (1). ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 1 **Summary Statistics**

This table presents summary statistics for sample firms. The sample consists of firms for the period spanning 2016–2019. I exclude firms that meet the following criteria: (i) firms with a public float exceeding $500 million in the pre-reform year, (ii) firms with a revenue of less than $100 million and a public float between $250 million and $700 million in the pre-reform year, or (iii) firms that did not have ESG scores reported in Eikon before the SRC reform. I restrict the sample to firms with non-missing variables needed for the analyses. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C.

	N	Mean	SD	Min	p25	p50	p75	Max
Event-related Variable								
Treated	3032	0.371	0.483	0.000	0.000	0.000	1.000	1.000
After	3032	0.635	0.482	0.000	0.000	1.000	1.000	1.000
ESG-related Variable								
ESG Score	3032	26.524	12.166	0.699	18.142	24.991	33.102	87.983
E Score	3032	8.034	14.494	0.000	0.000	0.000	11.298	96.345
Emission	3032	6.855	15.806	0.000	0.000	0.000	7.016	98.897
Innovation	3032	5.342	15.531	0.000	0.000	0.000	0.000	93.478
Resource Use	3032	6.132	16.598	0.000	0.000	0.000	0.000	99.765
S Score	3032	29.023	15.310	0.459	17.760	27.172	38.428	93.905
Community	3032	43.724	21.597	0.562	30.120	45.145	58.905	98.553
Human Right	3032	6.404	17.655	0.000	0.000	0.000	0.000	96.045
Product Responsibility	3032	31.787	21.900	0.000	17.773	31.283	38.089	98.980
Workforce	3032	27.189	19.691	0.118	11.528	23.472	38.889	99.049
G Score	3032	37.671	20.278	0.562	21.446	35.430	52.666	98.262
Management	3032	41.785	27.678	0.083	17.533	38.241	63.542	99.935
Shareholders	3032	46.657	29.384	0.016	20.447	44.041	72.464	99.983
ESG Strategy	3032	3.767	14.066	0.000	0.000	0.000	0.000	99.567
$ESG^{KPI}_{Disclosure}$	3032	0.349	0.084	0.132	0.297	0.324	0.375	0.812
$E^{KPI}_{Disclosure}$	3032	0.050	0.114	0.000	0.000	0.000	0.043	0.879
$S^{KPI}_{Disclosure}$	3032	0.242	0.104	0.019	0.180	0.222	0.292	0.808
$G^{KPI}_{Disclosure}$	3032	0.595	0.051	0.304	0.571	0.589	0.625	0.857
CSR^{Report}_{Score}	3032	5.373	20.644	0.000	0.000	0.000	0.000	90.717
Bloomberg								
ESG Score	1011	2.037	0.771	0.870	1.570	1.820	2.180	6.050
ESG Disclosure Score	1011	34.112	6.903	22.513	31.043	32.039	33.568	74.158
Sustainalytics								
ESG Score	747	48.314	5.546	33.770	44.760	47.630	49.480	79.260
ESG Disclosure Score	747	0.037	0.155	0.000	0.000	0.000	0.000	1.000
$CO2Sale^{Vol}$	252	0.634	1.165	0.000	0.023	0.084	0.618	5.534
$CO2Sale^{EPA}$	186	0.735	1.121	0.000	0.053	0.277	0.840	5.573
$CO2Sale^{Combine}$	378	0.666	1.131	0.000	0.029	0.157	0.764	5.732
$DonationSale^{Comm}$	230	3.305	14.944	0.000	0.000	0.263	1.411	197.823
$DonationSale^{Total}$	284	2.693	13.512	0.000	0.000	0.011	0.792	197.823

	N	Mean	SD	Min	p25	p50	p75	Max
Firm Characteristic								
Size	3032	6.252	1.616	2.910	5.161	6.235	7.340	12.429
MTB	3032	2.321	2.178	0.723	1.048	1.403	2.602	11.187
ROA	3032	-0.111	0.338	-1.524	-0.120	0.009	0.045	0.368
Investment	3032	0.140	0.208	0.000	0.007	0.047	0.182	0.962
Leverage	3032	0.564	0.281	0.058	0.329	0.569	0.844	1.000
Log(Float)	3032	5.325	1.734	0.000	4.681	5.455	6.130	12.250
$Log(Float)^2$	3032	31.362	18.773	0.000	21.915	29.757	37.577	150.065
Female$^{\%}$	3032	0.139	0.117	0.000	0.000	0.125	0.222	0.500
$ESGPay^{D}$	3032	0.148	0.355	0.000	0.000	0.000	0.000	1.000
ESGOwn$^{\%}$	3032	0.003	0.009	0.000	0.000	0.000	0.001	0.054
Analyst	1859	3.569	3.178	1.000	2.000	3.000	4.000	24.000
Z-score	2255	3.191	8.974	-18.530	0.381	2.446	5.374	38.080
SAIndex	3032	-3.544	0.701	-5.881	-3.927	-3.436	-3.111	-2.160
Net Cash Flow	2398	7.777	520.712	-10,347	-14.828	1.792	43.461	4,504

Table 2 **The Effects of the SRC Rule Reform on ESG Disclosure**

This table presents the results of difference-in-differences regressions that test the treatment effects of the Smaller Reporting Company rule reform on ESG disclosure. The dependent variables for columns (1) and (2), (3) and (4), and (5) and (6), respectively, are $ESG^{KPI}_{Disclosure}$, $Log(CSR^{Report}_{Score})$, and $I(CSR^{Report}_{Score}>0)$. *Treated* is an indicator variable that equals one if a firm's public float is between $75 million and $250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Dep:	$ESG^{KPI}_{Disclosure}$		$Log(CSR^{Report}_{Score})$		$I(CSR^{Report}_{Score}>0)$	
	(1)	(2)	(3)	(4)	(5)	(6)
Treated × *After*	-0.010***	-0.011***	-0.228***	-0.227***	-0.052***	-0.051***
	(0.002)	(0.002)	(0.057)	(0.056)	(0.013)	(0.013)
After	0.025***	-0.000	0.219***	-0.021	0.049***	-0.004
	(0.002)	(0.003)	(0.055)	(0.088)	(0.012)	(0.020)
Size	0.012***	0.003	0.101	-0.010	0.022	-0.003
	(0.005)	(0.005)	(0.073)	(0.078)	(0.016)	(0.018)
MTB	0.001	-0.000	-0.005	-0.019	-0.001	-0.004
	(0.001)	(0.001)	(0.012)	(0.012)	(0.003)	(0.003)
ROA	-0.009	-0.007	-0.212**	-0.191**	-0.048**	-0.043**
	(0.006)	(0.006)	(0.091)	(0.092)	(0.021)	(0.021)
Investment	-0.013	-0.002	-0.011	0.111	-0.002	0.025
	(0.009)	(0.009)	(0.163)	(0.162)	(0.037)	(0.036)
Leverage	0.009	0.000	0.079	-0.025	0.018	-0.006
	(0.006)	(0.005)	(0.118)	(0.122)	(0.026)	(0.027)
Log(Float)	0.002**	0.001	0.020	0.009	0.005	0.002
	(0.001)	(0.001)	(0.025)	(0.025)	(0.006)	(0.006)
$Log(Float)^2$	-0.000	-0.000	0.001	0.001	0.000	0.000
	(0.000)	(0.000)	(0.002)	(0.002)	(0.000)	(0.000)
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y
N	3032	3032	3032	3032	3032	3032
R^2	0.939	0.947	0.750	0.756	0.751	0.758

Table 3 **The Effects of the SRC Rule Reform on E, S, and G Disclosure**

This table presents the results of difference-in-differences regressions that test the treatment effects of the Smaller Reporting Company rule reform on E, S, and G disclosure. The dependent variables for columns (1) and (2), (3) and (4), and (5) and (6), respectively, are $E^{KPI}_{Disclosure}$, $S^{KPI}_{Disclosure}$, and $G^{KPI}_{Disclosure}$. *Treated* is an indicator variable that equals one if a firm's public float is between $75 million and $250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Dep:	$E^{KPI}_{Disclosure}$		$S^{KPI}_{Disclosure}$		$G^{KPI}_{Disclosure}$	
	(1)	(2)	(3)	(4)	(5)	(6)
Treated × *After*	-0.016***	-0.015***	-0.008**	-0.009**	-0.008***	-0.009***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.002)	(0.002)
After	0.022***	0.001	0.033***	-0.002	0.019***	0.001
	(0.004)	(0.005)	(0.003)	(0.004)	(0.002)	(0.003)
Size	0.011*	0.001	0.010*	-0.003	0.013***	0.008**
	(0.006)	(0.007)	(0.006)	(0.006)	(0.004)	(0.004)
MTB	-0.000	-0.002*	0.001	-0.000	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
ROA	-0.015*	-0.013	-0.009	-0.007	-0.004	-0.003
	(0.008)	(0.008)	(0.008)	(0.008)	(0.007)	(0.007)
Investment	0.008	0.017	-0.014	0.001	-0.020	-0.013
	(0.011)	(0.011)	(0.013)	(0.012)	(0.012)	(0.012)
Leverage	0.015**	0.007	-0.002	-0.015*	0.014*	0.008
	(0.007)	(0.007)	(0.009)	(0.009)	(0.008)	(0.008)
Log(Float)	0.000	-0.000	0.004***	0.003**	0.002	0.001
	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)
$Log(Float)^2$	0.000	0.000	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y
N	3032	3032	3032	3032	3032	3032
R^2	0.918	0.922	0.898	0.909	0.851	0.861

Table 4 **The Effects of the SRC Rule Reform on ESG Scores**

This table presents the results of difference-in-differences regressions that test the treatment effects of the Smaller Reporting Company rule reform on ESG scores. The dependent variables for columns (1) and (2), (3) and (4), (5) and (6), and (7) and (8), respectively, are $Log(ESG)$, $Log(E)$, $Log(S)$, and $Log(G)$. *Treated* is an indicator variable that equals one if a firm's public float is between $75 million and $250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Dep:	$Log(ESG)$		$Log(E)$		$Log(S)$		$Log(G)$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treated × *After*	-0.079***	-0.078***	-0.279**	-0.266**	-0.005	-0.009	-0.135***	-0.132***
	(0.019)	(0.019)	(0.111)	(0.110)	(0.028)	(0.028)	(0.028)	(0.028)
After	0.123***	0.001	-0.356***	-0.166*	0.102***	-0.010	0.140***	-0.019
	(0.015)	(0.024)	(0.080)	(0.087)	(0.019)	(0.026)	(0.022)	(0.036)
Size	0.115***	0.068***	0.162**	0.058	0.121***	0.082**	0.129***	0.075**
	(0.024)	(0.025)	(0.071)	(0.076)	(0.032)	(0.032)	(0.034)	(0.035)
MTB	0.012	0.006	-0.008	-0.020	0.016*	0.011	0.011	0.003
	(0.009)	(0.009)	(0.014)	(0.014)	(0.009)	(0.009)	(0.011)	(0.011)
ROA	-0.001	0.007	0.095	0.122	0.004	0.012	-0.015	-0.006
	(0.050)	(0.051)	(0.083)	(0.086)	(0.061)	(0.062)	(0.068)	(0.068)
Investment	-0.086	-0.039	-0.057	0.089	-0.063	-0.005	-0.162	-0.124
	(0.101)	(0.099)	(0.156)	(0.162)	(0.099)	(0.099)	(0.153)	(0.150)
Leverage	0.044	0.005	0.482***	0.347**	-0.045	-0.091	0.122	0.088
	(0.063)	(0.062)	(0.156)	(0.156)	(0.067)	(0.067)	(0.101)	(0.100)
Log(Float)	0.025**	0.020**	0.008	0.007	0.033***	0.028**	0.028	0.023
	(0.010)	(0.010)	(0.043)	(0.043)	(0.012)	(0.012)	(0.018)	(0.018)
$Log(Float)^2$	-0.002**	-0.002**	0.001	-0.000	-0.003***	-0.003***	-0.002	-0.002
	(0.001)	(0.001)	(0.004)	(0.004)	(0.001)	(0.001)	(0.002)	(0.002)
Firm FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y	N	Y
N	3032	3032	3032	3032	3032	3032	3032	3032
R^2	0.870	0.877	0.758	0.764	0.853	0.857	0.857	0.861

Table 5 **The Effects of the SRC Rule Reform on E, S, and G Subcategory Scores**

This table presents the results of difference-in-differences regressions that test the treatment effects of the Smaller Reporting Company rule reform on E, S, and G subcategory scores. In Panel A, the dependent variables for columns (1) and (2), (3) and (4), and (5) and (6), respectively, are the natural logarithms of one plus emission (*Emission*), environmental innovation (*Innovation*), and resource use (*Resource Use*) scores. In Panel B, the dependent variables for columns (1) and (2), (3) and (4), (5) and (6), and (7) and (8), respectively, are the natural logarithms of one plus community (*Community*), human rights (*Human Right*), product responsibility (*Product Responsibility*), and workforce (*Workforce*) scores. In Panel C, the dependent variables for columns (1) and (2), (3) and (4), and (5) and (6), respectively, are the natural logarithms of one plus management (*Management*), shareholders (*Shareholder*), and ESG strategy (*ESG Strategy*) scores. *Treated* is an indicator variable that equals one if a firm's public float is between $75 and $250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform years and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix A. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: The Effects of the SRC Rule Reform on E Subcategory Scores						
Dep:	*Emission*		*Innovation*		*Resource Use*	
	(1)	(2)	(3)	(4)	(5)	(6)
Treated × *After*	-0.067	-0.063	-0.134***	-0.125***	-0.162***	-0.162***
	(0.054)	(0.053)	(0.040)	(0.038)	(0.050)	(0.050)
After	0.234***	-0.008	0.182***	0.053	0.043	0.043
	(0.041)	(0.071)	(0.037)	(0.051)	(0.073)	(0.073)
Size	0.179***	0.059	0.035	-0.040	0.015	0.015
	(0.058)	(0.062)	(0.040)	(0.044)	(0.055)	(0.055)
MTB	0.030**	0.014	0.001	-0.009	-0.002	-0.002
	(0.013)	(0.014)	(0.010)	(0.010)	(0.011)	(0.011)
ROA	0.037	0.059	0.007	0.019	-0.069	-0.069
	(0.067)	(0.069)	(0.056)	(0.056)	(0.069)	(0.069)
Investment	0.102	0.229*	0.059	0.111*	0.225*	0.225*
	(0.132)	(0.135)	(0.056)	(0.060)	(0.119)	(0.119)
Leverage	0.014	-0.095	0.092	0.043	0.054	0.054
	(0.125)	(0.129)	(0.084)	(0.087)	(0.100)	(0.100)
Log(Float)	0.006	-0.005	-0.013	-0.019	-0.007	-0.007
	(0.023)	(0.023)	(0.011)	(0.011)	(0.026)	(0.026)
$Log(Float)^2$	0.002	0.001	0.001	0.001	0.002	0.002
	(0.002)	(0.002)	(0.001)	(0.001)	(0.002)	(0.002)
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y
N	3032	3032	3032	3032	3032	3032
R^2	0.881	0.886	0.918	0.920	0.880	0.880

Panel B: The Effects of the SRC Rule Reform on S Subcategory Scores								
Dep:	*Community*		*Human Right*		*Product Responsibility*		*Workforce*	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treated × *After*	0.089**	0.078*	-0.170***	-0.170***	0.041	0.027	-0.086**	-0.079**
	(0.044)	(0.044)	(0.056)	(0.055)	(0.072)	(0.073)	(0.040)	(0.040)
After	0.150***	-0.037	0.263***	0.018	0.251***	-0.020	-0.036	-0.020
	(0.026)	(0.039)	(0.050)	(0.075)	(0.050)	(0.069)	(0.030)	(0.049)
Size	0.092*	0.046	0.030	-0.080	0.231***	0.154*	0.181***	0.164***
	(0.055)	(0.056)	(0.058)	(0.063)	(0.083)	(0.087)	(0.035)	(0.037)
MTB	0.013	0.008	-0.003	-0.017*	0.040*	0.030	0.016	0.014
	(0.012)	(0.012)	(0.010)	(0.010)	(0.022)	(0.021)	(0.012)	(0.012)
ROA	-0.108	-0.098	-0.177**	-0.156**	-0.060	-0.044	0.154**	0.157**
	(0.097)	(0.097)	(0.073)	(0.074)	(0.152)	(0.150)	(0.064)	(0.063)
Investment	0.071	0.154	-0.096	0.033	-0.454	-0.325	0.092	0.093
	(0.141)	(0.144)	(0.156)	(0.154)	(0.314)	(0.313)	(0.131)	(0.131)
Leverage	-0.091	-0.154*	0.087	-0.020	0.014	-0.085	-0.125	-0.129
	(0.089)	(0.091)	(0.115)	(0.118)	(0.190)	(0.187)	(0.100)	(0.101)
Log(Float)	0.038***	0.030**	0.004	-0.007	0.114***	0.102**	-0.004	-0.004
	(0.014)	(0.014)	(0.024)	(0.023)	(0.042)	(0.042)	(0.018)	(0.018)
$Log(Float)^2$	-0.003**	-0.004***	0.001	0.001	-0.008**	-0.009**	-0.001	-0.001
	(0.001)	(0.001)	(0.002)	(0.002)	(0.004)	(0.004)	(0.002)	(0.002)
Firm FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y	N	Y
N	3032	3032	3032	3032	3032	3032	3032	3032
R^2	0.796	0.801	0.860	0.865	0.796	0.801	0.850	0.851

Panel C: The Effects of the SRC Rule Reform on G Subcategory Scores						
Dep:	*Management*		*Shareholder*		*CSR Strategy*	
	(1)	(2)	(3)	(4)	(5)	(6)
Treated × *After*	-0.146***	-0.137***	-0.074*	-0.074*	-0.206***	-0.206***
	(0.041)	(0.041)	(0.039)	(0.039)	(0.048)	(0.048)
After	0.173***	-0.064	0.027	0.027	0.015	0.015
	(0.029)	(0.047)	(0.056)	(0.056)	(0.067)	(0.067)
Size	0.146***	0.068	0.080*	0.080*	0.027	0.027
	(0.048)	(0.051)	(0.047)	(0.047)	(0.066)	(0.066)
MTB	0.010	-0.002	0.023	0.023	-0.003	-0.003
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
ROA	0.019	0.030	0.114	0.114	-0.214**	-0.214**
	(0.104)	(0.105)	(0.089)	(0.089)	(0.098)	(0.098)
Investment	-0.125	-0.083	-0.139	-0.139	-0.019	-0.019
	(0.229)	(0.226)	(0.146)	(0.146)	(0.173)	(0.173)
Leverage	0.195	0.156	-0.081	-0.081	-0.001	-0.001
	(0.126)	(0.125)	(0.123)	(0.123)	(0.102)	(0.102)
Log(Float)	0.055**	0.047*	-0.001	-0.001	-0.011	-0.011
	(0.026)	(0.026)	(0.021)	(0.021)	(0.024)	(0.024)
$Log(Float)^2$	-0.005*	-0.004*	0.000	0.000	0.002	0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y
N	3032	3032	3032	3032	3032	3032
R^2	0.848	0.852	0.872	0.872	0.823	0.823

Table 6 **Board and Shareholder Attenuation**

This table presents the analysis regarding the effect of board and shareholder characteristics on post-reform ESG score. For all columns, the dependent variable is $Log(ESG)$. *Treated* is an indicator variable that equals one if a firm's public float is between \$75 million and \$250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. $HighFemale^D$ is an indicator variable that equals one if a firm's female director ratio in the pre-reform year is above the median value and zero otherwise. $ESGPay^D$ is an indicator variable that equals one if a firm adopts a non-financial performance-oriented compensation policy for executives based on ESG or sustainability factors in the pre-reform year and zero otherwise. $ESG^D_{Investor}$ is an indicator variable that equals one if ESG-focused institutional investors have outstanding shares of the firm in the pre-reform year and zero otherwise. $HighAnalyst^D$ is an indicator variable that equals one if a firm's analyst coverage in the pre-reform year is above the median value and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Dep: $Log(ESG)$	(1)	(2)	(3)	(4)
$Treated \times After \times HighFemale^D$	0.097**			
	(0.038)			
$Treated \times After \times ESGPay^D$		0.125**		
		(0.051)		
$Treated \times After \times ESG^D_{Investor}$			0.158***	
			(0.050)	
$Treated \times After \times HighAnalyst^D$				0.127**
				(0.051)
$Treated \times After$	-0.126***	-0.096***	-0.195***	-0.093***
	(0.027)	(0.021)	(0.045)	(0.030)
$After \times HighFemale^D$	-0.063**			
	(0.027)			
$After \times ESGPay^D$		-0.049		
		(0.031)		
$After \times ESG^D_{Investor}$			-0.116***	
			(0.037)	
$After \times HighAnalyst^D$				-0.091***
				(0.032)
$After$	0.035	0.009	0.088**	0.032
	(0.030)	(0.025)	(0.037)	(0.035)
Control	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
N	3032	3032	3032	1859
R^2	0.877	0.877	0.878	0.900

Table 7 **Financial Constraints Exacerbation**

This table presents the analysis regarding the effect of financial constraints on post-reform ESG score. For all columns, the dependent variable is $Log(ESG)$. *Treated* is an indicator variable that equals one if a firm's public float is between $75 million and $250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. $LowZ^D$ is an indicator variable that equals one if a firm's Altman Z-score in the pre-reform year is below the median value and zero otherwise. $HighSA^D$ is an indicator variable that equals one if a firm's SA Index in the pre-reform year is above the median value and zero otherwise. $Persistent_{NCF}^{Negative}$ is an indicator variable that equals one if a firm's net cash flow is persistently negative in the pre-reform periods and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Dep: $Log(ESG)$	(1)	(2)	(3)
$Treated \times After \times LowZ^D$	-0.123***		
	(0.046)		
$Treated \times After \times HighSA^D$		-0.098**	
		(0.039)	
$Treated \times After \times Persistent_{NCF}^{Negative}$			-0.102**
			(0.049)
$Treated \times After$	-0.023	-0.033	-0.078***
	(0.031)	(0.025)	(0.025)
$After \times LowZ^D$	0.051		
	(0.032)		
$After \times HighSA^D$		0.052*	
		(0.028)	
$After \times Persistent_{NCF}^{Negative}$			-0.049
			(0.037)
$After$	-0.023	-0.023	0.005
	(0.029)	(0.027)	(0.026)
Control	Y	Y	Y
Firm FE	Y	Y	Y
Year FE	Y	Y	Y
N	2255	3032	2398
R^2	0.885	0.877	0.886

Table 8 **Different Bandwidth Test**

This table presents the results of difference-in-differences regressions that test the treatment effects of the Smaller Reporting Company rule reform on ESG scores depending on different bandwidths. In Panel A, I restrict the sample to firms with public floats between \$0 and \$250 million. In Panel B, I restrict the sample to firms with public floats between \$75 and \$500 million. The dependent variables for columns (1) and (2), (3) and (4), (5) and (6), and (7) and (8), respectively, are $Log(ESG)$, $Log(E)$, $Log(S)$, and $Log(G)$. *Treated* is an indicator variable that equals one if a firm's public float is between \$75 million and \$250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Firms with public floats between \$0 and \$250 million								
Dep:	$Log(ESG)$		$Log(E)$		$Log(S)$		$Log(G)$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treated × *After*	-0.115***	-0.131***	-0.223*	-0.238*	-0.092**	-0.106***	-0.169***	-0.190***
	(0.028)	(0.029)	(0.125)	(0.123)	(0.041)	(0.041)	(0.040)	(0.041)
After	0.159***	0.020	-0.422***	-0.148	0.188***	0.029	0.179***	-0.011
	(0.026)	(0.033)	(0.098)	(0.111)	(0.036)	(0.039)	(0.037)	(0.053)
Size	0.117***	0.072**	0.151**	0.065	0.141***	0.097***	0.115***	0.067*
	(0.028)	(0.029)	(0.074)	(0.077)	(0.037)	(0.037)	(0.038)	(0.040)
MTB	0.012	0.005	-0.005	-0.014	0.018*	0.012	0.008	0.000
	(0.010)	(0.009)	(0.015)	(0.015)	(0.010)	(0.010)	(0.013)	(0.012)
ROA	0.002	0.007	0.192**	0.204**	0.006	0.012	-0.030	-0.024
	(0.053)	(0.053)	(0.078)	(0.080)	(0.065)	(0.065)	(0.070)	(0.070)
Investment	-0.068	-0.024	0.021	0.104	-0.062	-0.004	-0.130	-0.089
	(0.107)	(0.104)	(0.136)	(0.143)	(0.103)	(0.102)	(0.162)	(0.159)
Leverage	0.063	0.024	0.520***	0.428***	-0.006	-0.053	0.125	0.090
	(0.069)	(0.068)	(0.151)	(0.151)	(0.076)	(0.076)	(0.112)	(0.111)
Log(Float)	0.022	0.015	-0.023	-0.023	0.026*	0.020	0.023	0.013
	(0.014)	(0.014)	(0.040)	(0.040)	(0.014)	(0.015)	(0.023)	(0.023)
$Log(Float)^2$	-0.002	-0.002	0.006	0.005	-0.003**	-0.003**	-0.002	-0.002
	(0.001)	(0.002)	(0.004)	(0.004)	(0.001)	(0.001)	(0.003)	(0.003)
Firm FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y	N	Y
N	2220	2220	2220	2220	2220	2220	2220	2220
R^2	0.872	0.879	0.792	0.797	0.855	0.860	0.855	0.859

Panel B: Firms with public floats between $75 and $500 million								
Dep:	$Log(ESG)$		$Log(E)$		$Log(S)$		$Log(G)$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treated × *After*	-0.054**	-0.038*	-0.313**	-0.291**	0.053*	0.061**	-0.114***	-0.090***
	(0.021)	(0.021)	(0.137)	(0.136)	(0.028)	(0.028)	(0.032)	(0.033)
After	0.094***	-0.009	-0.298***	-0.195*	0.057***	-0.048	0.099***	-0.039
	(0.017)	(0.030)	(0.115)	(0.115)	(0.019)	(0.030)	(0.025)	(0.044)
Size	0.100***	0.052**	0.183	0.075	0.065**	0.023	0.145***	0.091**
	(0.023)	(0.024)	(0.112)	(0.120)	(0.029)	(0.031)	(0.040)	(0.044)
MTB	0.009*	0.003	-0.014	-0.026	0.015**	0.010	0.007	-0.001
	(0.005)	(0.005)	(0.026)	(0.027)	(0.006)	(0.006)	(0.010)	(0.009)
ROA	-0.060	-0.042	-0.021	0.037	0.071	0.090	-0.146	-0.131
	(0.050)	(0.050)	(0.195)	(0.205)	(0.070)	(0.069)	(0.094)	(0.095)
Investment	-0.076	-0.039	-0.068	0.117	0.127	0.178*	-0.336**	-0.316**
	(0.075)	(0.072)	(0.327)	(0.334)	(0.105)	(0.103)	(0.162)	(0.160)
Leverage	0.083	0.053	0.622**	0.434*	-0.079	-0.124**	0.275***	0.263***
	(0.052)	(0.051)	(0.241)	(0.247)	(0.057)	(0.059)	(0.101)	(0.100)
Log(Float)	0.030	0.019	-0.082	-0.081	0.023	0.018	0.040	0.023
	(0.020)	(0.019)	(0.071)	(0.072)	(0.026)	(0.026)	(0.040)	(0.040)
$Log(Float)^2$	-0.001	-0.001	0.004	0.002	-0.002	-0.003	-0.001	-0.000
	(0.001)	(0.001)	(0.006)	(0.006)	(0.002)	(0.002)	(0.003)	(0.003)
Firm FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y	N	Y
N	1936	1936	1936	1936	1936	1936	1936	1936
R^2	0.854	0.860	0.693	0.699	0.834	0.838	0.858	0.861

Table 9 **Placebo Reform Year Analysis**

This table presents the results of the difference-in-differences regressions of the treatment effects of the Smaller Reporting Company rule reform on ESG scores during the periods around placebo reforms, i.e., 2015–2018, 2017–2020, and 2018–2021. For every column the dependent variable is $Log(ESG)$. $Treated^P$ is an indicator variable that equals one if a firm's public float is between \$75 million and \$250 million in the placebo pre-reform years, i.e., 2016, 2018, and 2019, respectively, and zero otherwise. $After^P$ is an indicator variable that equals one for the post placebo-reform period after the placebo-effective dates, i.e., September 10, 2017, 2019, and 2020, respectively, and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	2015-2018		2017-2020		2018-2021	
Dep: $Log(ESG)$	(1)	(2)	(3)	(4)	(5)	(6)
$Treated^P \times After^P$	0.010	0.012	-0.016	-0.022	0.007	-0.001
	(0.030)	(0.030)	(0.022)	(0.022)	(0.021)	(0.020)
$After^P$	0.078***	-0.010	0.152***	0.023	0.189***	0.038
	(0.016)	(0.026)	(0.015)	(0.024)	(0.014)	(0.025)
Size	0.080***	0.051*	0.097***	0.058***	0.111***	0.067***
	(0.028)	(0.029)	(0.020)	(0.020)	(0.020)	(0.020)
MTB	0.005	0.008	0.014**	0.012*	0.007	0.009*
	(0.006)	(0.006)	(0.007)	(0.007)	(0.005)	(0.005)
ROA	-0.033	-0.045	-0.010	0.015	0.044	0.027
	(0.047)	(0.047)	(0.038)	(0.037)	(0.034)	(0.033)
Investment	-0.161	-0.150	-0.044	0.012	0.030	0.056
	(0.128)	(0.123)	(0.071)	(0.069)	(0.069)	(0.068)
Leverage	-0.023	-0.019	-0.059	-0.059	0.035	0.002
	(0.072)	(0.071)	(0.060)	(0.058)	(0.046)	(0.045)
Log(Float)	0.021*	0.018	0.041***	0.034***	0.013	0.005
	(0.012)	(0.012)	(0.011)	(0.011)	(0.012)	(0.012)
$Log(Float)^2$	-0.000	-0.001	-0.003***	-0.003***	0.000	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y
N	1894	1894	3248	3248	3138	3138
R^2	0.927	0.928	0.845	0.852	0.851	0.863

Table 10 **Analysis of ESG Disclosure and Score from Different Databases**

This table presents the results of the difference-in-differences regressions examining the treatment effects of the Smaller Reporting Company rule reform on ESG disclosure scores and ESG scores from Bloomberg and Sustainalytics. The dependent variable is the natural logarithm of 1 plus the ESG disclosure scores from Bloomberg and Sustainalytics in the odd-numbered columns, and the natural logarithm of 1 plus the ESG scores from both databases in the even-numbered columns. *Treated* is an indicator variable that equals one if a firm's public float is between $75 million and $250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	Bloomberg		Sustainalytics	
Dep:	Disclosure	ESGScore	Disclosure	ESGScore
	(1)	(2)	(3)	(4)
Treated × *After*	-0.020***	-0.029**	-0.199***	-0.049**
	(0.007)	(0.012)	(0.072)	(0.021)
After			0.084*	-0.027
			(0.051)	(0.020)
Size	0.001	0.006	0.126**	0.012
	(0.008)	(0.014)	(0.052)	(0.015)
MTB	-0.003**	-0.004*	0.021	-0.003
	(0.001)	(0.003)	(0.014)	(0.008)
ROA	-0.024**	-0.065***	-0.176	-0.089*
	(0.011)	(0.021)	(0.129)	(0.053)
Investment	0.017	-0.047	-0.780**	-0.116
	(0.018)	(0.033)	(0.346)	(0.226)
Leverage	0.011	0.018	-0.145	-0.047
	(0.015)	(0.023)	(0.094)	(0.045)
Log(Float)	0.000	0.002	-0.077**	-0.017
	(0.003)	(0.005)	(0.031)	(0.012)
$Log(Float)^2$	-0.000	-0.000	0.008**	0.002
	(0.000)	(0.001)	(0.004)	(0.002)
Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
N	1011	1011	747	747
R^2	0.939	0.910	0.968	0.989

Table 11 **Real Effect: Carbon Emission and Donation**

This table presents the results of the difference-in-differences regressions examining the treatment effects of the Smaller Reporting Company rule reform on firms' carbon emissions and donations. In Panel A, the dependent variables are $CO2Sale^{Vol}$, $CO2Sale^{EPA}$, and $CO2Sale^{Combine}$ in columns (1)–(2), (3)–(4), and (5)–(6), respectively. In Panel B, the dependent variables are $DonationSale^{Comm}$ and $DonationSale^{Total}$ in columns (1)–(2) and (3)–(4), respectively. *Treated* is an indicator variable that equals one if a firm's public float is between \$75 million and \$250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Carbon Intensity						
Dep:	$CO2Sale^{Vol}$		$CO2Sale^{EPA}$		$CO2Sale^{Combine}$	
	(1)	(2)	(3)	(4)	(5)	(6)
Treated × *After*	0.046	0.060	0.209	0.317*	0.069	0.111
	(0.089)	(0.100)	(0.181)	(0.183)	(0.176)	(0.181)
After	-0.050	-0.051	-0.113	-0.273**	-0.021	-0.039
	(0.042)	(0.042)	(0.084)	(0.133)	(0.047)	(0.058)
Control	N	Y	N	Y	N	Y
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y
N	252	243	186	183	378	367
R^2	0.983	0.986	0.940	0.947	0.952	0.954

Panel B: Donation Amount				
Dep:	$DonationSale^{Comm}$		$DonationSale^{Total}$	
	(1)	(2)	(3)	(4)
Treated × *After*	1.308	0.195	1.020	0.925
	(1.302)	(1.107)	(1.063)	(0.914)
After	0.319	-0.954	0.249	-0.220
	(0.676)	(1.143)	(0.593)	(0.718)
Control	N	Y	N	Y
Firm FE	Y	Y	Y	Y
Year FE	N	Y	N	Y
N	230	224	284	278
R^2	0.951	0.881	0.951	0.860

Internet Appendix

Table A1 **10-K and DEF 14A Disclosures**

This table presents the results of difference-in-differences regressions that test the treatment effects of the Smaller Reporting Company rule reform on 10-K and DEF 14A disclosures. The dependent variables for columns (1) and (2), (3) and (4), (5) and (6), and (7) and (8), respectively, are *Log(*$E_{Num}^{Item\ 1A}$*)*, *Log(*$S_{Num}^{Item\ 1A}$*)*, *Log(*$G_{Num}^{Item\ 1A}$*)*, and *Log(*$G_{FileSize}^{DEF\ 14A}$*)*. *Treated* is an indicator variable that equals one if a firm's public float is between \$75 million and \$250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are cluster-robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Dep:	$Log(E_{Num}^{Item\ 1A})$		$Log(S_{Num}^{Item\ 1A})$		$Log(G_{Num}^{Item\ 1A})$		$Log(G_{FileSize}^{DEF\ 14A})$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treated × *After*	-0.039*	-0.041*	-0.008	-0.009	-0.005	-0.005	-0.137***	-0.128***
	(0.023)	(0.023)	(0.017)	(0.017)	(0.017)	(0.017)	(0.036)	(0.036)
After	0.060***	-0.000	0.061***	-0.015	0.050***	-0.018	0.163***	0.235***
	(0.017)	(0.033)	(0.012)	(0.025)	(0.012)	(0.029)	(0.027)	(0.064)
Size	0.068***	0.061***	0.056***	0.044**	0.052***	0.039**	0.160***	0.108***
	(0.020)	(0.023)	(0.017)	(0.018)	(0.017)	(0.018)	(0.033)	(0.035)
MTB	0.002	0.001	0.002	0.001	0.004	0.003	0.018**	0.012
	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)	(0.009)	(0.009)
ROA	-0.024	-0.025	0.021	0.021	0.035	0.034	-0.116*	-0.108*
	(0.027)	(0.027)	(0.032)	(0.032)	(0.028)	(0.027)	(0.064)	(0.062)
Investment	-0.089	-0.083	-0.051	-0.044	-0.028	-0.023	-0.292**	-0.257**
	(0.057)	(0.057)	(0.073)	(0.072)	(0.058)	(0.058)	(0.120)	(0.120)
Leverage	0.076	0.061	0.095*	0.073	0.033	0.013	0.163**	0.113
	(0.054)	(0.056)	(0.049)	(0.049)	(0.050)	(0.050)	(0.083)	(0.081)
Log(Float)	-0.009	-0.008	0.002	0.002	0.000	-0.000	0.035	0.032
	(0.012)	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)	(0.024)	(0.024)
$Log(Float)^2$	0.000	-0.000	-0.001	-0.002	-0.001	-0.002	-0.000	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
Firm FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y	N	Y
N	2072	2072	2072	2072	2072	2072	3023	3023
R^2	0.968	0.968	0.976	0.976	0.975	0.975	0.808	0.812

Table A2 **Board and Shareholder Attenuation (Disclosure)**

This table presents the analysis regarding the effect of board and shareholder characteristics on post-reform ESG disclosure. For all columns, the dependent variable is $ESG^{KPI}_{Disclosure}$. *Treated* is an indicator variable that equals one if a firm's public float is between $75 million and $250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. $HighFemale^{D}$ is an indicator variable that equals one if a firm's female director ratio in the pre-reform year is above the median value and zero otherwise. $ESGPay^{D}$ is an indicator variable that equals one if a firm adopts a non-financial performance-oriented compensation policy for executives based on ESG or sustainability factors in the pre-reform year and zero otherwise. $ESG^{D}_{Investor}$ is an indicator variable that equals one if ESG-focused institutional investors have outstanding shares of the firm in the pre-reform year and zero otherwise. $HighAnalyst^{D}$ is an indicator variable that equals one if a firm's analyst coverage in the pre-reform year is above the median value and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, $Log(Float)^2$, and their interactions with *After*. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Dep: $ESG^{KPI}_{Disclosure}$	(1)	(2)	(3)	(4)
$Treated \times After \times HighFemale^{D}$	0.009**			
	(0.005)			
$Treated \times After \times ESGPay^{D}$		-0.000		
		(0.007)		
$Treated \times After \times ESG^{D}_{Investor}$			0.009*	
			(0.005)	
$Treated \times After \times HighAnalyst^{D}$				0.012*
				(0.007)
$Treated \times After$	-0.014***	-0.010***	-0.016***	-0.014***
	(0.003)	(0.002)	(0.004)	(0.004)
$After \times HighFemale^{D}$	-0.004			
	(0.004)			
$After \times ESGPay^{D}$		0.003		
		(0.005)		
$After \times ESG^{D}_{Investor}$			-0.006	
			(0.004)	
$After \times HighAnalyst^{D}$				-0.008
				(0.005)
After	0.004	0.003	0.003	-0.014
	(0.010)	(0.009)	(0.009)	(0.014)
Control	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
N	3032	3032	3032	1859
R^2	0.947	0.947	0.947	0.955

Table A3 **Financial Constraints Exacerbation (Disclosure)**

This table presents the analysis regarding the effect of financial constraints on post-reform ESG disclosure. For all columns, the dependent variable is $ESG^{KPI}_{Disclosure}$. *Treated* is an indicator variable that equals one if a firm's public float is between $75 million and $250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. $LowZ^D$ is an indicator variable that equals one if a firm's Altman Z-score in the pre-reform year is below the median value and zero otherwise. $HighSA^D$ is an indicator variable that equals one if a firm's SA Index in the pre-reform year is above the median value and zero otherwise. $Persistent^{Negative}_{NCF}$ is an indicator variable that equals one if a firm's net cash flow is persistently negative in the pre-reform periods and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, $Log(Float)^2$, and their interactions with *After*. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Dep: $ESG^{KPI}_{Disclosure}$	(1)	(2)	(3)
$Treated \times After \times LowZ^D$	-0.010*		
	(0.006)		
$Treated \times After \times HighSA^D$		-0.010**	
		(0.005)	
$Treated \times After \times Persistent^{Negative}_{NCF}$			-0.008
			(0.008)
$Treated \times After$	-0.006	-0.004	-0.011***
	(0.004)	(0.003)	(0.003)
$After \times LowZ^D$	0.002		
	(0.005)		
$After \times HighSA^D$		0.005	
		(0.005)	
$After \times Persistent^{Negative}_{NCF}$			-0.007
			(0.006)
$After$	-0.006	-0.002	-0.014
	(0.013)	(0.011)	(0.012)
Control	Y	Y	Y
Firm FE	Y	Y	Y
Year FE	Y	Y	Y
N	2255	3032	2398
R^2	0.952	0.947	0.950

Table A4 **Post-Matching DID Analysis**

This table presents the results of post-matching difference-in-differences regressions that test the treatment effects of the Smaller Reporting Company rule reform on ESG scores. For the analysis, I employ the propensity score matching method based on a firm's pre-reform levels of *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, $Log(Float)^2$, and industry. The dependent variables for columns (1) and (2), (3) and (4), (5) and (6), and (7) and (8), respectively, are $Log(ESG)$, $Log(E)$, $Log(S)$, and $Log(G)$. *Treated* is an indicator variable that equals one if a firm's public float is between $75 million and $250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Dep:	$Log(ESG)$		$Log(E)$		$Log(S)$		$Log(G)$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treated × *After*	-0.093***	-0.091***	-0.428**	-0.425**	-0.051	-0.051	-0.146***	-0.144***
	(0.028)	(0.028)	(0.172)	(0.171)	(0.044)	(0.044)	(0.042)	(0.042)
After	0.131***	0.058	-0.363***	-0.081	0.153***	0.084*	0.141***	-0.011
	(0.021)	(0.043)	(0.123)	(0.135)	(0.035)	(0.047)	(0.034)	(0.057)
Size	0.072**	0.028	-0.048	-0.122	0.049	0.016	0.123**	0.069
	(0.032)	(0.033)	(0.145)	(0.150)	(0.042)	(0.044)	(0.059)	(0.062)
MTB	0.009	0.003	-0.024	-0.037	0.026*	0.021	-0.004	-0.011
	(0.007)	(0.007)	(0.029)	(0.030)	(0.013)	(0.013)	(0.013)	(0.012)
ROA	0.059	0.059	0.046	0.045	0.031	0.030	0.083	0.084
	(0.051)	(0.052)	(0.101)	(0.106)	(0.056)	(0.057)	(0.092)	(0.093)
Investment	0.069	0.092	-0.371	-0.254	-0.015	0.024	0.118	0.135
	(0.113)	(0.110)	(0.296)	(0.302)	(0.115)	(0.120)	(0.170)	(0.164)
Leverage	0.071	0.017	0.576**	0.364	-0.014	-0.079	0.235*	0.186
	(0.073)	(0.072)	(0.260)	(0.264)	(0.082)	(0.084)	(0.134)	(0.137)
Log(Float)	0.034	0.033	-0.031	-0.017	0.038	0.038	0.039	0.035
	(0.021)	(0.021)	(0.062)	(0.064)	(0.026)	(0.026)	(0.032)	(0.032)
$Log(Float)^2$	-0.003	-0.003	0.003	0.001	-0.004*	-0.004*	-0.003	-0.003
	(0.002)	(0.002)	(0.005)	(0.005)	(0.002)	(0.002)	(0.003)	(0.004)
Firm FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y	N	Y
N	1064	1064	1064	1064	1064	1064	1064	1064
R^2	0.863	0.868	0.692	0.700	0.818	0.821	0.849	0.853

Table A5 **"Donut-Hole" Analysis**

This table presents the results of difference-in-differences regressions testing the treatment effects of the Smaller Reporting Company rule reform on ESG scores, after excluding observations within the 1%, 3%, and 5% radii around the float threshold. For all columns, the dependent variable is *Log*(*ESG*). *Treated* is an indicator variable that equals one if a firm's public float is between $75 million and $250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and *Log*$(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Sample Exclusion Radius:	1%		3%		5%	
Dep: *Log*(*ESG*)	(1)	(2)	(3)	(4)	(5)	(6)
Treated × *After*	-0.077***	-0.076***	-0.075***	-0.074***	-0.078***	-0.078***
	(0.019)	(0.019)	(0.020)	(0.020)	(0.020)	(0.020)
After	0.120***	0.000	0.120***	0.001	0.120***	0.008
	(0.015)	(0.024)	(0.015)	(0.024)	(0.015)	(0.024)
Size	0.114***	0.067***	0.118***	0.072***	0.123***	0.078***
	(0.025)	(0.025)	(0.025)	(0.026)	(0.025)	(0.026)
MTB	0.013	0.006	0.013	0.006	0.014	0.007
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
ROA	0.001	0.010	-0.001	0.009	-0.011	-0.001
	(0.051)	(0.051)	(0.051)	(0.051)	(0.051)	(0.052)
Investment	-0.083	-0.037	-0.085	-0.038	-0.104	-0.055
	(0.101)	(0.099)	(0.103)	(0.101)	(0.106)	(0.104)
Leverage	0.040	-0.000	0.031	-0.007	0.023	-0.019
	(0.063)	(0.062)	(0.064)	(0.063)	(0.066)	(0.065)
Log(Float)	0.026**	0.021**	0.027***	0.023**	0.027***	0.022**
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Log$(Float)^2$	-0.002**	-0.002**	-0.002**	-0.002**	-0.002**	-0.002**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y
N	2992	2992	2938	2938	2864	2864
R^2	0.871	0.877	0.873	0.879	0.874	0.880

Table A6 **Real Effect Disclosure: Carbon Emission and Donation**

This table presents the results of the difference-in-differences regressions examining the treatment effects of the Smaller Reporting Company rule reform on firms' carbon emissions and donations. In Panel A, the dependent variables are $CO2^{Vol}_{Disclose}$, $CO2^{EPA}_{Disclose}$, and $CO2^{Combine}_{Disclose}$ in columns (1)–(2), (3)–(4), and (5)–(6), respectively. In Panel B, the dependent variables are $Donation^{Comm}_{Disclose}$ and $Donation^{Total}_{Disclose}$ in columns (1)–(2) and (3)–(4), respectively. *Treated* is an indicator variable that equals one if a firm's public float is between $75 million and $250 million in the pre-reform year and zero otherwise. *After* is an indicator variable that equals one for the post-reform periods and zero otherwise. Control variables include *Size*, *MTB*, *ROA*, *Investment*, *Leverage*, *Log(Float)*, and $Log(Float)^2$. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. All financial variables are winsorized at 1% to control for outliers and are defined in Appendix C. Numbers in parentheses are standard errors clustered at the firm levels. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Carbon Disclosure						
Dep:	$CO2^{Vol}_{Disclose}$		$CO2^{EPA}_{Disclose}$		$CO2^{Combine}_{Disclose}$	
	(1)	(2)	(3)	(4)	(5)	(6)
Treated × *After*	-0.032**	-0.022*	0.007	0.008	-0.010	-0.003
	(0.013)	(0.013)	(0.005)	(0.005)	(0.012)	(0.012)
After	-0.007	-0.011	-0.006*	-0.006*	-0.019	-0.022
	(0.020)	(0.020)	(0.004)	(0.004)	(0.020)	(0.020)
Control	N	Y	N	Y	N	Y
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	N	Y	N	Y	N	Y
N	3252	3191	3252	3191	3252	3191
R^2	0.791	0.798	0.938	0.937	0.859	0.861

Panel B: Donation Disclosure				
Dep:	$Donation^{Comm}_{Disclose}$		$Donation^{Total}_{Disclose}$	
	(1)	(2)	(3)	(4)
Treated × *After*	-0.018**	-0.015*	-0.017**	-0.014*
	(0.008)	(0.008)	(0.008)	(0.008)
After	0.029*	0.027	0.028*	0.027
	(0.017)	(0.017)	(0.017)	(0.017)
Control	N	Y	N	Y
Firm FE	Y	Y	Y	Y
Year FE	N	Y	N	Y
N	3252	3191	3252	3191
R^2	0.786	0.788	0.791	0.793